MINUTES OF 20th RECONSTITUTED EXPERT APPRAISAL COMMITTEE (INDUSTRY) HELD DURING 23RD JUNE 2014 TO 24TH JUNE 2014

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

20.1 Opening Remarks of the Vice -Chairman

At the outset, Vice -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.

20.2 Confirmation of the Minutes of the 19th Reconstituted Expert Appraisal Committee (Industry) held during 28-30TH May 2014

The minutes of the 19th Reconstituted Expert Appraisal Committee (Industry) meeting held during 28-30th May 2014 were confirmed subject to the following corrections:

1. Agenda No.: 19.9.12

Sl. No.	As per MoM (28th-30th May '14)	Modifications
1.	Title	Expansion in existing crude oil carrying capacity from 200,000 bopd to 300, 000 bopd and natural gas carrying capacity from 6.3 mmscfd to 40 mmscfd in Mangala Development Pipeline & development of new 280 mmscfd natural gas pipeline from RGT to Palanpur of M/s Cairn India Ltd., dist. Barmer, Rajasthan (TOR)
2.	Gas compressor locations	The proposed increased natural gas carrying capacity from 6.3 mmscfd to 40 mmscfd will be achieved by the installation of gas compressors at 9 locations including Viramgam terminal. Approximately 8 MW power shall be required for proposed each location. The additional land required at 9 locations for compressors to be shall be 2 ha each.
3	Expansion project cost	The cost of proposed crude oil pipeline expansion project is estimated to be Rs. 1300 crores.
4	New gas pipeline	To sell excess gas from the RJ-ON/90/1 block, laying of a new natural gas pipeline of 30" diameter with 280 mmscfd gas flow from Raageshwari Gas Terminal to Palanpur (Banaskantha, Gujarat) is also proposed. The cost for the new pipeline is estimated to be Rs. 900 crores.
5	Public Hearing & Annexure-7	After detailed deliberation, the Committee recommended the TOR at Annexure-6 for preparation of EIA –EMP report along with Public Hearing at Viramgam only.

2. **Agenda Item No. 19.7.11** Proposed Scientific Organic Chemical & Bulk Drugs and Intermediates of M/s Virchow Agrochemical Pvt. Ltd at Sy. No. 636-642, Village Peddapally, Mandal Jadchela, District Mehboobnagar, A.P. (EC)

The word "Scientific" is replaced with "Synthetic" and M/s Virchow Agrochemical Pvt. Ltd. is replaced with "M/s Virchow Petrochemcial Pvt. Ltd.)

MONDAY, 23rd June 2014

20.3 Environmental Clearance

20.3.1 Proposed expansion of existing steel plant from 1.0 MTPA to 3.5 MTPA Integrated Steel Plant of **M/s Mideast Integrated Steels Ltd.** at Kalinganagar Industrial Complex, Tehsil – Danagadi, District Jajpur, Odisha **(EC)**

The Committee deferred the consideration of the above proposal since most of the members of the EAC have not received the requisite documents concerned with the project. The Committee recommended that proposal may be placed before the EAC in its next meeting for consideration.

20.3.2 Proposed 1x 6 MVA Submerged Arc Furnace and 1x8 T Induction Furnace (Expansion) Project of **M/s Jagadamba Ispat Private Limited** at Mouza, village Maheshpur, P.O. & P.S. Salanpur District Burdwan, West Bengal **(EC)**

M/s Jagadamba Ispat Private Limited (***herein after Project Proponent –PP***) and their EIA-EMP consultant M/s Environ India - Kolkata gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per the Terms of Reference (ToRs) awarded during the 9th meeting of the Expert Appraisal Committee (Industry) held on 10-11th June, 2013 for preparation of EIA-EMP report. The TOR was awarded by MoEF vide F.No. J-11011/118/2013-IA.II(I) dated 10.09.2013 for preparation of EIA-EMP report. PP submitted the final EIA-EMP report vide letter no. nil dated 20.03.2014 after conducting Public Hearing for grant of Environmental Clearance. 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.

2. The salient points of the proposed project as per the final EIA-EMP report submitted by project authorities vide letter referred above in para 1 are as follows:

M/s Jagdamba Ispat Private Limited have proposed to expand their existing Induction Furnace by addition of 1x 8T Induction Furnace and 1x6 MVA Submerged Arc Furnace at Mouza, village Maheshpur, P.O. & P.S. Salanpur, District Burdwan, West Bengal. The existing plant got Consent to Establish and Consent to Operate (Renewal) from the West Bengal Pollution Control Board on 23.12.2004 and 19.12.2011 respectively. The capital investment for the existing project is Rs.3.95 crores and not covered under the purview of the EIA Notification 1994. Further, the unit had obtained CTE prior to the EIA Notification 2006 dated 14.09.2006, hence the existing unit is not covered under the purview of EIA Notification 2006. The project will be set up within the existing plant premises of 4.50 acres. The latitude and longitude of the project site is 23^0 47' 08.63" N and 86^0 50' 16.59" E respectively. No Forest land is involved. No Defense Installation, Biosphere Reserve, National Park/Wild Life Sanctuary, Ecologically Sensitive Area is located within 10 km radius of the project site. No court case/litigation is pending against the proposed project. Total cost of the project is Rs. 27.80 crores. Rs. 1.50 crores and Rs. 18.0 lakhs is earmarked for the capital cost and recurring cost per annum towards the environmental pollution control measures. Rs. 1.40 crores is earmarked towards the Enterprise Social Commitment based on Public Hearing issues over a period of ten years.

The capacity of existing and proposed project activity has been tabulated below:

	Plant	Existing	Additional	Total
Main Plant	Induction Furnace	1 X 7 T	1 X 8 T	1x7 T and 1x8 T
	Submerged Arc Furnace	-	1 X 6 MVA	1 X 6 MVA
Product	M.S. Ingot	25,200 TPA	26,400TPA	51,600 TPA
	Ferro Manganese	-	4,357 TPA	4,357 TPA
	Silico Manganese	-	3,325 TPA	3,325 TPA
	Ferro Silicon	-	1,404 TPA	1,404 TPA

Consent to Establish and Consent to Operate (Renewal) for the existing unit was obtained from the West Bengal Pollution Control Board on 23.12.2004 and 19.12.2011 respectively. WBPCB had sent the certified compliance report for the existing unit vide letter dated 6.2.2014. The Committee noted that the as per the report furnished, compliance to the consent conditions were being met.

Ferro Alloys are produced by carbothermic reactions, involving reduction of oxides with carbon (as coke) in the presence of iron. The basic raw materials required for manufacturing Ferro Alloys (Fe-Mn or Si-Mn or Fe-Si or product mix of all) are Manganese Ore (8,191 TPA), Coke Breeze (1,373 TPA), Quartz (1,476 TPA), Dolomite (1,742), Fe Mn Slag (1,110 TPA), Iron Scrap (757 TPA), Pet Coke (817 TPA). The raw materials required for manufacturing M.S. Ingots are Sponge Iron (21,596 TPA), Steel Scrap (7,918 TPA), Ferro Alloys (170 TPA) etc. The raw materials will be transported by road in covered trucks. The power requirement after the proposed expansion would be 13 MW [Existing: 4 MW; Additional: 9 MW], which will be met from Damodar Valley Corporation.

Ambient air quality monitoring has been carried out at 8 locations during October – November 2013 and the data submitted indicated: PM_{10} (60.8 to 82.1µg/m^3), $PM_{2.5}$ (28.8 to 40.0µg/m^3), SO_2 (16.9 to 27.1µg/m^3) and NO_x (23.9 to 50.7µg/m^3). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs would be 4.2µg/m^3 and 3.9µg/m^3 with respect to PM_{10} and $PM_{2.5}$ respectively. The Submerged Arc Furnace and Induction Furnace will be equipped with bag filter arrangement with 99.9% efficiency. Dry Fogging system will be provided at raw material handling area. Good housekeeping practices will be adopted to control the fugitive emissions.

The water requirement for the project would be 22 KLD (existing – 7 KLD and additional – 15 KLD) and it will be met from bore wells. Application for permission for the drawl of 22 KLD bore well water has been submitted to State Water Investigation Directorate, West Bengal. The final approval of SWID is yet to be obtained by the PP. No industrial waste water will be generated in the plant. Domestic waste water generated from the project will be sent to the septic tank. Rainwater harvesting will be practiced within the plant premises.

Fines collected at Bag Filter from Submerged Arc Furnace & Induction Furnace (500 TPA) will be recycled in the respective process. Fe-Mn Slag (3,773 TPA) will be utilized in Si-Mn production. Si-Mn Slag (3,657 TPA) will be used in land / road / area development and manufacturing of coloured glass / insulated bricks. Induction Furnace Slag (2,112 TPA) will be utilized in road /area/land development. Fe-Si Slag (78 TPA) will be utilized in Cupola Furnace as raw material. Out of the total plant area (i.e. 4.50 acres), 33% of total plant area will be developed under green belt / plantation in a scientific manner around the plant boundary, roadside, office buildings and stretches of open land.

The Committee deliberated on the issues raised during Public Hearing/Public Consultation conducted by West Bengal Pollution Control Board on 27.02.2014 in the presence of ADM (Asansol) at Nandanik Community Hall, Rupnarayanpur, district Burdwan, West Bengal. The issues raised during public hearing are socio-economic development, employment of local people, improvement of local infrastructure, prevention of air and water

pollution, plantation in and around the project area, water sprinkling on village roads, upliftment of local people belonging to BPL category which were addressed in the final EIA-EMP report. Rs. 1.40 crores is earmarked towards the Enterprise Social Commitment based on Public Hearing issues over a period of ten years.

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

i. No Ferro Chrome shall be manufactured without prior approval from the Ministry of Environment & Forests.

ii. No charcoal shall be used as fuel. Pet coke shall be used as fuel instead of charcoal from unknown sources.

iii. Continuous monitoring facilities for the process stacks and sufficient air pollution control equipments viz. fume extraction system with bag filters, ID fan and stack of adequate height to submerged arc furnace shall be provided to control emissions below 50 mg/Nm^3.

iv. The National Ambient Air Quality Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16th November, 2009 shall be followed.

v. Secondary fugitive emissions from all the sources shall be controlled within the latest permissible limits issued by the Ministry and regularly monitored. Guidelines / Code of Practice issued by the CPCB shall be followed.

vi. Regular monitoring of influent and effluent surface, sub-surface and ground water shall be ensured and treated wastewater shall meet the norms prescribed by the State Pollution Control Board or described under the Environment (Protection) Act, 1986 whichever are more stringent. Leachate study for the effluent generated and analysis shall also be regularly carried out and report submitted to the Ministry's Regional Office at Bhubaneshwar, SPCB and CPCB.

vii. The total water requirement shall not exceed 22m^3/day. The water requirement shall be met from bore wells. The unit shall obtain ground water drawl permission from Central Ground Water Authority. 'Zero' effluent discharge shall be strictly followed and no wastewater shall be discharged outside the premises.

viii. Efforts shall be made to make use of rain water harvested. If needed, capacity of the reservoir shall be enhanced to meet the maximum water requirement. Only balance water requirement shall be met from other sources.

ix. Slag produced in Ferro Manganese (Fe-Mn) production shall be used in manufacture of Silico Manganese (Si-Mn). The Si-Mn slag and Fe-Si slag shall be used in the preparation of building materials.

x. An action plan for control of Cr and As in air and water shall be prepared and submitted to the Ministry's Regional Office at Bhubaneshwar, SPCB and CPCB within 3 months of issue of environment clearance letter.

xi. As proposed, green belt shall be developed in at least 33 % of the project area. Selection of plant species shall be as per the CPCB guidelines in consultation with the DFO. Action plan for the green belt development shall be submitted to the Ministry's Regional Office at Bhubaneshwar, within 3 months of issue of environment clearance letter.

xii. All the commitments made to the public during the Public Hearing / Public Consultation meeting held on 27.2.2014 shall be satisfactorily implemented and a separate budget for implementing the same shall be allocated and information submitted to the Ministry's Regional Office at Bhubaneshwar.

xiii. At least 5 % of the total cost of the project shall be earmarked towards the Enterprise Social Commitment based on locals need and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office at Bhubaneshwar. Implementation of such program shall be ensured accordingly in a time bound manner. The unit shall obtain panchayat clearance and copy shall be submitted to the Ministry's Regional Office at Bhubaneshwar.

xiv. Risk and Disaster Management Plan along with the mitigation measures shall be prepared and a copy submitted to the Ministry's Regional Office at Bhubaneshwar, SPCB and CPCB within 3 months of issue of environment clearance letter.

xv. The Company shall submit within three months their policy towards Corporate Environment Responsibility which shall 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. Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, Safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.

20.3.3 Proposed 2x8T Induction Furnace (Expansion) Project of **M/s BMA Stainless Ltd.** at village Debipur, P.O.Kalyaneshwari, District Burdwan, West Bengal (**EC)**

M/s BMA Stainless Limited (***herein after Project Proponent –PP***) and their EIA-EMP consultant M/s Environ India - Kolkata gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per the Terms of Reference (TORs) awarded during the 11th meeting of the Expert Appraisal Committee (Industry) held on 26-27th August, 2013 for preparation of EIA-EMP report. The ToR was awarded by MoEF vide F.No. J-11011/192/2013-IA.II(I) dated 13.11.2013 for preparation of EIA-EMP report. PP submitted the final EIA-EMP report vide letter no. nil dated 20.03.2014 after conducting Public Hearing for grant of Environmental Clearance. The proposed project activity is listed at S.No. 3(a) Secondary Metallurgical Industry under category 'B'. As the project site is located within 10 km radius of inter-State boundary (West Bengal – Jharkhand Border), due to the applicability of the general condition the project has been treated as Category 'A' of the Schedule of EIA notification 2006 and appraised by the Expert Appraisal Committee (Industry) of MoEF.

2. The salient points of the proposed project as per the final EIA-EMP report submitted by project authorities vide letter referred above in para 1 are as follows:

M/s BMA Stainless Limited has proposed to set up 2 X 8 T Induction Furnace (Expansion Project) at village Debipur, P.O. Kalyaneshwari, district Burdwan, West Bengal. The project will be set up within the existing plant premises of 17.1 acres. The existing plant got Consent To Establish was obtained from the West Bengal Pollution Control Board on 19.1.2005 (2x8 T Induction Furnace), 30.6.2005 (20 TPH Rolling Mill), 4.9.2006 (5000 TPM Steel Billets) and 22.11.2007 (Producer Gas Plant – 2700000 Nm^3/Month) respectively. The capital investment for the existing project is Rs.10.8225 crores and not covered under the purview of the EIA Notification 1994. Further, the unit has obtained CTEs for the induction furnace, rolling mill and billet manufacturing unit prior to the EIA Notification 2006 dated 14.9.2006, hence the project is not covered under the purview of EIA Notification 2006. The latitude and

longitude of the project site is 23°46'54.15"N and 86°50'4.40"E respectively. No Forest land is involved. No Defense Installation, Biosphere Reserve, National Park/Wild Life Sanctuary, Ecologically Sensitive Area is located within 10 km radius of the project site. No court case/litigation is pending against the proposed project. Total cost of the project is Rs. 5.06 crores. Rs. 50 Lakhs and Rs. 6 lakhs is earmarked for the capital cost and recurring cost per annum towards the environmental pollution control measures. Rs. 25.3 lakhs is earmarked towards the Enterprise Social Commitment based on Public Hearing issues over a period of five years.

The details of the existing and proposed product details are as given below:-

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

The existing plant got Consent to Establish was obtained from the West Bengal Pollution Control Board on 19.1.2005 (2x8 T Induction Furnace), 30.6.2005 (20 TPH Rolling Mill), 4.9.2006 (5000 TPM Steel Billets) and 22.11.2007 (Producer Gas Plant – 2700000 Nm^3/Month) respectively. WBPCB had sent the certified compliance report for the existing unit vide letter dated 6.2.2014. The Committee noted that the as per the report furnished, compliance to the consent conditions were being met.

The basic raw materials required for manufacturing M.S. Billets are Sponge Iron (48,450 TPA), Pig Iron (17,100 TPA), Ferro Alloys (360 TPA) etc. The raw materials will be transported by road in covered trucks. The power requirement after the proposed expansion would be 20 MW [Existing: 12 MW; Additional: 8 MW] which will be met from Damodar Valley Corporation.

Ambient air quality monitoring has been carried out at 8 locations during October – November 2013 and the data submitted indicated: PM_{10} (60.8 to 82.1µg/m^3), $PM_{2.5}$ (28.8 to 40.0µg/m^3), SO_2 (16.9 to 27.1µg/m^3) and NO_x (23.9 to 50.7µg/m^3). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs would be 1.7µg/m^3 and 1.5µg/m^3 with respect to PM_{10} and $PM_{2.5}$ respectively. The Induction Furnace will be equipped with bag filter arrangement with 99.9% efficiency. Good housekeeping practices will be adopted to control the fugitive emissions.
The water requirement for the project would be 52 KLD [Existing: 40 KLD; Additional:12 KLD]and it will be met from existing bore wells and rain water harvesting pond. Application for permission for the drawl of 52 KLD water has been submitted to State Water Investigation Directorate, West Bengal. The final approval of SWID is yet to be obtained by the PAs. No industrial waste water will be generated in the plant. Domestic waste water generated from the project will be sent to the septic tank. Rainwater harvesting will be practiced within the plant premises.

Fines collected at Bag Filter from Induction Furnace (200 TPA) will be recycled in the process. Induction Furnace Slag (5,662 TPA) will be utilized in road / area / land development. Out of the total plant area (i.e. 17.1 acres), 33% of total plant area will be developed under green belt / plantation in a scientific manner around the plant boundary, roadside, office buildings and stretches of open land.

The Committee deliberated on the issues raised during Public Hearing/Public Consultation conducted by West Bengal Pollution Control Board on 28.02.2014 in the presence of ADM (Development), Burdwan in the Ward Committee Office at Chalbalpur under Kulti Municipality, District: Burdwan, West Bengal. The issues raised during public hearing are local development, employment of local people, commitment regarding air pollution control, improvement of local infrastructure like road, school and health center, maintaining environmental norms and regulations, greenbelt developments which were addressed in the final EIA-EMP report. Rs. 25.3 Lakhs is earmarked towards the Enterprise Social Commitment based on Public Hearing issues over a period of five years.

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

i. Measures shall be taken to reduce PM levels in the ambient air. Continuous stack monitoring facilities for all the stacks shall be provided and sufficient air pollution control devices viz. Electrostatic precipitator (ESP), bag house, bag filters etc. shall be provided to keep the emission levels below 50 mg/Nm^3 and installing energy efficient technology.

ii. The National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16th November, 2009 shall be followed.

iii. Gaseous emission levels including secondary fugitive emissions from all the sources shall be controlled within the latest permissible limits issued by the Ministry vide G.S.R. 414(E) dated 30th May, 2008 and regularly monitored. Guidelines / Code of Practice issued by the CPCB shall be followed.

iv. Vehicular pollution due to transportation of raw material and finished product shall be controlled. Proper arrangements shall also be made to control dust emissions during loading and unloading of the raw material and finished product.

v. Total fresh water requirement from ground water source shall not exceed 52 KLD which will be met from bore wells and rain water harvesting pond. Prior permission shall be obtained from the Competent Authority for water drawl from bore well. 'Zero' effluent discharge shall be strictly followed and no wastewater shall be discharged outside the premises.

vi. Regular monitoring of influent and effluent surface, sub-surface and ground water shall be ensured and treated wastewater shall meet the norms prescribed by the State Pollution Control Board or described under the E(P) Act whichever are more stringent.

vii. Proper handling, storage, utilization and disposal of all the solid waste shall be ensured and regular report regarding toxic metal content in the waste material and its composition, end use of solid/hazardous waste shall be submitted to the Ministry's Regional Office at Bhubaneshwar, SPCB and CPCB.

viii. A time bound action plan shall be submitted to reduce solid waste, its proper utilization and disposal.

ix. Proper utilization of fly ash shall be ensured as per Fly Ash Notification, 1999 and subsequent amendment in 2003 and 2009. All the fly ash shall be provided to cement and brick manufacturers for further utilization and Memorandum of Understanding shall be submitted to the Ministry's Regional Office at Bhubaneshwar.

x. A Risk and Disaster Management Plan (including Earth quake and Seismic hazard) shall be prepared and a copy submitted to the Ministry's Regional Office at Bhubaneshwar, SPCB and CPCB within 3 months of issue of environment clearance letter.

xi. As proposed, green belt shall be developed in at least 33 % of the project area. Selection of plant species shall be as per the CPCB guidelines in consultation with the DFO.

xii. All the commitments made to the public during Public Hearing/public consultation meeting held on 28.2.2014 shall be satisfactorily implemented and adequate budget provision shall be made accordingly.

xiii. At least 5 % of the total cost of the project shall be earmarked towards the Enterprise Social Commitment based on earlier Public Hearing Issues, locals need and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office at Bhubaneshwar. Implementation of such program shall be ensured by constituting a Committee comprising of the proponent, representatives of village Panchayat and District Administration. Action taken report in this regard shall be submitted to the Ministry's Regional Office at Bhubaneshwar.

xiv. The Company shall submit within three months their policy towards Corporate Environment Responsibility which shall 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.

xv. Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, Safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.

20.3.4 Expansion of existing plant (120 TPA High Tension Insulator, 50 TPA Low Tension Insulator, 588 TPA Sponge Iron) with proposed 0.1 MTPA Integrated Steel Plant through Tunnel Kiln of **M/s Mayur Electro Ceramics Pvt. Ltd.** at Jaypur, PO Pratapgarh, Tehsil Kusumi, District Mayurbhanj in Orissa **(EC)**

The Committee deferred the consideration of the above proposal on the ground that most of the members of the EAC have not received the requisite documents concerned with the project. The Committee recommended that proposal may be placed before the EAC in its next meeting for consideration.

20.3.5 Proposed 1x200 TPD Sinter Plant (Expansion Project) of **M/s Maithan Alloys Limited** at Mouza: Debipur & Maheshpur, Dendua Road, Dist. Burdwan, West Bengal (**EC)**

M/s Maithan Alloys Limited (***herein after Project Proponent –PP***) and their EIA-EMP consultant M/s Environ India - Kolkata gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per the Terms of Reference (ToRs) awarded during the 11th meeting of the Expert Appraisal Committee (Industry) held on 26-27th August, 2013 for preparation of EIA-EMP report. The TOR was awarded by MoEF vide F.No. J-11011/191/2013-IA.II(I) dated 22.11.2013 for preparation of EIA-EMP report. The PP submitted the final EIA-EMP report vide letter no. nil dated 20.03.2014 after conducting Public Hearing for grant of Environmental Clearance. The proposed project activity is listed at S.No. 3(a) Primary Metallurgical Industry under Category 'A' of the Schedule of EIA notification 2006 and appraised by the Expert Appraisal Committee (Industry) of MoEF. Further, the project site is located within 10 km radius of inter-State boundary (West Bengal – Jharkhand Border).

2. The salient points of the proposed project as per the final EIA-EMP report submitted by project authorities vide letter referred above in para 1 are as follows:

M/s Maithan Alloys Limited have proposed to set up 1 X 200 TPD Sinter Plant (Expansion Project) at Mouza Debipur & Maheshpur, Dendua Road, district Burdwan, West Bengal. The project will be set up within the existing plant premises of 23.87 acres. The existing plant got Consent To Establish was obtained from the West Bengal

Pollution Control Board on 5.12.1995 (2x5 MVA Ferro Alloy Plant), 10.5.2005 (2 x12 MVA Ferro Alloy Plant) and 28.3.2003 (1x8.25 MVA Ferro Alloy Plant) respectively. The capital investment for the existing project is Rs.39.34 crores and not covered under the purview of the EIA Notification 1994. Further, the unit has obtained CTEs for the ferro alloy plant prior to the EIA Notification 2006 dated 14.9.2006, hence the project is not covered under the purview of EIA Notification 2006. The latitude and longitude of the project site is 23°46'43.44"N and 86°50'32.11"E respectively. No Forest land is involved. No Defense Installation, Biosphere Reserve, National Park/Wild Life Sanctuary, ecologically sensitive area is located within 10 km radius of the project site. No court case/litigation is pending against the proposed project. Total cost of the project is Rs. 5.17 crores. Rs. 40 lakhs and Rs. 155.0 lakhs is earmarked for the capital cost and recurring cost per annum towards the environmental pollution control measures. An amount of Rs. 26 lakhs is earmarked towards the Enterprise Social Commitment based on Public Hearing issues over a period of five years.

The capacity of proposed project activity has been tabulated below:

	Plant	**Existing**		**Additional**
Main Plant	Ferro Alloys Plant	2 X 5 MVA, 1 X 6.5 MVA, 1 X 8.25 MVA & 2 X 12 MVA		-
	Sinter Plant	-		200 TPD
	Mn Ore Slag Crusher	2,500 T / month		-
	Briquetting of Mn Ore Fines	2000 T / month		-
Product	**Product**	**Existing**	**Additional**	**Total**
	Ferro Alloys	92,600 TPA	-	92,600 TPA
	Manganese Ore Sinter	-	70,000 TPA	70,000 TPA

The existing plant got Consent To Establish was obtained from the West Bengal Pollution Control Board on 5.12.1995 (2x5 MVA Ferro Alloy Plant), 10.5.2005 (2 x12 MVA Ferro Alloy Plant) and 28.3.2003 (1x8.25 MVA Ferro Alloy Plant) respectively. WBPCB had sent the certified compliance report for the existing unit vide letter dated 13.3.2014. The Committee noted that the as per the report furnished, compliance to the consent conditions were being met.

The basic raw materials required for manufacturing Manganese Ore Sinter are Manganese Ore (75,950 TPA) and Coke / Coal Fines (5,600 TPA). The raw materials will be transported by road in covered trucks. The power requirement after the proposed expansion would be 38.6 MW [Existing: 38 MW; Additional: 0.6 MW]which will be met from Damodar Valley Corporation.

Ambient air quality monitoring has been carried out at 8 locations during October – November 2013 and the data submitted indicated: PM_{10} (60.8 to 82.1µg/m^3), $PM_{2.5}$ (28.8 to 40.0µg/m^3), SO_2 (16.9 to 27.1µg/m^3) and NO_x (23.9 to 50.7µg/m^3). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed expansion would be 16.7µg/m^3 and 13.5 µg/m^3 with respect to PM_{10} and $PM_{2.5}$ respectively. The Sinter Plant will be equipped with Multi-cyclone arrangement with 99.9% efficiency. Dry fogging system will be provided to control fugitive emissions in the raw material handling area. Good housekeeping practices will be adopted to control the fugitive emissions.

The water requirement for the project would be 205 KLD [Existing: 159 KLD; Additional:46 KLD]and it will be met from Damodar Valley Corporation / PHE / Rainwater Harvesting. Permission for the drawl of 205 KLD water has already been obtained from Damodar Valley Corporation. No industrial waste water will be generated in the plant.

Domestic waste water generated from the project will be sent to the septic tank. Rainwater harvesting will be practiced within the plant premises.

Dust collected at Cyclone and the undersize generated due to crushing of Sinter Cakes (5 TPD) will be reused in the process. Out of the total plant area (i.e. 23.87 acres), 33% of total plant area will be developed under green belt / plantation in a scientific manner around the plant boundary, roadside, office buildings and stretches of open land.

The Committee deliberated on the issues raised during Public Hearing/Public Consultation conducted by West Bengal Pollution Control Board on 27.02.2014 in the presence of ADM (Asansol), at "Nandanik Community Hall", Rupnarayanpur, district Burdwan, West Bengal. The issues raised during public hearing are local socio-economic development, employment of local people, improvement of local infrastructure, prevention of air and water pollution in the surrounding locality, air pollution from existing industries and adequate prevention methods, plantation in and around the project area which were addressed in the final EIA-EMP report. Rs. 26 lakhs is earmarked towards the Enterprise Social Commitment based on Public Hearing issues over a period of five years.

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

i. Measures shall be taken to reduce PM levels in the ambient air. Continuous stack monitoring facilities for all the stacks shall be provided and sufficient air pollution control devices viz. Electrostatic precipitator (ESP), bag house, bag filters etc. shall be provided to keep the emission levels below 50 mg/Nm^3 and installing energy efficient technology.

ii. The National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16th November, 2009 shall be followed.

iii. Gaseous emission levels including secondary fugitive emissions from all the sources shall be controlled within the latest permissible limits issued by the Ministry vide G.S.R. 414(E) dated 30th May, 2008 and regularly monitored. Guidelines / Code of Practice issued by the CPCB shall be followed.

iv. Vehicular pollution due to transportation of raw material and finished product shall be controlled. Proper arrangements shall also be made to control dust emissions during loading and unloading of the raw material and finished product.

v. Total fresh water requirement after the proposed expansion shall not exceed 205 KLD [Existing: 159 KLD; Additional:46 KLD]and it will be met from Damodar Valley Corporation / PHE / Rainwater Harvesting. Prior permission shall be obtained from the Competent Authority for water drawl. 'Zero' effluent discharge shall be strictly followed and no wastewater shall be discharged outside the premises.

vi. Regular monitoring of influent and effluent surface, sub-surface and ground water shall be ensured and treated wastewater shall meet the norms prescribed by the State Pollution Control Board or described under the E(P) Act whichever are more stringent.

vii. Proper handling, storage, utilization and disposal of all the solid waste shall be ensured and regular report regarding toxic metal content in the waste material and its composition, end use of solid/hazardous waste shall be submitted to the Ministry's Regional Office at Bhubaneshwar, SPCB and CPCB.

viii. A time bound action plan shall be submitted to reduce solid waste, its proper utilization and disposal.

ix. A Risk and Disaster Management Plan (including Earth quake and Seismic hazard) shall be prepared and a copy submitted to the Ministry's Regional Office at Bhubaneshwar, SPCB and CPCB within 3 months of issue of environment clearance letter.

x. As proposed, green belt shall be developed in at least 33 % of the project area. Selection of plant species shall be as per the CPCB guidelines in consultation with the DFO.

xi. All the commitments made to the public during Public Hearing/public consultation meeting held on 27.2.2014 shall be satisfactorily implemented and adequate budget provision shall be made accordingly.

xii. At least 5 % of the total cost of the project shall be earmarked towards the Enterprise Social Commitment based on earlier Public Hearing Issues, locals need and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office at Bhubaneshwar. Implementation of such program shall be ensured by constituting a Committee comprising of the proponent, representatives of village Panchayat and District Administration. Action taken report in this regard shall be submitted to the Ministry's Regional Office at Bhubaneshwar.

xiii. The Company shall submit within three months their policy towards Corporate Environment Responsibility which shall 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.

xiv. Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, Safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.

20.3.6 Expansion of Sponge Iron Plant to Steel Plant (0.1 MTPA) and Captive Power Plant (16MW) of **M/s Chintpurni Steel Pvt. Limited** at village Indra & Jarba, Mandu, District Hazaribagh, Jharkhand (EC)

The Committee deferred the consideration of the above proposal on the ground that most of the members of the EAC have not received the requisite documents concerned with the project. The Committee recommended that proposal may be placed before the EAC in its next meeting for consideration.

20.4 Further consideration Cases

20.4.1 Expansion of Integrated Steel Plant (0.20 MTPA to 0.60 MTPA) of **M/s Rungta Mines Limited** at village Komando, Tehsil Bonai, District Sundergarh, Orissa **(EC)**

The aforesaid proposal was considered by the Expert Appraisal Committee (EAC) in its 14th meeting held during 19-20th December 2013 for the grant of Environment Clearance. As per the minutes of the meeting, the Committee sought following additional information from the proponent for reconsideration:

i. Gram Sabha approval for the acquisition of 381.74 acres of land;
ii. State of land award letter passed by the District Collector including involvement of SC/ST land;
iii. Socio-economic survey of the study area;
iv. R&R action plan;
v. Risk and Disaster management plan;
vi. Occupational health and safety management plan including medical reports of the existing workers;
vii. Status of Environment Clearance for the Iron ore mines and Coal mines;
viii. At least 5 % of the total cost of the project should be earmarked towards the Enterprise Social Commitment (ESC) based on local needs and action plan with financial and physical breakup/details should be prepared over a period of five years and shall be submitted; and
ix. Point wise compliance of the following findings as reported by the RO- Bhubaneshwar along with the fresh site inspection report of RO- Bhubaneshwar

a) Monitoring of fugitive dust in the work area is not being done;
b) Project has not initiated to provide online Ambient Air Quality monitoring stations;
c) There is no water balance of the plant to find out consumption of water per unit generation of Sponge Iron. The project should take up water audit of the plant immediately;
d) There is no ETP to treat plant effluent. A low lying area is used to collect all the plant effluents and is located near the Char Dump yard;
e) Monitoring of groundwater is not being carried out;
f) Agreement with all cement/brick manufactures to use fly ash in a long term basis;
g) Studies any reduction of consumption of surface water and maximize use of collected rainwater including recycle of plant effluent for different purposes; and
h) Monitoring of noise level in the ambient has not been done.

2. PP vide letter No.RML/KSP-366/05/14-15 dated 9.4.2014 furnished the aforesaid additional information to the Ministry. The proposal was placed before the EAC for reconsideration. PP and their EIA consultant – M/s CTRAN Consulting Limited, Bhubaneshwar made a presentation before the Committee.

3. The Committee noted that total plant area comprises of 381.70 acres. Out of the 381.70 acres, 149.37 acres land has been directly purchased for which Gram Sabha approval was not required. 45.99 acres is government land for which Gram Sabha approval was not required. 186.34 acres of land is being acquired through Odisha's Industrial Infrastructure Development Corporation (IDCO) for which Gram sabha meeting was held on 13.02.2009. In the Gram Sabha, majority of the villagers have expressed their willingness for land acquisition. Out of the total land of 381.70 acres, the involvement of SC and ST land is 11.740 acres and 125.8 acres respectively. The compensation to the land losers has already been paid through IDCO as per the R&R Policy of Orissa State. Iron ore will be sourced from M/s Jajang iron ore mine for which EC has been accorded vide letter no.J-11015/136/2005-IA.II(M) dated 14.6.2005. With respect to coal linkage, it was submitted by the PP that Ministry of Coal, Govt. of India has allocated Radhikapur (W) Coal Block vide Ministry's allocation letters no. 13016/33/2005-CA-I dt. 25.04.2006 and 13016/77/2006-CA-I dated 21st December 2009, in Angul District of Orissa – jointly to M/s Rungta Mines Ltd, M/s OCL India Ltd and M/s Ocean Ispat Pvt. Ltd. The project has been recommended for grant of EC by the EAC in its meeting held during 3-4 June 2013. Environmental Clearance letter is awaited. Rs. 62.5 crores is earmarked towards the ESC related activities based on local needs over a period of five years. Regional Office of MOEF at Bhubaneshwar had sent the status of compliance to the non-compliance of the EC conditions as referred at point no ix) of para 1 vide letter dated 3.3.2014. The Committee noted that the as per the report furnished and compliance status presented by the PP, compliance to the EC conditions were being met.

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

i. On-line ambient air quality monitoring and continuous stack monitoring facilities for all the stacks shall be provided and sufficient air pollution control devices viz. Electrostatic precipitator (ESP), and bag filters etc. shall be provided to keep the emission levels below 50 mg/Nm^3 by installing energy efficient technology.
ii. The National Ambient Air Quality Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16th November, 2009 shall be followed.
iii. In-plant control measures like bag filters, de-dusting and dust suppression system shall be provided to control fugitive emissions from all the vulnerable sources. Dust extraction and suppression system shall be provided at all the transfer points, coal handling plant and coke sorting plant of coke oven plant. Bag filters shall be provided to hoods and dust collectors to coal and coke handling to control dust emissions. Water sprinkling system shall be provided to control secondary fugitive dust emissions generated during screening, loading, unloading, handling and storage of raw materials etc.
iv. Gaseous emission levels including secondary fugitive emissions from all the sources shall be controlled within the latest permissible limits issued by the Ministry vide G.S.R. 414(E) dated 30th May, 2008 and regularly monitored. Guidelines / Code of Practice issued by the CPCB shall be followed.

v. Multi stage scrubber, cyclone and bag filters etc. to control particulate emissions within the prescribed limits from coke oven shall be provided. Carbon mono-oxide (CO) shall also be monitored along with other parameters and standards notified under Environment (Protection) Act shall be followed. The reports shall be submitted to the Ministry's Regional Office at the Bhubaneshwar, CPCB and SPCB.

vi. Hot gases from the DRI kiln shall be passed through Dust Settling Chamber (DSC) to remove coarse solids and After Burning Chamber (ABC) to burn CO completely and used in Waste Heat Recovery Boiler (WHRB). The gas then shall be cleaned in ESP before dispersion out into the atmosphere through ID fan and stack. ESP shall be installed to control the particulate emissions from the WHRB.

vii. Total make up water requirement after the proposed expansion shall not exceed 1493 m^3/ hr. The water consumption shall not exceed as per the standard prescribed for the sponge iron plants and steel plants.

viii. Efforts shall further be made to use maximum water from the rain water harvesting sources. If needed, capacity of the reservoir shall be enhanced to meet the maximum water requirement. Only balance water requirement shall be met from other sources. Use of air cooled condensers shall be explored and closed circuit cooling system shall be provided to reduce water consumption and water requirement shall be modified accordingly.

ix. All the effluent shall be treated and used for dust suppression and green belt development. No effluent shall be discharged and 'zero' discharge shall be adopted. Domestic wastewater will be treated in the Sewage Treatment Plant.

x. Regular monitoring of influent and effluent surface, sub-surface and ground water shall be ensured and treated wastewater shall meet the norms prescribed by the State Pollution Control Board or described under the E(P) Act whichever are more stringent. Leachate study for the effluent generated and analysis shall also be regularly carried out and report submitted to the Ministry's Regional Office at Bhubaneshwar, SPCB and CPCB.

xi. In case source of coal supply is to be changed at a later stage (now proposed coal from Radhikapur (W) coal block, Odisha) the project proponent shall intimate the Ministry well in advance along with necessary requisite documents for its concurrence for allowing the change.

xii. Risk and Disaster Management Plan along with the mitigation measures shall be prepared and a copy submitted to the Ministry's Regional Office at Bhubaneshwar, SPCB and CPCB within 3 months of issue of environment clearance letter.

xiii. All the blast furnace (BF) slag shall be granulated and provided to cement manufacturers for further utilization. Flue dust from pellet plant, sinter plant, DRI and SMS and sludge from BF shall be re-used in sinter plant. Coke breeze from coke oven plant shall be used in sinter and pellet plant. SMS slag shall be given for metal recovery or properly utilized. All the other solid waste including broken refractory mass shall be properly disposed off in environment-friendly manner.

xiv. A time bound action plan shall be submitted to reduce solid waste, its proper utilization and disposal.

xv. Coal and coke fines shall be recycled and reused in the process. The breeze coke and dust from the air pollution control system shall be reused in sinter plant. The sinter dust shall be recycled in the sinter plant. The waste oil shall be properly disposed of as per the Hazardous Waste (Management, Handling, Handling and Transboundary Movement) Rules, 2008.

xvi. As proposed, green belt shall be developed in 33 % of plant area. Selection of plant species shall be as per the CPCB guidelines in consultation with the DFO.

xvii. All the recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for the Steel Plants and Coke Oven Plants shall be implemented.

xviii. At least 5 % of the total cost of the project shall be earmarked towards the Enterprise Social Commitment (ESC) based on locals need and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office at Bhubaneshwar. Implementation of such program shall be ensured accordingly in a time bound manner.

xix. The Company shall submit within three months their policy towards Corporate Environment Responsibility which shall 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.

xx. All the commitments made to the public during the Public Hearing / Public Consultation meeting held on 16.11.2012 shall be satisfactorily implemented and a separate budget for implementing the same shall be allocated and information submitted to the Ministry's Regional Office at Bhubaneshwar.

xxi. Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, Safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.

The Committee desired that a table of both coal and iron linkages vis-à-vis coal and iron ore availability form its exiting mines and that procured from other sources for all projects of M/s Runga Mines Ltd. should be submitted for record of Ministry.

20.4.2 Proposed Iron ore Beneficiation Plant (1.2 MTPA) and Pellet Plant (1.2 MTPA) of **M/s KNK Corp Private Limited** at Village Kotegal, Tehsil Badami, District Bagalkot, Karnataka (EC)

The aforesaid proposal was considered by the Expert Appraisal Committee (EAC) in its 14th meeting held during 19-20th December 2013 for the grant of Environment Clearance. As per the minutes of the meeting, the Committee deferred the proposal and sought the following information for reconsideration:-

i. Resolution passed by the Gram Panchayat – Kotikal supporting the establishment of Iron ore Beneficiation Plant (1.2 MTPA) and Pellet Plant (1.2 MTPA) at Village Kotegal, Tehsil Badami, District Bagalkot, Karnataka; and

ii. Undertaking from M/s KNK Corp Pvt. Limited that they will be complying the fugitive emission standards of MoEF

2. PP vide letter dated 25.4.2014 furnished the aforesaid additional information to the Ministry. The proposal was placed before the EAC for reconsideration. PP and their EIA consultant – M/s Metamorphosis - Bengaluru made a presentation before the Committee.

3. The Committee noted that the proponent has submitted the resolution passed by the taluk Panchayat supporting the establishment of the industry of M/s KNK Corp Private Limited. Further, proponent also submitted the undertaking to comply with the fugitive emission standards of the MoEF.

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

i. Measures shall be taken to reduce PM levels in the ambient air. Continuous stack monitoring facilities for all the stacks shall be provided and sufficient air pollution control devices viz. Electrostatic precipitator (ESP), bag house, bag filters etc. shall be provided to keep the emission levels below 50 mg/Nm^3 and installing energy efficient technology.

ii. The National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16th November, 2009 shall be followed.

iii. Gaseous emission levels including secondary fugitive emissions from all the sources shall be controlled within the latest permissible limits issued by the Ministry vide G.S.R. 414(E) dated 30th May, 2008 and regularly monitored. Guidelines / Code of Practice issued by the CPCB shall be followed.

iv. Vehicular pollution due to transportation of raw material and finished product shall be controlled. Proper arrangements shall also be made to control dust emissions during loading and unloading of the raw material and finished product.

v. Total fresh water requirement shall not exceed 3600 KLPD which will be met from River Krishna. Prior permission shall be obtained from the Competent Authority for water drawl from river Krishna. 'Zero' effluent discharge shall be strictly followed and no wastewater shall be discharged outside the premises.

vi. Regular monitoring of influent and effluent surface, sub-surface and ground water shall be ensured and treated wastewater shall meet the norms prescribed by the State Pollution Control Board or described under the E(P) Act whichever are more stringent.

vii. Proper handling, storage, utilization and disposal of all the solid waste shall be ensured and regular report regarding toxic metal content in the waste material and its composition, end use of solid/hazardous waste shall be submitted to the Ministry's Regional Office at Bangalore, SPCB and CPCB.

viii. A time bound action plan shall be submitted to reduce solid waste, its proper utilization and disposal.

ix. A Risk and Disaster Management Plan shall be prepared and a copy submitted to the Ministry's Regional Office at Bangalore, SPCB and CPCB within 3 months of issue of environment clearance letter.

x. As proposed, green belt shall be developed in at least 33 % of the project area. Selection of plant species shall be as per the CPCB guidelines in consultation with the DFO.

xi. All the commitments made to the public during Public Hearing/public consultation meeting held on 05.08.2013 shall be satisfactorily implemented and adequate budget provision shall be made accordingly.

xii. At least 5 % of the total cost of the project shall be earmarked towards the Enterprise Social Commitment based on earlier Public Hearing Issues, locals need and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office at Bangalore. Implementation of such program shall be ensured by constituting a Committee comprising of the proponent, representatives of village Panchayat and District Administration. Action taken report in this regard shall be submitted to the Ministry's Regional Office at Bangalore.

xiii. The Company shall submit within three months their policy towards Corporate Environment Responsibility which shall 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.

xiv. Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, Safe drinking water,

medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.

20.4.3 Expansion in Clinker Production from 2.78 MTPA to 3.043 MTPA of **M/s My Home Industries Limited** at Village and Mandal Mellacheruvu, District Nalgonda in Andhra Pradesh (EC)

The aforesaid proposal was considered by the Expert Appraisal Committee (EAC) in its 15th meeting held during 29-30th January, 2014 for the grant of Environment Clearance. As per the minutes of the meeting, the Committee sought following additional information from the proponent for reconsideration:-

i. Copy of the EC for corresponding limestone mine EC expansion from 3.96 to 4.43 MTPA.
ii. Permission for withdrawal of ground water of 1500 m^3/day;
iii. Report regarding decrease in crop productivity in the surrounding villages due to the cement plant operations; and
iv. Details of CSR plan to be internally considered.
v. At least 5 % of the total cost of the project shall be earmarked towards the Enterprise Social Commitment (ESC) based on local needs and village wise action plan with financial and physical breakup/details shall be prepared in consultation with village panchayats and the same shall be submitted.

2. PP vide letter no. MHIL/MOEF/U-II/R/2014/002 dated 14.5.2014 furnished the aforesaid additional information to the Ministry. The proposal was placed before the EAC for reconsideration. PP and their EIA consultant – M/s B.S.Envi-Tech Private Limited made a presentation before the Committee.

3. The Committee noted that the proponent has submitted the EC obtained from MoEF for the limestone mines of 4.43 MTPA capacity [J.11015/8/2000 – 1A.II(M) dated 15/04/2002; J.11015/35/2001 – 1A.II(M) dated 12/03/2004; J.11015/37/2002 – 1A.II(M) dated 12/03/2004; J.11015/25/2006 – 1A.II(M) dated 26/05/2006 and J.11015/576/2007 – 1A.II(M) dated 31/07/2008]. Permission for the withdrawal of 1500 KLD ground water has been obtained by the PP from the groundwater department, Govt. of Andhra Pradesh on 3.12.1998. Rs. 250 lakhs is earmarked towards the ESC related activities based on local needs over a period of 5 years. The PP has also obtained from Tehsildar that no complaints have been received on changes to crop pattern due tot eh cemnt plant operations.

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

i. Continuous stack monitoring facilities to monitor gaseous emissions from the process stacks shall be provided. After expansion, limit of PM shall be controlled within 50 mg/Nm^3 by installing adequate air pollution control system. Electrostatic precipitators to clinker cooler, bag house to raw mill/kiln and bag filters to coal mill and cement mill. Low NO_X burners should be provided to control NO_X emissions. Regular calibration of the instruments must be ensured.

ii. Possibilities shall be explored for the proper and full utilization of gases generated from the kiln in waste heat recovery boiler (WHRB) and a feasibility report shall be prepared and submitted to the Ministry and its Regional Office at Bangalore within 3 months from the date of issue of the letter.

iii. The National Ambient Air Quality Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16th November, 2009 shall be followed.

iv. Secondary fugitive emissions shall be controlled and shall be within the prescribed limits and regularly monitored. Guidelines / Code of Practice issued by the CPCB in this regard should be followed.

v. Efforts shall be made to reduce impact of the transport of the raw materials and end products on the surrounding environment including agricultural land. All the raw materials including fly ash should be transported in the closed containers only and shall not be overloaded. The company shall have separate truck parking area. Vehicular emissions should be regularly monitored.

vi. Total fresh water requirement after the proposed expansion of the cement and captive power plant shall not exceed 1260 m^3/day which will be sourced from the borewells. A five year water management plan should be made so as to achieve reduction in ground water withdrawal.

vii. Efforts shall be made to further reduce water consumption by using air cooled condensers. All the treated wastewater shall be recycled and reused in the process and/or for dust suppression and green belt development and other plant related activities etc. No process wastewater shall be discharged outside the factory premises and 'zero' discharge should be adopted.

viii. Efforts shall be made to make use of rain water harvested. If needed, capacity of the reservoir should be enhanced to meet the maximum water requirement. Only balance water requirement shall be met from other sources.

ix. Regular monitoring of influent and effluent surface, sub-surface and ground water should be ensured and treated wastewater should meet the norms prescribed by the State Pollution Control Board or described under the Environment (Protection) Act, 1986 whichever are more stringent. Leachate study for the effluent generated and analysis should also be regularly carried out and report submitted to the Ministry's Regional Office at Bangalore, SPCB and CPCB.

x. All the bag filter dust, raw mill dust, coal dust, clinker dust and cement dust from pollution control devices should be recycled and reused in the process and used for cement manufacturing. Spent oil and batteries shall be sold to authorized recyclers / reprocessors only.

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. All the commitments made to the public during the Public Hearing / Public Consultation meeting held on 30.4.2013 shall be satisfactorily implemented and a separate budget for implementing the same shall be allocated and information submitted to the Ministry's Regional Office at Bangalore.

xiii. At least 5 % of the total cost of the project should be earmarked towards the Enterprise Social Commitment (ESC) based on local needs and action plan with financial and physical breakup/details should be prepared and submitted to the Ministry's Regional Office at Bangalore. Implementation of such program should be ensured accordingly in a time bound manner

xiv. Risk and Disaster Management Plan along with the mitigation measures should be prepared and a copy submitted to the Ministry's Regional Office at Bangalore, SPCB and CPCB within 3 months of issue of environment clearance letter.

xv. Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, Safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.

20.4.4 Leather Finishing Unit of **M/s Supreme Fashions** at 524 D & E, HSIDC Industrial Estate, Barhi, Phase- II, District Sonipat, Haryana (EC)

The aforesaid proposal was considered by the Expert Appraisal Committee (EAC) in its 2nd meeting held during 29-31st October 2012 for the grant of Environment Clearance. As per the minutes of the meeting, the Committee recommended the project for environmental clearance. However, the proposal shall be placed before the Committee after having clarity on exemption of Public Hearing/Public Consultation. Further, the Committee decided that MoEF shall write to Director (Industries) of the State Govt. for clarification regarding Notified Industrial Area. Accordingly, Ministry vide letters dated 22.1.2013 and 3.5.2013 sought for the clarification regarding Notified Industrial Area from Director, Department of Industries & Commerce, Government of Haryana. In response to this, Director of Industries & Commerce, Haryana vide letter dated 31.7.2013 informed the Ministry that said unit has been set up at plot no.524 D&E, HSIIDC Industrial Estate which has been notified by the Industries department on 4.11.2003. The matter was examined in the Ministry and MoEF vide letter dated 20.3.2014 informed M/s Supreme Fashions to approach the M/s Haryana State Pollution Control Board to conduct the Public Hearing for the proposal cited above in accordance with the procedure prescribed in the EIA Notification, 2006 because the exemption of public consultation under para7(i) III. Stage (3)(i)(b) is only available to the projects or activities located within the industrial estates or parks which have obtained prior EC under EIA Notification 2006 as provided under item 7(c) of the schedule.

2. In response to this, PP vide letter dated 22.5.2014 informed the Ministry that the industrial estate, phase II of HSIIDC at Barhi has obtained environmental clearance from SEIAA –Haryana vide letter no. SEIAA/HR/2012/269 dated 30.8.2012. Further, PP requested MoEF to exempt the project from Public Consultation and grant Environmental Clearance.

3. As recommended by EAC in its meeting held on 29-31st October 2012, the proposal was placed before the EAC for consideration. PP made a presentation before the Committee. The Committee noted that the industrial estate, phase II of HSIIDC at Barhi has obtained environmental clearance from SEIAA –Haryana vide letter no. SEIAA/HR/2012/269 dated 30.8.2012.

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

i. The National Ambient Air Quality Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16th November, 2009 shall be followed.

ii. Gaseous emission levels including secondary fugitive emissions from all the sources shall be controlled within the latest permissible limits issued by the Ministry vide G.S.R. 414(E) dated 30th May, 2008 and regularly monitored. Guidelines / Code of Practice issued by the CPCB should be followed.

iii. The total water requirement shall not exceed 25 KLD and permission for water drawl shall be obtained from the Competent Authority. All the wastewater generated shall be properly treated in ETP and after meeting the norms shall be sent to CETP for further treatment. The treated wastewater should be colour free.

iv. Efforts shall be made to make use of rain water harvested. If needed, capacity of the reservoir should be enhanced to meet the maximum water requirement. Only balance water requirement should be met from other sources.

v. The Company shall provide stacks of adequate height to the D.G. Sets along with acoustic enclosures for noise control as per CPCB guidelines. The DG Sets should comply with the norms notified under Environment (Protection) Act, 1986.

vi. As proposed, green belt of adequate width shall be developed in 33 % of the plant area. Selection of plant species should be as per the CPCB guidelines in consultation with the DFO.

vii. At least 5 % of the total cost of the project should be earmarked towards the Enterprise Social Commitment (ESC) based on local needs and action plan with financial and physical breakup/details should be prepared and submitted to the Ministry's Regional Office at Chandigarh. Implementation of such program should be ensured accordingly in a time bound manner.

viii. Risk and Disaster Management Plan along with the mitigation measures should be prepared and a copy submitted to the Ministry's Regional Office at Chandigarh, SPCB and CPCB within 3 months of issue of environment clearance letter.

ix. The Company shall submit within three months their policy towards Corporate Environment Responsibility which shall 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.

20.4.5 Proposed Integrated Steel Plant (Beneficiation Plant 1.40 MTPA, Pellet Plant (1.2 MTPA), DRI Kilns (4x350 TPD = 4,35,000TPA), Ladle Furnace (1x30TPD= 4,35,000TPA), 1 CCM Machine for Manufacturing 4,22,400 TPA Billets, 2 (25T each) of Rolling Mill (2,90,000 TPA) along with 70MW CPP of **M/s Pacific Iron Manufacturing Ltd.** at village Parakheda, Tehsil Sihora, Dist. Jabalpur, M.P. **(EC)**

The aforesaid proposal was considered by the Expert Appraisal Committee (EAC) in its 9th meeting held during 10-11th June, 2013 and further reconsidered in its 12th meeting held during 30th September 2013 to 1st October 2013 for the grant of Environment Clearance. As per the minutes of the meeting, the Committee sought following additional information from the proponent for reconsideration:-

i. Detailed Resettlement and Rehabilitation(R&R) action plan;
ii. Permission from the Competent Authority for the acquisition of the tribal land;
iii. Permission from Central Ground Water Authority (CGWA) for the water drawl of 387 m^3/hr from bore wells;
iv. Time bound action plan for five years towards the Enterprise Social Commitment based on Public Hearing issues and item-wise details along with budgetary provision shall be submitted;
v. Occupational Health and Safety Management Plan along with budgetary provision shall be submitted and;
vi. Action plan for the storage and disposal of SMS slag.

2. The proponent vide letter dated 17.2.2014 furnished the aforesaid additional information to the Ministry. The proposal was placed before the EAC for reconsideration. PP and their EIA consultant – M/s EnviroTech East Private Limited - Kolkatta made a presentation before the Committee.

3. The Committee noted that an amount of Rs.25.272 crores is earmarked towards the Resettlement & Rehabilitation related activities. Out of the total land of 125 acres, around 38.9 acres of land belonging to two persons of Tribal origin which have been acquired after the necessary permission from the Competent Authority. The water requirement is 387 m^3/hr which will be met from mine discharge (360 m^3/hr) and the remaining quantity of water will be met from the groundwater. Rs.76.20 crores is earmarked towards the Enterprise Social Commitment (ESC) related activities based on local needs over a period of five years. Action plan for the ESC related activities have been submitted. The committee noted that other additional information submitted by the PP is satisfactory.

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

i. Rehabilitation and Resettlement (R&R) Plan shall be prepared and submitted to the State Government of Madhya Pradesh. This shall be implemented as per the R & R Policy of the State Government of Madhya Pradesh. All the recommendations mentioned in the R & R Plan shall be strictly followed including suitable employment and other facilities to all the oustees. Compensation paid in any case shall not be less than the norms prescribed under National Resettlement and Rehabilitation Policy, 2007.

ii. On-line ambient air quality monitoring and continuous stack monitoring facilities for all the stacks shall be provided and sufficient air pollution control devices viz. Electrostatic precipitator (ESP), and bag filters etc. shall be provided to keep the emission levels below 50 mg/Nm^3 by installing energy efficient technology.

iii. The National Ambient Air Quality Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16th November, 2009 shall be followed.

iv. In-plant control measures like bag filters, de-dusting and dust suppression system shall be provided to control fugitive emissions from all the vulnerable sources. Water sprinkling system shall be provided to control secondary fugitive dust emissions generated during screening, loading, unloading, handling and storage of raw materials etc.

v. Gaseous emission levels including secondary fugitive emissions from all the sources shall be controlled within the latest permissible limits issued by the Ministry vide G.S.R. 414(E) dated 30th May, 2008 and regularly monitored. Guidelines / Code of Practice issued by the CPCB shall be followed.

vi. Hot gases from the DRI kiln shall be passed through Dust Settling Chamber (DSC) to remove coarse solids and After Burning Chamber (ABC) to burn CO completely and used in Waste Heat Recovery Boiler (WHRB). The gas then shall be cleaned in ESP before dispersion out into the atmosphere through ID fan and stack. ESP shall be installed to control the particulate emissions from the WHRB.

vii. Total make up water requirement shall not exceed 387 m^3/ hr. The water consumption shall not exceed as per the standard prescribed for the sponge iron plants and steel plants.

viii. Efforts shall further be made to use maximum water from the rain water harvesting sources. If needed, capacity of the reservoir shall be enhanced to meet the maximum water requirement. Only balance water requirement shall be met from other sources. Use of air cooled condensers shall be explored and closed circuit cooling system shall be provided to reduce water consumption and water requirement shall be modified accordingly.

ix. All the effluent shall be treated and used for dust suppression and green belt development. No effluent shall be discharged and 'zero' discharge shall be adopted. Domestic wastewater will be treated in the Sewage Treatment Plant.

x. Regular monitoring of influent and effluent surface, sub-surface and ground water shall be ensured and treated wastewater shall meet the norms prescribed by the State Pollution Control Board or described under the E(P) Act whichever are more stringent. Leachate study for the effluent generated and analysis shall also be regularly carried out and report submitted to the Ministry's Regional Office at Bhopal, SPCB and CPCB.

xi. Proper handling, storage, utilization and disposal of all the solid waste shall be ensured and regular report regarding toxic metal content in the waste material and its composition, end use of solid/hazardous waste shall be submitted to the Ministry's Regional Office at Bhopal, SPCB and CPCB.

xii. A time bound action plan shall be submitted to reduce solid waste, its proper utilization and disposal.

xiii. Backfilling of mine voids with SMS slag shall be appropriately reflected int eh Mine Plan and prior approval obtained thereof from Indian Bureau of Mines.

xiv. Proper utilization of fly ash shall be ensured as per Fly Ash Notification, 1999 and subsequent amendment in 2003 and 2009. All the fly ash shall be provided to cement and brick manufacturers for further utilization and Memorandum of Understanding shall be submitted to the Ministry's Regional Office at Bhopal.

xv. Risk and Disaster Management Plan along with the mitigation measures shall be prepared and a copy submitted to the Ministry's Regional Office at Bhopal, SPCB and CPCB within 3 months of issue of environment clearance letter.

xvi. A time bound action plan shall be submitted to reduce solid waste, its proper utilization and disposal.

xvii. As proposed, green belt shall be developed in 33 % of plant area. Selection of plant species shall be as per the CPCB guidelines in consultation with the DFO.

xviii. All the recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for the Steel Plants shall be implemented.

xix. At least 5 % of the total cost of the project shall be earmarked towards the Enterprise Social Commitment (ESC) based on locals need and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office at Bhopal. Implementation of such program shall be ensured accordingly in a time bound manner.

xx. The Company shall submit within three months their policy towards Corporate Environment Responsibility which shall 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.

xxi. All the commitments made to the public during the Public Hearing / Public Consultation meeting held on 18.5.2012 shall be satisfactorily implemented and a separate budget for implementing the same shall be allocated and information submitted to the Ministry's Regional Office at Bhopal.

xxii. Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, Safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.

20.5 Terms of Reference (TOR) Cases

20.5.1 Proposed integrated cement project Clinker (2 MTPA), Cement (3 MTPA), Captive Power Plant (35MW) and WHRB (8MW) of **M/s Talvadi Cements Limited** at village Bari & Puraini, Tehsil Raghuraj Nagar, Dist. Satna, Madhya Pradesh **(TOR)**

1. The PP along with their EIA-EMP consultant (M/s J.M.EnviroNet Private Limited - Gurgaon) 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.

2. M/s Talvadi Cements Limited have proposed to set up an integrated cement project Clinker (2 MTPA), Cement (3 MTPA), Captive Power Plant (35MW) and WHRB (8MW) at village Bari & Puraini, Tehsil Raghuraj Nagar, Dist. Satna, Madhya Pradesh. Total land required for the proposed project is 91.81 ha. The longitude and latitude of the project site is 80° 52' 29.63"E to 80° 53' 20.30"E and 24° 37' 24.84"N to 24° 38' 34.43"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. Only two Reserve Forests (RF) falls within 10 km radius: - Reserve Forest (~ 100m in E direction), Reserve Forest (6.0 km in ESE direction) & Jamori Reserve Forest (~7.5 km in ESE direction). Water bodies exists in the study area are:- Badkhar Nala (~3.0 km in SSE direction), Magardaha Nala (~6.5 km in NW direction), Chuhar Nala (~7.0 km in NW direction), Simrawal Nadi (~7.0 km in NNE direction), Tamasa River (~7.0 km in SSE direction), Gahira Nala (~8.0 km in S direction) and Rani Talao (~9.5 km in SE direction). Raw materials required for the proposed project will be Limestone (2.84 MTPA), Laterite (0.04 MTPA), Gypsum (0.99 MTPA) & Fly ash (0.90 MTPA) which will be procured from Captive Mine, Local Sources, Kanasar and Jodhpur (Rajasthan) & MPPGCL, NTPC, Hindalco, IFFCO and HLL power plants, CPP, respectively. Terms of Reference (ToR) for the limestone mining project was accorded vide F.No.J-11015/285/2013-IA.II(M) dated 29.1.2014. Around 5995 m^3/day of water will be required for the proposed project which will be sourced from existing Sagmania Mine Pit. Total power requirement for proposed project will be 39 MW which will be sourced from CPP, WHRS & Madhya Pradesh State Electricity Board (MPSEB). Total cost of the project is Rs. 2955 crores. Capital cost for Environmental Protection Measures is Rs. 42.8 crores and Recurring cost is Rs. 3 crores/annum.

3. The details of the proposed production facilities are as below:-

S. No.	Units	Proposed Capacity
1.	Clinker	2 MTPA
2.	Cement	3 MTPA
3.	Captive Power Plant	35 MW
4.	WHRB	8 MW

4. The major sources of pollution in a cement plant will be 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 major water, noise & soil pollution is envisaged from the project activity. Various mitigation measures will be undertaken to take care of the environment in respect of air, water, noise, soil & the green cover of the project site & nearby villages. No waste water will be generated from cement manufacturing process, as it is based on dry process technology. Waste water generated from CPP will be recycled back to the process and used for dust suppression after proper neutralization. Domestic waste water generated from the plant office and canteen will be disposed off in septic tank via soak pit. Rain water harvesting will be done inside the plant premises. No solid waste will be generated from cement manufacturing process. Dust collected from various pollution control equipments will be recycled back to the process. Fly ash generated from CPP will be utilized in manufacturing of cement. Out of the total project area (i.e. 91.81 ha), 33.06 ha (i.e. 36% of the total area) will be developed under green belt/ plantation. Green belt development will be done all along the road, plant boundary & colony which will attenuate noise level, arrest dust & to increase aesthetic beauty of the area.

5. After detailed deliberations, the Committee prescribed following specific TORs for undertaking detailed EIA-EMP study in addition to the generic TOR enclosed at **Annexure I read with additional TORs at Annexure-3**:

i. Confirmation from the State Forest Department no forest land is involved in the project site and impact of proposed project on the nearby Reserve Forests
ii. P.H. shall be conducted by the Madhya Pradesh Pollution Control Board as per the generic TOR.

20.5.2 Proposal for establishment of industrial unit consisting of sponge iron (1000 TPD), Pellet plant (1500 TPD), MS Ingots/Billets (1000 TPD), structural TMT bar (1000 TPD) along with power generation (50 MW) **of M/s Kapila Metals Pvt.Ltd.** at B-102 to 105, Addl.MIDC Area, Phase III, Jalna, District Jalna, Maharashtra **(TOR)**

The Committee deferred the consideration of the aforesaid proposal as the proponent/consultant (M/sUltra Tech – Mumbai) was unable to explain the salient features of the proposed project and the proposal was incomplete in several technical aspects. After detailed deliberations, the Committee sought for the revised form I and pre-feasibility project report from the proponent for fresh consideration of the proposal. Further, the Committee requested the proponent/consultant (M/sUltra Tech – Mumbai) 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.

20.5.3 Proposal for setting up of Cement Plant (6.4 MTPA), Clinker (4 MMTPA) and Captive Power Plant (80 MW) of **M/s V P Cements (P) Limited** at Sy. No. 280, 322 - 331, 346 - 361, 379 - 380, 395 - 463, 490 -493 and 496-493, Gundlakunta Village, Peddamudiam Mandal, Y.S.R Kadapa District, Andhra Pradesh (**TOR)**

1. The PP along with their EIA-EMP consultant (M/s Team Labs and Consultants - 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.

2. M/s V. P. Cements Private Limited have proposed to set up an integrated cement project Clinker (2 MTPA), Cement (3 MTPA), Captive Power Plant (35MW) and WHRB (8MW) at Sy. No. 280, 322 - 331, 346 - 361, 379 - 380, 395 - 463, 490 -493 and 496-493, Gundlakunta Village, Peddamudiam Mandal, Y.S.R Kadapa District, Andhra Pradesh. Total land required for the proposed project is 150 ha (part of mine lease area). The longitude and latitude of the project site is 78^{o} 23' 37.8" E and 14^{o} 56' 15.6" N respectively. The company has proposed to acquire 150 ha of land for the proposed Cement plant including 6.0 ha of land for residential colony, in which 50.0 ha of the area shall be brought under green belt. There is no National Park, Bird sanctuaries and biosphere reserve exists within 10 km radius of the project site. No Forest land is involved. Nearest village is Gundlakunta located at a distance of 1.8km from the project site. Penneru river is located at a distance of 9km from the project site. Nearest town is Jammalamadugu located at a distance of 9.0km in south direction. The main approach road is Jammalamadugu to Koilkuntla road passing at a distance of 1.2km in East direction. Nossam railway station is at a distance of 4.0 km in North direction. Raw materials required for the proposed project will be Limestone, bauxite, iron ore, gypsum, fly ash, slag and coal. Limestone will be sourced from the captive mine and transported to the plant site by conveyor. Around 2570m^3/day of water will be required for the proposed project which will be sourced from ground water/mine discharge. The power requirement (80MW) will be met from the CPP and APTRANSCO. Total capital cost of the project is Rs. 1600 crores.

3. The details of the proposed production facilities are as below:-

S. No.	Units	Proposed Capacity
1.	Clinker	4.0 MTPA
2.	Cement	6.4 MTPA
3.	Captive Power Plant	80 MW

4. The sources of air pollution from the proposed plant are Crusher, Raw mill, Kiln, Silo, Clinker silo, Cement mill, Coal crusher, Coal mill, fly ash silo, packing plant, captive power plant boilers and DG sets. It is proposed to provide bag filter as air pollution control equipment to all the stacks except cooler and boilers, cooler and captive power plant boilers are connected with ESP, while effective stacks based on CPCB formula is proposed for DG sets

and boilers. The source of wastewater is from Plant, residential colony and boiler/cooling tower blow downs. Domestic wastewater of 289 KLD shall be sent to STP. Boiler and cooling tower are treated and reused for green belt development and dust suppression. The solid waste generated from the plant will be ash from the process/boiler shall be used in PPC. Waste oil will be used as secondary fuel in Kiln, used lead acid batteries are sent to authorized recyclers. Waste bags/damaged bags are sold to authorized buyers. General scrap will be sold to authorized recyclers. Sludge generated from STP will be used as manure in green belt area. Out of 150.0 ha of the land, green belt will be developed over 50 ha of land.

5. After detailed deliberations, the Committee prescribed following specific TORs for undertaking detailed EIA-EMP study in addition to the generic TOR enclosed at **Annexure I read with additional TORs at Annexure-3**:

i. Action plan for the feasibility of installation of WHRBs in the cement plant
ii. Undertaking from the PP that the natural drainage passing through the project site will not be disturbed.
iii. P.H. shall be conducted by the Andhra Pradesh Pollution Control Board as per the generic TOR.

20.5.4 Expansion of existing plant [Billets – 472 TPD; Structural TMT Bars – 1000 TPD] by installation of sponge iron (1000 TPD), Pellet plant (1500 TPD), MS Ingots/Billets (1000 TPD), structural TMT bar (1000 TPD) along with power generation (50 MW) of **M/s Omsairam Steels & Alloys Pvt Ltd.,** at plot F-1,2,3,8,9,10, Addl. MIDC Area, Ph.II and adjacent Gut No. 46 & 63, at village Daregaon, tehsil Jalna, Dist. Jalna, Maharshtra **(TOR)**

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

20.5.5 Proposal for setting up of Cement Plant (4.8 MTPA), Clinker (3 MMTPA) and Captive Power Plant (60 MW) of **M/s V P Cements (P) Ltd.** at survey no. 306 (part), village Chinnakomerla, tehsil Mylavaram, district Y.S.R Kadapa, Andhra Pradesh (**TOR)**

1. The PP along with their EIA-EMP consultant (M/s Team Labs and Consultants - 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.

2. M/s V. P. Cements Private Limited have proposed to set up an integrated cement project Cement Plant (4.8 MTPA), Clinker (3 MMTPA) and Captive Power Plant (60 MW) at survey no. 306 (part), village Chinnakomerla, tehsil Mylavaram, district Y.S.R Kadapa, Andhra Pradesh. Total land required for the proposed project is 101.2 ha. The longitude and latitude of the project site is 78^{o} 22.7' 45" E and 14^{o} 55' 32" N respectively. The company has proposed to acquire 101.2 ha of land for the proposed Cement plant including 3.0ha of land for residential colony, in which 34.0 ha of the area shall be brought under green belt. There is no National Park, Bird sanctuaries and biosphere reserve exists within 10 km radius of the project site. No Forest land is involved. The nearest village from the plant site is Bodupalle which is at a distance of 1.4 km in south direction. Nearest town is Jammalamadugu located at a distance of 8.0km in south direction. The main approach road is Jammalamadugu to Tadipatri road passing at a distance of 2.1km in SW direction. Uppalapadu railway station is at a distance of 3.5 km in SE direction. Penneru River is flowing at a distance of 8.0km in south direction. Dalmia Cements Limited is located at a distance of 2.5km from the project site. Raw materials required for the proposed project will be Limestone, bauxite, iron ore, gypsum, fly ash, slag and coal. Limestone will be sourced from the captive mine and transported to the plant site by conveyor. Around 1930 m^3/day of water will be required for the proposed project which will be sourced from ground water/mine discharge. The power requirement (60MW) will be met from the CPP and APTRANSCO. Total capital cost of the project is Rs. 1600 crores.

3. The details of the proposed production facilities are as below:-

S. No.	Units	Proposed Capacity
1.	Clinker	3.0 MTPA
2.	Cement	4.8 MTPA
3.	Captive Power Plant	60 MW

4. The sources of air pollution from the proposed plant are Crusher, Raw mill, Kiln, Silo, Clinker silo, Cement mill, Coal crusher, Coal mill, fly ash silo, packing plant, captive power plant boilers and DG sets. It is proposed to provide bag filter as air pollution control equipment to all the stacks except cooler and boilers, cooler and captive power plant boilers are connected with ESP, while effective stacks based on CPCB formula is proposed for DG sets and boilers. The source of wastewater is from Plant, residential colony and boiler/cooling tower blow downs. Domestic wastewater of 216 KLD shall be sent to STP. Boiler and cooling tower are treated and reused for green belt development and dust suppression. The solid waste generated from the plant will be ash from the process/boiler shall be used in PPC. Waste oil will be used as secondary fuel in Kiln, used lead acid batteries are sent to authorized recyclers. Waste bags/damaged bags are sold to authorized buyers. General scrap will be sold to authorized recyclers. Sludge generated from STP will be used as manure in green belt area. Out of 101.2 ha of the land, green belt will be developed over 34 ha of land.

5. After detailed deliberations, the Committee prescribed following specific TORs for undertaking detailed EIA-EMP study in addition to the generic TOR enclosed at **Annexure I read with additional TORs at Annexure-3**:

i. Report on the details of the Australian stakeholder involved in the project along with the equity details

ii. P.H. shall be conducted by the Andhra Pradesh Pollution Control Board as per the generic TOR.

20.5.6 Proposed modernization of the existing Ferro alloys manufacturing unit of **M/s Raghuvir Ferro Alloys Private Limited** at plot no. 103 to 113, 130 to 136/A & 137, Sector C, Urla Industrial Area, village Urla, district Raipur, Chhattisgarh (**TOR**)

1. The PP along with their EIA-EMP consultant – M/s Pioneer Enviro Laboratories and Consultants Private Limited – Hyderabad gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken along with the draft Terms of References for the preparation of EIA-EMP report. All the Ferro Alloy Plants are listed at S.No. 3(a) in Primary Metallurgical Industries under category 'A' of the Schedule of EIA Notification, 2006 and appraised at the Central level.

2. M/s Raghuvir Ferro Alloys Private Limited have proposed to modernize the existing Ferro alloys manufacturing unit at plot no. 103 to 113, 130 to 136/A & 137, Sector C, Urla Industrial Area, village Urla, district Raipur, Chhattisgarh. It was informed by the proponent that the existing plant was established prior to the EIA Notification 2006. The proposed modernization will be achieved by increase in connecting load with grid system, increase in conductor capacity and by changing material handling capacity. The proposed modernization will be carried out in the existing plant area of 5 acres. No Forest land is involved. No National Park, Wildlife Sanctuary exists within 10 km radius of the project site. No court cases/litigation is pending against the project. Nearest village is Sarora at a distance of 0.5km. from the plant. River Kharun flows at distance of 5.2kms from the plant. Nearest Railway Station is Urkura RS at a distance of 3kms from the plant. The water requirement after the proposed modernization is 38 KLD which will be supplied by the CSIDC Limited. The power requirement is 12 MW which will be met from CSPDCL grids. Raw materials required are quartz, pet coke, M.S.Rounds, electrode paste, Mn ore, Mn slag and Cr ore, etc. Total cost of the proposed modernization would be Rs. 0.85 crores.

3. The details of existing and proposed modernization are as below:

Existing unit & production details:-

S. No.	*Units*	*Existing Production capacity*
1	*SEAFs*	*1 x 9 & 1 x 6 MVA SEAFs are in operation*
a.	*Hi Carbon Fe–Cr*	*3600 Tons/ year*
b.	*Hi Carbon Fe–Si*	*2400 Tons/ year*
c.	*Silico–Manganese*	*4500 Tons/ year*
d.	*Ferro–Manganese*	*5400 Tons/ year*
	Total Production capacity	***15900 Tons/ year***

Proposed unit & production details:

S. No.	*Units*	*Total production capacity after Modernization*
1	*SEAFs*	*1 x 9 & 1 x 6 MVA SEAFs*
a	*High Carbon Fe Cr*	*17200 Tons/ year*
	or	
b	*Hi Carbon Fe Si*	*10200 Tons/ year*
	or	
c	*Silico–Manganese*	*20000 Tons/ year*
	or	
d	*Ferro–Manganese*	*28800 Tons/ year*

4. After detailed deliberations, the Committee prescribed following specific TORs for undertaking detailed EIA-EMP study in addition to the generic TOR enclosed at **Annexure I read with additional TORs at Annexure-2**:

i. Ferro-Chrome slag management plan.
ii. P.H. shall be conducted by the Maharashtra Pollution Control Board as per the generic TOR.

The Committee sought status of EC obtained for the existing unit and if not, reasons therefor shall be provided. In addition, Copies of Consent to Establish/No Objection Certificate and Consent to Operate (in case of units operating prior to EIA Notification 2006, CTE and CTO of FY 2005-2006) obtained from the SPCB shall be submitted to the Ministry before the award of TOR.

20.5.7 Greenfield Integrated Cement project consisting of Clinker (2.4 MTPA), Cement (4 MTPA), Captive Power Plant (25MW) and Waste Heat Recovery Power Generation (15 MW) of **M/s Shree Cement Ltd.**, near village Pedagarlaped, Mandal Karempudi, District Guntur, Andhra Pradesh (TOR)

1. The PP along with their EIA-EMP consultant (M/s EMTRC Consultants Private Limited - Delhi) 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.

2. M/s Shree Cement Limited have proposed to set up a greenfield Integrated Cement project consisting of Clinker (2.4 MTPA), Cement (4 MTPA), Captive Power Plant (25MW) and Waste Heat Recovery Power Generation (15 MW) near village Pedagarlaped, Mandal Karempudi, District Guntur, Andhra Pradesh. Total land requirement for the project is 142.79 ha. The longitude and latitude of the project site is 79 43' 48" N to 79 44' 40" E and 16 30' 51" N to 16 31' 25" 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. Nearest town is Dachepalli located at a distance of 5.1 km N from the project site. Nearest Railway Station is Nadikudi located at a distance of 4.5 km N from the project site. Nagarjuna Sagar Right Bank Canal (Jawahar Canal) is located at 7.5 km in SE and 10 km in S direction from the project site. Raw materials required for the proposed project will be Limestone (3.6 MTPA), bauxite (0.105 MTPA), iron ore (0.036 MTPA), gypsum (0.2 MTPA), fly ash (1.4 MTPA), coal or petcoke (0.387 MTPA & 0.24 MTPA). Limestone will be sourced from the captive mine and transported to the plant site by conveyor belt. Around 1350 m^3/day of water will be required for the proposed project which will be sourced from ground water. The power requirement (32.5 MW) will be met from the CPP and WHRB. Total capital cost of the project is Rs. 1234 crores. Rs. 50 crores and Rs. 1 crore is earmarked towards the capital cost and recurring cost per annum towards the environmental pollution control measures.

3. The details of the proposed production facilities are as below:-

S. No.	Units	Proposed Capacity
1.	Clinker	2.4 MTPA
2.	Cement	4.0 MTPA
3.	Captive Power Plant	25 MW
4.	WHRB	15 MW

4. After detailed deliberations, the Committee prescribed following specific TORs for undertaking detailed EIA-EMP study in addition to the generic TOR enclosed at **Annexure I read with additional TORs at Annexure-3**:

i. Action plan for water harvesting shall be submitted
ii. Ground water management plan shall be submitted.
iii. P.H. shall be conducted by the Andhra Pradesh Pollution Control Board as per the generic TOR.

20.5.8 Proposed Modernization of Existing Open Circuit Mills (4) with one Modern Energy Efficient Roll Press closed circuit Ball Mill combination in the existing cement manufacturing unit of 1.825 MTPA capacity of **M/s India Cements Limited** at Survey Nos., 384/1B, 385A/1 & 386A, 407A/1a, 409B/1a, 410B/1A, 411A/1B, 1A, 412/1A1, 413/1, 414, 415, 415 to 424, 837/1A2B & 837/1B2 at village Narnamalpuram village (Sankar Nagar), Taluk & District Tirunelveli, Tamil Nadu (**TOR)**

The PP along with their EIA consultant M/s ABC Techno Labs – Chennai gave a detailed presentation on the salient features of the modernization project and proposed environmental protection measures to be undertaken along with the draft Terms of References for the preparation of EIA-EMP report. The proposed modernization activity is covered under S.No. 3(b) under Category 'A' of the schedule of EIA Notification, 2006 and appraised by the Expert Appraisal Committee (Industry) of MOEF.

It was informed by the PP that they were operating an 0.40 MTPA Cement manufacturing unit at village Narnamalpuram village (Sankar Nagar), Taluk & District Tirunelveli, Tamil Nadu since 1948 with requisite consents from M/s Tamil Nadu State Pollution Control Board (TNPCB). Further, capacity enhancement of the cement plant (from 0.4 to 1 MTPA) was undertaken during 1969, 1984 and 1990. Thereafter, in 2001 the capacity of the cement plant was increased from 1 MTPA to 1.825 MTPA. Since, the said expansion cost was less than Rs. 50 crores and not covered under the purview of the EIA Notification dated 27.1.1994, the PP approached the TNPCB for the grant of consents. TNPCB granted Consent to Establish (CTE) for the cement plant expansion from 1 MTPA to 1.825 MTPA on 24.4.2006 after conducting Public Hearing on 23.7.2001 under the provisions of the EIA Notification

1994. Consent to Operate was granted on 21.09.2006. The present consented quantity of clinker & cement capacities are 1.562 MTPA and 1.825 MTPA respectively.

The Status of the project is summarised below:

S.N.	Capacity of Cement Unit (MTPA)	Year	Status of Clearances Obtained
1.	0.40	1948	Not reqd.
2.	0.40 to 1	1969, 1984 and 1990	Consents obtained from TNPCB
3.	1 to 1.825	2001	Not covered under EIA Notification 1994 as the unit was less than Rs 50 crores. However, TNPCB granted a CTE after conduct of P.H. on 23.07.2001 vide provisions of the EIA Notif. 1994. CTO was granted by TNPCB on 21.09.2006 for production of clinker of 1.562 MTPA and cement of 1.825 MTPA.
Proposal for which PP has approached MOEF:			
4.	Continue at 1.825 MTPA	2014	Modernize the existing open circuit mills (4) with one modern energy efficient roll press closed circuit Ball Mill combination in the existing cement manufacturing unit without increasing cement manufacturing capacity of 1.825 MTPA. There will not be any change in the process and or technology or involving a change in the product mix.

PRESENT PROPOSAL OF INDIA CEMENTS

M/s India Cements Limited have now proposed to modernize the existing open circuit mills (4) with one modern energy efficient roll press closed circuit Ball Mill combination in the existing cement manufacturing unit without increasing cement manufacturing capacity of 1.825 MTPA at Survey Nos., 384/1B, 385A/1 & 386A, 407A/1a, 409B/1a, 410B/1A, 411A/1B, 1A, 412/1A1, 413/1, 414, 415, 415 to 424, 837/1A2B & 837/1B2 at village Narnamalpuram village (Sankar Nagar), Taluk & District Tirunelveli, Tamil Nadu. PP submitted the certified compliance status for the existing unit obtained from the TNPCB and informed that the TNPCB has desired that the unit has to obtain prior environmental clearance from MoEF since **the existing cement manufacturing capacity i.e. 1.825 MTPA, is beyond the threshold limit prescribed in the schedule to the EIA Notification 2006** and a CTE from TNPCB thereafter for the proposed modernization activity. In view of this, PP informed that they have approached the Ministry modernize the existing open circuit mills (4) with one modern energy efficient roll press closed circuit Ball Mill combination in the existing cement manufacturing unit without increasing cement manufacturing capacity of 1.825 MTPA. Further, it was informed by the PP that there will not be any change in the process and or technology or involving a change in the product mix. The proposed modernization will be carried out in the existing plant area of 121.69 acres. The latitude and longitude of the project site is $8^{o}47'05"$N & 77^{o} 43'50" E respectively. No Forestland is involved. National Highway: NH-44 (Kanyakumari – Bengalaru) is at a distance of 0.5 km from the project site. Nearest railway station is Talaiyuthu located at a distance of 1.25km from the project site. Gangaikondan spotted deer sanctuary is located at a distance of 4km from the project site. River Thamirabarani is located at a distance of 3.4km from the project site. Talaiyuthu Reserve Forests is located at a distance of 2.1km from the project site. The water requirement for the proposed modernization is 2302 KLD which will be drawn from the river Thamirabarani. Power requirement for the cement plant is 24 MW. No court cases/litigation is pending against the project. Total cost for the proposed modernization activity is Rs.75 crores.

The pollution load details due to the proposed modernization as given by the PP are as below:-

S.No	Environmental Component	Existing	Additional/change	Remarks
1.	Land area	121.69 acres	No change	**Green belt area will be increased from 25 % to 33% of total area**
2.	Water consumption	2400 KLD	2302 KLD	**Per day water requirement will be reduced by 98 KLD**
3.	Power consumption	24 MW	24 MW	**4 old mills power consumption is equivalent to the proposed new ball – roller press power requirement.**
4.	Air pollution load	6.48 µg/m^3 incremental in the GLC	1.06 µg/m^3 incremental in the GLC	**Air pollution load will reduce drastically**, since we have proposed to install advance and high efficient cement grinding system
5.	Water pollution load (Sewage)	24 KLD	24 KLD	**As there is no proposal for any additional man power requirement during operational stage, generation of sewage will remain same.**
6.	Solid waste load	Not applicable	Not applicable	**There is no solid waste generation from the cement manufacturing process.**

It was submitted by the PP that the aforesaid modernization may be exempted from the Public Consultation as there is no any change in the process and/or technology or involving a change in the product mix and requested the Ministry for the grant of TOR.

After detailed deliberations, the Committee was of the view that the aforesaid modernization activity may not require an environmental clearance from MoEF as the plant was established prior to the EIA notification 2006 and the present proposal does not involve expansion in capacity but only modernization which would reduce the pollution load. It was noted that the MOEF has brought out a Circular No. J-11013/41/2006-IA.II(I) dated 14.12.2006 para (ii) which states as follows:
"Projects involving modernization of the existing unit with increase in total production capacity beyond the threshold limit specified in the schedule to the Notification, through change in process or technology or change in the product mix or de-bottlenecking or a combination of these, involving increase in pollution load will obtain prior environmental clearance from the regulatory authority concerned under the EIA Notification 2006."

It was noted that although the TNPCB has stated, the existing production capacity of 1.825 MTPA itself is beyond the threshold limit prescribed in the schedule to the EIA Notification 2006 and any modernization thereto would require an EC from MOEF, the EAC was of the view that since the PP proposes to modernize the existing open circuit mills (4) with one modern energy efficient roll press closed circuit Ball Mill combination in the existing cement manufacturing unit **without increasing the already existing cement manufacturing capacity of 1.825 MTPA** that the aforesaid modernization activity will not require an environmental clearance from MoEF as the plant was established prior to the EIA notification 2006 and had attained **cement manufacturing capacity of 1.825 MTPA prior to the EIA notification 2006**.

20.6 Any Other Items

20.6.1 Expansion of Re-rolling Mill (46,000 TPA) and establishment of New Ferro Alloys (8,000 TPA) of **M/s Shri Bajrang Alloys Ltd** at Urla Industrial Area, Village Sarora, Tehsil & District Raipur in Chhattisgarh**(Extension of validity of TOR dated 23.03.2012)**

Terms of Reference (TORs) to the above proposal was accorded by MOEF vide letter no. J-11011/43/2012-IA II (I) dated 23.03.2012. Thereafter, Ministry vide letter dated 24.07.2012 exempted the project from public hearing as per section (iii) stage (3), para (I) (b) of EIA Notification 2006. PP vide letter no. SBAL/ENV/2013-14/5495 dated 18.03.2014 requested MOEF for extension of validity of TOR. PP along with their consultant M/s Bhagavathi Ana Labs Private Limited – Hyderabad made a presentation before the Committee.

It was submitted by the PP, following are reasons for seeking extension of validity of TOR:

- Baseline data was collected in Post monsoon Season, 2012
- Project was delayed due to low market demand
- Final EIA has been prepared for submission to MoEF

Further, the Committee noted that as per the MoEF O.M. No. J-11013/36/2014-IA.I dated 16.5.2014, the exemption from public consultation, as provided under para 7(i) III stage (3)(i)(b) of EIA notification 2006 is only available to the projects or activities located within the industrial estates or parks, which have obtained prior environmental clearance under EIA notification 2006, as provided for under item 7(c) of the schedule. In the present proposal under consideration, PP informed that Urla Industrial Area does not have prior environmental clearance. In view of this, the Committee asked the PP to approach the Chhattisgarh Environment Conservation Board for conducting Public Consultation.

After detailed deliberations, the Committee recommended for the extension of validity of TOR for a period of one year with effect from 22.03.2014 along with the following additional TOR:

i. 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.

20.6.2 Proposed Iron Ore Beneficiation Plant (0.8 MTPA), Pellet Plant (0.6 MTPA), Ferro Alloy Plant (24,000 TPA) along with Power Plant (25 MW) of **M/s Shri Bajrang Power & Ispat Ltd.** at Sy. Nos. 11-13, 19-23, Village Kothavuru, Tehsil S. Kota, District Vizianagaram in Andhra Pradesh **(Extension of validity of TOR dated 23.03.2012)**

Terms of Reference (TORs) to the above proposal was accorded by MOEF vide letter no. J-11011/44/2012-IA II (I) dated 23.3.2012. PP vide letter no. SBPIL/ENV/2013-14/5496 dated 18.03.2014 requested MOEF for extension of validity of TOR. PP along with their consultant M/s Bhagavathi Ana Labs Private Limited – Hyderabad made a presentation before the Committee.

It was submitted by the PP, following are reasons for seeking extension of validity of TOR:

- Baseline data was collected in summer season 2013
- Project was delayed due to low market demand
- Draft EIA has been prepared as per TOR dated 23.3.2012 for submission to APPCB for Public Hearing

After detailed deliberations, the Committee recommended for the extension of validity of TOR for a period of one year with effect from 22.3.2014.

20.6.3 Proposed Cement Plant (2.0 MTPA Clinker & 2.0 MTPA Cement) along with Captive Power Plant (WHRB Power Plant - 5 MW & Coal Based Power Plant - 50 MW) of **M/s Abhijeet Cement Ltd**. at Villages Uchan & Bhilampur, Tehsil Kailaras, District Morena in Madhya Pradesh (**Extension of validity of TOR dated 26.04.2012)**

Terms of Reference (TORs) to the above proposal was accorded by MOEF vide letter no. J-11011/2/2012-IA II (I) dated 26.04.2012. PP vide letter no. ACL/CP-EC/14-2015/05 dated 21.4.2014 requested MOEF for extension of validity of TOR. PP along with their consultant M/s Bhagavathi Ana Labs Private Limited – Hyderabad made a presentation before the Committee.

It was submitted by the PP, following are reasons for seeking extension of validity of TOR:

i. Acute financial crisis in the company
ii. Preparation of EIA-EMP report got delayed as the project area is affected by the local issues and the access to the said area is restricted

After detailed deliberations, the Committee recommended for the extension of validity of TOR for a period of one year with effect from 25.04.2014.

20.6.4 Expansion of Sponge Iron Plant into Mini Steel Plant (Sponge Iron Plant 100 TPD; Induction Furnaces 2x10 TPD; Ladle Furnace 1x12 TPD; Continuous Billet Casting Machine 70,000 TPA, Bar & Rod Mill) and Captive Power Plant (10 MW) of **M/s Dhruvdesh Metasteel Pvt. Limited** at Hirenbangal, Koppal, Karnataka (**Amendment in the capacity of Production by use of pellets instead of lumps)**

Environmental Clearance (EC) to the proposal cited above was accorded by MoEF vide letter no. J-11011/391/2006-IA.II(I) dated 23.12.2008. PP vide letters dated 11.7.2013, 23.8.2013 and subsequent communication dated 10.12.2013 along with the updated Form I has requested MoEF for extension of validity of EC and also amendment in the EC for increase in sponge iron production by use of pellets instead of lumps.

The aforesaid proposal was considered by the Expert Appraisal Committee (EAC) in its 15th meeting held during 29-30th January 2014. As per the minutes of the meeting, the Committee recommended for the extension of validity of EC by a period of five years with effect from 22.12.2013 subject to environmental safeguards. Accordingly, Ministry vide letter dated 19.5.2014 extended the validity of the EC. With respect to the amendment in EC dated 23.12.2008 for the increase in sponge iron production from 60,000 TPA to 90,000 TPA, the EAC sought the following documents from the PP for the reconsideration of the proposal:-

i. Data regarding stack emission with iron ore lumps and iron ore pellets
ii. Project report for the proposed change of raw materials from Lump Iron ore & Singareni Coal to Iron ore pellets and High Grade South African Coal.

PP vide letter no.DMPSL/MOEF dated 6.3.2014 submitted the aforesaid information and the proposal was placed before the EAC for reconsideration. PP along with their consultant M/s Environmental Health and Safety Consultants Private Limited – Bangalore made a presentation before the Committee.

The stack emission data comparison with use of iron ore lumps and iron ore pellets are as given below:

Parameter	Unit	When iron ore lump is used	When iron ore pellets are used
SPM	mg/Nm^3	85.33	71.75
SO_2		87.93	74.45
NO_X		11.83	4.94

With respect to proposed changes of raw materials Lump Iron ore & Singareni Coal to Iron ore pellets and High Grade South African Coal, PP submitted the following:

Production Level with Lump Iron Ore: 2 Nos X 100 TPD X 300 Days = 60,000 TPA
Production Level with Iron Ore Pellet: 2 Nos X 130 TPD X 345 Days = 89,700 TPA say 90,000 TPA

It was informed by the PP that the increase in production will be achieved by using superior properties of pellets which increases the productivity and also the availability of Kiln due to longer campaign life.

The Committee noted that as per the EIA-EMP report submitted to the Ministry the production of sponge iron of 60,000 TPA is based on the 330 days of operation whereas now PP has stated that the existing operation is based on 300 days of operation. Further, the Committee was of the view that the PP may not able to achieve 50% increase in production i.e from 60,000 TPA to 90,000 TPA merely by using iron ore pellets and the imported coal and the matter under consideration is an expansion proposal.

After detailed deliberations, the Committee recommended that an amendment to EC for the proposed revision in the production capacities of sponge iron from 60,000 TPA to 90,000 TPA in the EC accorded on 23.12.2008 cannot be amended as it is an expansion proposal (50% increase). M/s Dhruvdesh Metasteel Pvt. Limited shall submit a fresh application in accordance with procedure stipulated in the EIA Notification, 2006 for the proposed expansion of sponge iron production from 60,000 TPA to 90,000 TPA.

20.6.5 Integrated Cement Plant (Clinker, 3.0 MTPA, Cement 10.0 MTPA), Limestone mine (4.8 MTPA, 267.695 ha and 281.339 ha) and Captive Power Plant (40 MW) of **M/s JK Lakshmi Cement Ltd.,** at village Semaria, Ghikuria and Nandani Kundani, Tehsil Dhamda, District Durg, Chhattisgarh (**Amendment in EC dated 13.5.2009 regarding change of mode of limestone transport and EC validity extension**).

Environmental Clearance (EC) to the above proposal was accorded by MOEF vide letter no. J-11011/1170/2007-IA II (I) dated 13.5.2009. Thereafter, EC amendment was granted on 27.2.2010. PP vide letter no.JKCL/DU/ENV/EC-1/0515 dated 15.5.2014, no. JKCL/DU/ENV/EC-1/0517 dated 17.5.2014 and letter no. JKCL/DU/ENV/EC-1/0507 dated 12.6.2014 along with the updated Form I requested MOEF for extension of validity of EC and also sought for the amendment in the EC regarding change of mode of limestone transportation. PP made a presentation before the Committee.

(i) EC validity extension:

PP submitted that following are the reasons for seeking extension of validity of the ToR:

i. EC for Cement Plant along with CPP was issued in 2009 to setup Integrated Cement Unit in two phases i.e. Phase – 1 & Phase – 2
ii. Consent to Establish was issued in June, 2011
iii. Work on project was started by end of 2011
iv. Phase – 1 of the project is almost ready and is due for commissioning in Aug. 2014.
v. Project implementation got delayed due to various reasons e.g. delay in issuance of CTE, heavy rainfall during the past three years, shortage of skilled & semiskilled manpower, delay in supply of some imported components.
vi. Work on implementation of Phase – 2 & CPP shall be taken up once phase – 1 is commissioned.

After detailed deliberations, the Committee recommended for the extension of validity of EC by a period of five years with effect from 12.5.2014 subject to environmental safeguards.

(ii) Amendment in the EC dated 13.5.2009 for the transportation of limestone from captive mine to cement plant through road till construction of pipe belt conveyor is completed:

As per the EC awarded, the limestone mine (4.8 MTPA) is located at a distance of 5km from the cement plant site. Further, as per the proposal submitted by the PP during the grant of EC, the limestone was supposed to be transported from the mines to the plant site by covered conveyor belt. However, PP sought amendment in the EC dated 13.05.2009 for the transportation of limestone from captive mine to cement plant through road until construction of pipe belt conveyor is completed due to the following reasons:

i. Cement plant is under final stage of erection and is planned to be commissioned by Aug. 2014.
ii. Work on pipe conveyor (a state of art technology) for transport of limestone from mines to plant is undergoing.
iii. There is a mismatch between the plant commissioning & expected commissioning of the pipe conveyor due to late delivery of imported components required for the pipe conveyor and the land related issues.
iv. Till the pipe conveyor is ready for commissioning, JKCL proposes to transport lime stone from captive mine to cement plant, which is approx 5 Kms, through road.
v. Out of the total road distance, 4.0 kms is within the JKLCL premises and approximately 1.0 km is Govt road.

After detailed deliberations, the Committee recommended for the amendment in the EC dated 13.5.2009 for the transportation of limestone from captive mine to the cement plant site through road till construction of pipe belt conveyor is completed subject to the stipulation of following additional specific conditions:

i. Trucks engaged for limestone transportation shall be optimally loaded and covered with tarpaulin with no spillage en route. The trucks shall be properly maintained and emissions shall be below notified limits. Facilities for parking of trucks carrying limestone shall be created within the plant site.

ii. Vehicular pollution due to transportation of raw material and finished product shall be controlled. Proper arrangements shall also be made to control dust emissions during loading and unloading of the raw material and finished product.

iii. All approach roads shall be black topped and internal roads shall be concreted. The roads shall be regularly cleaned with mechanical sweepers.

20.6.6 Integrated Steel Plant (1.1 MTPA) and Cement Grinding Unit (1.0 MTPA) along with Captive Power Plant (1 X 300 MW coal based and 2X75 CFBC and 3X25 WHRB) of **M/s Adhunik Corporation Ltd.** at Dhanara, dist. Purulia, West Bengal **(Amendment of EC dated 15.05.2009 and extension of validity of EC)**

Environmental Clearance (EC) to the above proposal was accorded by MOEF vide letter no. J-11011/900/2007-IA II (I) dated 15.5.2009. PP vide letter dated 12.2.2014 along with the updated Form I and Pre-feasibility report requested MOEF for the amendment in the EC dated 15.5.2009 in respect of production capacities of various units and extension of validity of the EC. PP along with their EIA consultant: M/s EMTRC Consultants Private Limited – Delhi made a presentation before the Committee.

It was submitted by the PP that as per the EC accorded the total land requirement for the project is 645 ha. The said land was supposed to be acquired by West Bengal Industrial Development Corporation Limited (WBIDCL) and hand it over to the PP. However, WBIDCL could acquire only 205ha land and handed it over to the PP. Further as per the EC accorded the water requirement is 5700 m^3/hr which was supposed to be met from the Damodar river. However, PP has taken permission only for the 10.45 MGD of water drawl from River Damodar.

PP has now proposed to amend the various process units as accorded vide EC dated 15.5.2009 and also sought for the extension of validity of the EC. The amendment sought by the PP is as given below:

	Name of Unit	Product	Capacity as per EC (Tons/year)	Revised Capacity Proposed, (Tons/year)
1	Pellet Plant with Beneficiation Unit	Iron ore pellets	800,000	2500000 TPA iron ore fines beneficiation for producing 1,600,000 TPA pellets (revised)
2	Blast Furnace	Pig iron	700000	Deleted
3	Sponge Iron Plant	Sponge iron	1000,000	600,000 (revised)
4	Sinter plant	Sinter	750000	Deleted
5	Coke oven	Coke	600000	Deleted
6	Lime dolime plant	Calcined lime	100000	Deleted
7	Ferroalloy plant	Ferroalloy	50000	Deleted
8	Coal washery	Washed coal	1000000	1000000
9	Steel Making Shop and Rolling Mill)	Steel products	1,100,000	500,000 (revised)
10	Cement grinding unit	Cement	1,000,000	1,000,000 (PPC)
11	Captive power plant	Power	1 x 300 MW	1 x 300 MW (FBC)
12	Power generation using WHRB & AFBC Boilers	Power	2 x 75 MW AFBC 3 x 25 MW WHRB	2 x 75 MW AFBC Deleted 3 x 15 MW WHRB (revised)

Additionally, PP informed due to the revised project configuration following are the changes in the requirement of the raw materials, water and the pollution load.

S.No.	Details	As per the EC dated 15.5.2009	As per the EC amendment proposal	Remarks
1.	Land Area	645 hectares	205 hectares	Decrease in land area
2.	Iron ore	23,50,000 TPA	25,00,000 TPA	Increase in iron ore requirement
3.	Coal	37,60,000 TPA	25,00,000 TPA	Decrease in coal requirement
4.	Other raw materials	75,11,000 TPA	50,62,000 TPA	Decrease in raw materials due to the deletion of the units
5.	Water Consumption	4100 m^3/hour	1600 m^3/hour	Decrease in water consumption
6.	Air Pollution Load	PM - 406 kg/h SO_2 - 7574 kg/h NOx – 3015 kg/h	PM – 146 kg/h SO_2 – 2565 kg/h NOx – 1239 kg/h	Decrease in Air Pollution Load
7.	Water Pollution Load	378 kl/hour	144 kl/hour	Decrease in wastewater generation
8.	Solid Wastes Load	54,63,000 tons/year	27,95,975 tons/year	Decrease in solid waste generation
9.	Power need	400 MW	205 MW	-
10.	Project cost	Rs. 5560 cr	Rs.3730 cr	-

The Committee noted that even after 5 years, the PP has not started the project at all and till date, no construction activities have been started. The Committee further noted that the PP has not proposed to take up some of the units for which EC was granted, namely – Blast Furnace, Sinter Plant, Coke Oven, Lime Dolime plant, Ferro Alloy

Plant, Power generation with 2 x 75 MW AFBC and have been deleted. In some of the units, the capacity has been downscaled as given below:

Steel Making Shop and Rolling Mill)	Steel products	1,100,000	500,000 (revised)
Power generation using WHRB Boilers	Power	3 x 25 MW WHRB	3 x 15 MW WHRB (revised)

The revised proposal leading to change in scope of the project involves marginal increase in iron ore requirement and reduction in other raw materials due to deletion of a number of other units for which EC was obtained in 2009, leading to overall decrease in water consumption and solid waste generation, etc. The Committee after detailed deliberations, decided that the Form I & PFR submitted by the PP for the EC amendment proposal be considered as a fresh application for undertaking detailed EIA-EMP study afresh. The Committee prescribed for the aforesaid revised proposal the following specific TORs in addition to the generic TOR enclosed at **Annexure I (with the exception of conduct of Public Hearing) and additional TORs at Annexure-2** along with:

i. One season baseline environmental status as per the generic TOR.
ii. Copy of Approval of Competent Authority for drawl of Water from River Damodar.

The Committee further decided that no further amendment to the EC would be considered either for expansion of the aforesaid units or for reintroduction of the dropped units, namely Blast Furnace, Sinter Plant, Coke Oven, Lime Dolime plant, Ferro Alloy Plant, Power generation with 2x75 MW AFBC which have been deleted by the PP in the revised proposal and any further changes/modifications/expansion to the project would require obtaining fresh TORs and an EC afresh as per provisons of the EIA Notification 2006.

20.6.7 Expansion of Integrated Iron & Steel Plant of **M/s Sova Ispat Ltd**., at J.L.No.11, Jemua Mouza, Mejia Block, Dist. Bankura, West Bengal **(Amendment to EC dated 4.8.2008 for dropping Sinter Plant & Mini BF and Addition of Iron ore Beneficiation Plant & Pellet Plant and extension of validity of EC)**

Environmental Clearance (EC) to the above proposal was accorded by MoEF vide letter no. J-11011/724/2007-IA II (I) dated 4.8.2008. Thereafter, EC amendment was granted by MoEF on 18.4.2012 for the change in configuration of the sponge iron unit from 2x300 TPD + 3x100 TPD to 3x300 TPD. PP vide letter NO. SIL/MOEF/EC/08/01 dated 2.8.2013 along with the updated Form I and Pre-feasibility report requested MOEF for the amendment in the EC dated 4.8.2008 for inclusion of iron ore beneficiation & pellet plant along with the producer gas plant by dropping sinter plant & mini blast furnace and also extension of validity of the EC dated 4.8.2008. PP along with their EIA consultant: M/s Pioneer Enviro Laboratories & Consultants Private Ltd - Hyderabad made a presentation before the Committee.

(i) EC validity extension:

PP submitted that following is the implementation status of the projects:

S.N	Product / Unit	Units for which EC granted (E.C. obtained vide letter No. J-11011/ 724/ 2007- IA II (I) dated 04/08/08 & 18/04/12)	Units under Operation with valid Consent to Operate from West Bengal Pollution Control Board	Units proposed to be dropped for which EC issued	Balance facilities for which validity extension of EC required
		(a)	(b)	(c)	(e)

S.N	Product / Unit	Units for which EC granted (E.C. obtained vide letter No. J-11011/ 724/ 2007- IA II (I) dated 04/08/08 & 18/04/12)	Units under Operation with valid Consent to Operate from West Bengal Pollution Control Board	Units proposed to be dropped for which EC issued	Balance facilities for which validity extension of EC required
1.	Sponge Iron	3,60,000 TPA	1,50,000 TPA	---	**2,10,000 TPA**
2.	Sponge Iron Briquette	60,000 TPA	---	---	**60,000 TPA**
3.	Coal / Coke / Chrome fines Briquette	90,000 TPA	---	---	**90,000 TPA**
4.	**Mini Blast Furnace**	**1,20,000 TPA**	**---**	**1,20,000 TPA**	**----**
5.	**Sinter Plant**	**80,000 TPA**	**---**	**80,000 TPA**	**----**
6.	Oxygen Plant	4,000 TPA	---	---	**4,000 TPA**
7.	Steel Meting Shop (IF/EAF)	3,56,000 TPA	---	---	**3,56,000 TPA**
8.	Captive Power Plant (WHRB+FBC)	52 MW	15 MW (WHRB+AFBC)	---	**37MW (WHRB+FBC)**
9.	Ferro Alloy	55,000 TPA	32,400 TPA	---	**22,600 TPA**
10.	Cement Plant	75,000 TPA	75,000 TPA	---	**----**
11.	Hot Rolled TMT/Structural / Cold Rolled Bars	3,15,000 TPA	---	---	**3,15,000 TPA**

Following are the reasons for seeking extension of validity of the EC:

- Å Sponge Iron, Power Plant, Ferro Alloys & Cement Plant have been implemented and are operating under valid Consent to Operate from WBPCB.
- Å Poor uptake of Steel Product
- Å Tough market conditions and sluggish economy
- Å Steel market fluctuation
- Å Proponent assured that the remaining unimplemented units will be implemented in next 5 years

After detailed deliberations, the Committee recommended for the extension of validity of EC by a period of five years with effect from 03.08.2013 subject to environmental safeguards.

(ii) <u>Amendment in the EC dated 04.08.2008 for inclusion of iron ore beneficiation & pellet plant along with the producer gas plant by dropping sinter plant & mini blast furnace:</u>

The PP in addition to seeking extension of validity of EC also sought amendment in the EC dated 4.8.2008 as given below:

S.N	Product / Unit	Units for which EC granted (E.C. obtained vide letter No. J-11011/ 724/ 2007- IA II (I) dated 04/08/08 & 18/04/12)	Units under Operation with valid Consent to Operate from West Bengal Pollution Control Board	Units proposed to be dropped for which EC issued	Incorporation of new units for which EC amendment sought
		(a)	(b)	(c)	(e)
1.	Sponge Iron	3,60,000 TPA	1,50,000 TPA	---	----
2.	Sponge Iron Briquette	60,000 TPA	---	---	--
3.	Coal / Coke / Chrome fines Briquette	90,000 TPA	---	---	---
4.	**Mini Blast Furnace**	**1,20,000 TPA**	**---**	**1,20,000 TPA**	----
5.	**Sinter Plant**	**80,000 TPA**	**---**	**80,000 TPA**	
6.	Oxygen Plant	4,000 TPA	---	---	----
7.	Steel Meting Shop (IF/EAF)	3,56,000 TPA	---	---	----
8.	Captive Power Plant (WHRB+FBC)	52 MW	15 MW (WHRB+AFBC)	---	----
9.	Ferro Alloy	55,000 TPA	32,400 TPA	---	----
10.	Cement Plant	75,000 TPA	75,000 TPA	---	---
11.	Hot Rolled TMT/Structural / Cold Rolled Bars	3,15,000 TPA	---	---	----
12.	Iron ore beneficiation & Pellet plant (with producer gas unit)	---	---	--	0.63 MTPA & 0.6 MTPA (Producer gas – 24,000 Nm^3/hr)

The reasons submitted by the PP for dropping sinter plant & mini blast furnace are as below:

i. Proposal was to install Sinter plant with Blast Furnace to produce Pig Iron. Raw material require as Input are iron ore, coke, coal, quartz and limestone.
ii. Plant is far away from Iron Ore Mines such as Barbil, Orissa.
iii. Availability of Coke to meet the requirement was also difficult and finally logistic cost does not make the Blast Furnace unit viable in the present scenario

The PP informed that in view of the above, it has been proposed to go for backward integration to enrich Iron Ore Beneficiation followed by production of Pellet to use in existing DRI plant as substitute for Iron ore lumps. The proposed amendment involves change in scope of project – installation of iron ore beneficiation plant (0.63 MTPA) and Iron ore Pellet Plant (0.6 MTPA) and Producer gas Plant (24,000 Nm3/h) and deletion of two units – Mini Blast Furnace (1, 20,000 TPA) and Sinter Plant (80,000TPA).

Additionally, PP informed that due to the revised project configuration the following changes are proposed in the requirement of the raw materials, with marginal reduction in water requirement and reduction in air pollution load as given below:

S.No.	Details	As per the EC dated 4.8.2008	As per the EC amendment proposal
1.	Water Consumption	5928 m^3/day	5740 m^3/day
2.	Air Pollution Load	PM – 39.17 g/s SO_2 – 367.2 g/s NOx – 370.8 g/s	PM – 29.89 g/s SO_2 – 287.02 g/s NOx – 329.53 g/s
3.	Water Pollution Load	640 m^3/day	640 m^3/day
4.	Project cost	Rs. 754 crores	Rs. 751 crores

The Committee after detailed deliberations, noted that the new units are being introduced in the ISP for which appraisal of their impacts have not been carried out. The proposed amendment is being sought after 5 years, which changes the environmental profile of the area. After deliberations, the Committee based on the form I & PFR submitted by the PP for the EC amendment proposal as above, prescribed following specific TORs in addition to the generic TOR enclosed at **Annexure I (with the exception of P.H.) read with additional TORs at Annexure-2** for undertaking detailed EIA-EMP study afresh:

1. One season baseline environmental status as per the generic TOR.

The Committee further decided that no further amendment to the EC would be considered either for expansion of the aforesaid units or for reintroduction of the dropped units, namely Mini Blast Furnace and Sinter Plant which have been deleted by the PP in the revised proposal and any further changes/modifications/expansion to the project would require obtaining fresh TORs and an EC afresh as per provisons of the EIA Notification 2006.

20.6.8 Integrated Steel Plant (2.0 MTPA), Cement Plant.(1.4 MTPA) and Captive Power Plant (230 MW) of M/s B.M.M Ispat Ltd at Village Danapur, Taluk Hospet, District Bellary, Karnataka **(regarding amendment in EC dated 18.5.2010 in respect of production capacities)**

The aforesaid proposal was already considered in the 8th EAC meeting held during 16-17th May 2013. The relevant portion of the minutes is reproduced as below:-

"Environmental Clearance (EC) to the above proposal was accorded by MoEF vide letter no. J-11011/236/2008-IA II (I) dated 18.5.2010. The Project Proponent (PP) vide letter No. Nil dated 7.1.2013 requested MoEF for amendment in the EC in respect of the production capacities of various units. The PP has submitted the Form I, Feasibility Report, Compliance report and EIA-EMP report. The PP along with their consultant M/s Mecon also made a presentation before the Committee.

The amendment sought by the proponent is as below:

S.N.	***Facilities approved as per the EC dated 18.05.2010***	***Amendment sought***	***Remarks***
1	*Iron ore beneficiation plant (3.40 MTPA)*	*Iron ore beneficiation plant (3.40 MTPA)*	***No change***
2	*Pelletizing Plant - 1.20 MTPA (HFO & Pulverised Coal)*	*Pelletizing Plant - 1.20 MTPA (Coal gas & Pulverised Coal)*	***No change in the configuration.*** *Better fuel (coal gas) is used.*
3	*DRI Plant (0.70 MTPA)*	*DRI Plant (0.70 MTPA)*	***No change***
4	*Coke Oven (0.80 MTPA) –*	*Coke Oven (1.0 MTPA) –*	*Change in*

S.N.	Facilities approved as per the EC dated 18.05.2010	Amendment sought	Remarks
	Non Recovery Type	*Recovery Type*	*Technology and Increase in capacity*
5	*Sinter Plant (2.50 MTPA)*	*Sinter Plant (3.0 MTPA)*	*Increase in capacity*
6	*Blast Furnace (1.70 MTPA)*	*Blast Furnace (1.80 MTPA)*	*Increase in capacity*
7	*EAF & BOF Steel making (2.30 MTPA)*	*EAF & BOF Steel making (2.40 MTPA)*	*Change in capacity*
8	*Continuous casting machines* *Billet Caster – 1.10 MTPA* *Slab Caster – 1.10 MTPA*	*Continuous casting machines* *Billet Caster – 1.20 MTPA* *Bloom cum beam caster – 1.20 MTPA*	*Increase in capacity*
9	*Rolling mills :* *Hot strip mill - 1.0 MTPA* *Structural's/wire rods – 1.0 MTPA*	*Rolling mills :* *Bar Mill – 0.85 MTPA* *Medium section mill – 0.75 MTPA*	*Change (In place of wire rod and HR coil flat, Bar & section mills are envisaged)*
10	*Oxygen Plant (2x500 TPD)*	*Oxygen Plant (2x500 TPD)*	***No change***
11	*Calcining Plant (1080 TPD)*	*Calcining Plant (1400 TPD)*	*Increase in capacity*
12	*Cement Plant (1.40 MTPA)*	*Cement grinding unit (1.40 MTPA)*	***No change***
13	*Power Plant (230 MW) with the following configuration:* *2x70 MW Capacity Power Plant* *90MW Co-generation power plant* *2x52 tph boilers from DRI Kiln-I* *2x56 tph boilers from DRI Kiln-II* *Waste heat recovery boilers envisaged to recover heat from off gases of Non recovery coke oven*	*Power plant (230 MW) with the following configuration:* *2x70 MW Captive Power Plant* *70 MW from WHRB* *2x52 tph boilers from DRI Kiln-I* *2x56 tph boilers from DRI kiln -II* *1x130 tph coal fired power plant* *12MW from waste heat recovery boilers of Coke Dry Quenching Plant* *8 MW TRT from Blast Furnace*	***No change in capacity**. However there is **a change in configuration***
14	*Nil*	*1x50 TPH additional coal fired boiler to meet process steam requirement for BF, VD, Coal gasifier and purging*	***Additional Unit***
Additional Products			
1	*HR Coil*	*Medium and light section, structural and alloy steel bars and re-bars and semis (2 .0 MTPA)*	*Bar 7 medium section mills are proposed*
2	*Structural/Wire Rods (1.0 MTPA)*	*Wire rods not envisaged*	--
3	*Cement (1.4 MTPA) Cement grinding unit*	*Cement (1.4 MTPA)*	*No change*

The Committee had further noted that the capacity of the ISP (2 MTPA) will not be changed due to the aforesaid revision in the production capacities and plant configuration. Further, the land requirement will be reduced from 1429 ha to 1143.13 ha. No forestland is involved. No National Park/Wildlife Sanctuary/ecologically sensitive area is located within 10 km radius of the project site. A number of Reserve Forests such as Gunda RF (4km), Nandibanda RF (7km) and Ramgad RF (4km) are found within the study area. The water requirement is 3414 m^3/hr. Total cost

of the project after the proposed upward revision will be Rs. 6151 crores. Rs. 335 crores and Rs.30 crores is earmarked as a capital cost and recurring cost per annum towards the pollution control measures.

It was recalled that the Committee, after detailed deliberations, had recommended in the 8th EAC meeting held during 16-17th May 2013 that the aforesaid revision in the production capacities/plant configuration in the EC accorded on 18.5.2010 cannot be amended as it involves increase in pollution load and increase in raw materials requirement etc and had prescribed fresh TORs, which was accorded by MoEF vide letter dated 24.6.2013. PP vide letter no/BMM/MOEF/June 2013 dated 26.6.2013 sought for the exemption from Public Hearing. This was examined in the Ministry and Ministry vide letter dated 25.9.2013 had informed the PP to conduct fresh public hearing in accordance with the procedure prescribed under the EIA Notification 2006. Subsequently, PP vide letter no.BMM/MOEF/2/2013 dated 13.11.2013 informed the Ministry that the TOR submitted in July 2013 is being withdrawn due to the economic situation in the mining & steel sectors in Karnataka, uncertainty in getting iron ore in the state at fair price etc. Further, PP also informed the Ministry that the company is going ahead with the implementation of 2 MTPA ISP project as per the EC dated 18.5.2010.

PP thereafter, vide letter dated 16.2.2014 sought an amendment in the EC dated 18.5.2010. The proposal was placed before the EAC for consideration in this meeting.

It was submitted by the PP that following are the proposed amendment in the EC dated 18.05.2010:

S.N.	Facilities approved as per the EC dated 18.5.2010	Facilities approved as per the TOR dated 24.6.2013	Amendment sought vide letter dated 16.02.2014	Remarks
1	Iron ore beneficiation plant (3.40 MTPA)	Iron ore beneficiation plant (3.40 MTPA)	Iron ore beneficiation plant (3.40 MTPA)	No change
2	Pelletizing Plant (1.20 MTPA) (HFO & Pulverised Coal)	Pelletizing Plant (1.20 MTPA) (Coal gas & Pulverised Coal)	Pelletizing Plant (1.20 MTPA) (Coal gas & Pulverised Coal)	No change in the configuration. Better fuel (coal gas) is used.
3	DRI Plant (0.70 MTPA)	DRI Plant (0.70 MTPA)	DRI Plant (0.70 MTPA)	No change
4	Coke Oven (0.80 MTPA) Non Recovery Type	Coke Oven (1.0 MTPA) Recovery Type	Coke Oven (1.0 MTPA)- Recovery Type	Change in Technology and capacity
5	Sinter Plant (2.50 MTPA)	Sinter Plant (3.0 MTPA)	Sinter Plant (3.0 MTPA)	Increase in capacity
6	Blast Furnace (1.70 MTPA)	Blast Furnace (1.80 MTPA)	Blast Furnace (1.80 MTPA)	Marginal Increase in capacity
7	EAF & BOF Steel making (2.30 MTPA)	EAF & BOF Steel making (2.40 MTPA)	EAF Steel making (2.40 MTPA)	Marginal Increase in capacity
8	Continuous casting machines Billet Caster – 1.10 MTPA Slab Caster – 1.10 MTPA	Continuous casting machines Billet Caster – 1.20 MTPA Bloom cum beam caster – 1.20 MTPA	Continuous casting machines Billet Caster – 1.17 MTPA Bloom cum beam caster – 1.16 MTPA	Marginal increase in capacity from EC
9	Rolling mills : Hot strip mill - 1.0 MTPA Structural's/wire rods – 1.0 MTPA	Rolling mills : Bar Mill – 0.85 MTPA Medium section mill – 0.75 MTPA	Rolling mills Bar mill for 0.85 MTPA Medium section mill 0.75 MTPA	Change in products (In place of wire rod and HR coil flat, Bar

S.N.	Facilities approved as per the EC dated 18.5.2010	Facilities approved as per the TOR dated 24.6.2013	Amendment sought vide letter dated 16.02.2014	Remarks
				& section mills are envisaged)
10	Oxygen Plant (2x500 TPD)	Oxygen Plant (2x500 TPD)	Oxygen Plant (2x500 TPD)	No change
11	Calcining Plant (1080 TPD)	Calcining Plant (1400 TPD)	Calcining Plant (1400 TPD)	Increase in capacity
12	Cement Plant (1.40 MTPA)	Cement grinding unit (1.40 MTPA)	Cement grinding unit (1.40 MTPA)	No change
13	Power Plant (230 MW) with the following configuration: 2x70 MW Capacity Power Plant 90MW Co-generation power plant 2x52 tph boilers from DRI Kiln-I 2x56 tph boilers from DRI Kiln-II Waste heat recovery boilers envisaged to recover heat from off gases of Non recovery coke oven	Power plant (230 MW) with the following configuration: 2x70 MW Captive Power Plant 70 MW from WHRB 2x52 tph boilers from DRI Kiln-I 2x56 tph boilers from DRI kiln -II 1x130 tph coal fired power plant 12MW from waste heat recovery boilers of Coke Dry Quenching Plant 8 MW TRT from Blast Furnace	Power plant (230 MW) 2 x 70 MW - CPP 40 MW from WHRB 1x130 tph boiler 2x52 tph boilers - DRI Kiln 1 2x 56 tph boilers -DRI Kiln 2 12 MW from WHRB of CDQ 8 MW from TRT from BF	No change in capacity. However there is a change in configuration
14	Nil	1x50 TPH additional coal fired boiler to meet process steam requirement for BF, VD, Coal gasifier and purging	--	Dropped
Products				
1	HR Coil (1.0 MTPA)	Medium and light section, structural and alloy steel bars and re-bars and semis (2 .0 MTPA)	Medium and light section, structural & alloy steel bars and re-bars and semis (2.0MTPA)	Bar and medium section mills are proposed
2	Structural/Wire Rods (1.0 MTPA)	Wire rods not envisaged	Wire rods not envisaged	--
3	Cement (1.4 MTPA)	Cement (1.4 MTPA)	Cement (1.4 MTPA)	No change

The Committee noted (and confirmed by PP) that the present proposal of PP and the proposal submitted by the PP during the grant of TOR on 24.06.2013 are almost similar and in view of this, the Committee reiterated its earlier recommendations given its 8th meeting held during 16-17th May, 2013. The Committee stated that the PP must provide specific details with respect to the following:

(i) Extent of changes in pollution load due to the proposed changes in configuration.

(ii) Changes in input characteristics of the products
(iii) Changes in effluents
(iv) Solid waste generation.
(v) Fuel Consumption

The Committee also desired to know the status of implementation of the present project for which EC was granted on 18.05.2010 for further consideration of the matter.

20.6.9 Proposed 1.5 MTPA Clinker Grinding Unit of **M/s Modern Building Material Pvt. Ltd.** at Melamaruthur Village, Ottapidarm Taluk, Tuticorin District, Tamil Nadu **(Amendment in TOR dated 19.5.2014)**

The Terms of Reference (TORs) to the above proposal was accorded by MOEF vide letter no. J-11011/152/2013-IA II (I) dated 19.5.2014. PP vide letter dated 02.06.2014 requested for the amendment in the TOR dated 19.5.2014 for using the baseline data collected during summer Season 2014 (March–May 2014) and for the preparation of EIA-EMP report. The Committee noted and agreed to it.

ONGC PROPOSALS

20.7.1 Exploratory Drilling of 3 wells of M/s ONGC in Bengal Onshore Block WB-ONN-2005/2 under NELP-VII, West Bengal (EC)

The project proponent 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 27th Meeting of the Expert Appraisal Committee (Industry) held during 21st-22nd September, 2011 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 Oil & Natural Gas Corporation Ltd. (ONGCL) has proposed for the Exploratory Drilling (3 wells) in Bengal Onshore Block WB-ONN-2005/2, West Bengal under NELP- Total project area is 110x110 sq.m. Purbasthali Bird sanctuary is situated at a distance of 31 km form project site. Under the New Exploration Licensing Policy (NELP) of Government of India, M/s ONGCL has been awarded an exploration (onshore) Block WB-ONN-2005/2 in Bengal Basin, West Bengal for exploration of hydro carbons and the block area of 3792 sq. km is spread across Burdwan district and covering pars of Nadia district. M/s ONGCL has proposed to undertaking drilling activity under Minimum Work Programme (MWP). 3 wells will be drilled to test occurrence of hydrocarbons in identified formation and also to assess commercial viability of the block for hydro carbon production. Target length will be 1500, 2200 & 1500 m. Total cost of the project is Rs. 90 crores for all the 3 wells proposed. River Bhagarithi flows at a distance of 5 Km. Co-ordinates of the Block WB-ONN-2005/2 are as follows:

Point	Longitude			Latitude		
	Deg	Min	Sec	Deg	Min	Sec
A	87	45	0	23	50	0
B	87	50	0	23	50	0
C	88	26	0	23	50	0
D	88	26	0	23	30	0
E	88	32	0	23	30	0
F	88	32	0	23	20	0
G	87	45	0	23	20	0
A	87	45	0	23	50	0

The area of the points having following coordinates which encompasses Purbasthali Bird Sanctuary is excluded from the block.

The area of the points having following coordinates is excluded from the Block.

Point	Longitude			Latitude		
	Deg	Min	Sec	Deg	Min	Sec
a	88	11	0	23	46	0
b	88	20	0	23	46	0
c	88	20	0	23	37	0
d	88	11	0	23	37	0
a	88	11	0	23	46	0

The PP informed that ambient air quality monitoring was carried out at 8 locations during December, 2012 – February, 2013 and submitted data indicates PM_{10} (24.2-78.8ug/m^3), $PM_{2.5}$ (19.4-50.4ug/m^3), SO_2 (5.4-18.2ug/m^3) and NO_x (6.5- 12.3ug/m^3). Air emissions from D.G. sets will be dispersed by providing adequate stack height. Fresh water requirement from surface water source will be 15-20 m^3/day. Water based mud (WBM) will be used. Total wastewater generation will be around 16m^3/day. Drill cutting (DC) will be separated from water based mud (WBM) and washed properly and unusable drilling fluids (DF) will be disposed off in well designed lined pit with impervious liner for solar drying. Disposal of drill cuttings and drill mud will be carried out in accordance with the GSR 546 (E) dated 30th August, 2005. Used oil will be sent to authorised recyclers. HSD (250 LPH) will be used as fuel in rig and D.G. sets during drilling period. DG sets (4 x 1250 KVA) will be installed. Blow out prevention techniques will be part of drilling rig unit. Blow out preventers (BOP) will be installed to control fluid from the formation gushing to the surface. In the event the well is unsuccessful, the well bore will be cement plugged.

The Committee deliberated upon the issues raised during the Public Hearing/Public Consultation meeting conducted by the West Bengal State Pollution Control Board on 3rd January, 2014 for Burdwan District. The issues raised were regarding socio-economic development, CSR, restoration of land, etc. All the issues have been satisfactorily responded by the project proponent and incorporated in the final EIA-EMP report.

After detailed deliberations, the Committee based on the documents furnished and presentation made 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 present EC is for Exploratory Drilling only. In case Development drilling is to be done in future, prior environmental clearance must be obtained from the Ministry.

ii. 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.

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

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

v. 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 shall be provided as per CPCB guidelines.

vi. Total water requirement shall not exceed 20m^3/day and prior permission shall be obtained from the concerned agency.

vii. 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.

viii. 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 Bhubaneswar.

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

x. 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 authorized recyclers.

xi. 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.

xii. 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.

xiii. 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.

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 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.

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

xvii. 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.

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 shall be carried out as per the prevailing Acts and Rules.

xx. 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.

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

xxii. Oil content in the drill cuttings shall be monitored by some Authorized agency and report shall be sent to the Ministry's Regional Office at Bhubaneswar.

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

xxiv. 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.

xxv. 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.

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

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

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

20.7.2 Drilling of 25 wells Up – gradation of GCS, Gamnewala and lying of 6"dia, 46 Km. long underground pipeline of M/s ONGC in Jaisalemer Basin Rajasthan (EC)

The project proponent 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 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 drilling of 25 wells Up – gradation of GCS, Gamnewala and lying of 6"dia, 46 Km. long underground pipeline in Jaisalemer Basin Rajasthan. ONGC operating in this block since 1964. So far 80 wells already drilled (75 exploratory and 5 Developmental Wells). Basin area is 885.35 km^2. Basin area is V shaped. Western part of Rajasthan. The project is located 25km from Indo-Pak border plus 5km buffer area in-between. Gas is to be supplied to Ramgarh Power Station. Self & located to West of Aravallimonutains consists of 05 ML Blocks & 04 Marginal fields and pericratonic Indus Basin. Cost of project is Rs. 350 Crores. Depth of proposed wells varies from 1000 m to 3500 m.

Coordinates of Jaisalmer Basin are as given below:

Name	**Area (Sq. Km.)**	**Corner Points**	**Longitude**			**Latitude**		
			Deg.	**Min.**	**Sec.**	**Deg.**	**Min.**	**Sec.**
JaisalmerBasin	885.35	A	69	50	0	27	22	0
		B	70	0	50	27	0	23
		C	70	10	0	27	42	0
		D	70	10	0	27	39	40
		E	70	21	0	27	26	40
		F	70	16	50	27	22	58
		G	70	12	20	27	22	10
		H	70	7	39	27	23	0
		I	70	7	10	27	21	41
		J	70	5	24	27	22	12
		K	70	5	20	27	23	30
		L	70	6	40	27	24	0
		M	70	5	21	27	2	50
		N	70	59	38	27	18	10
		A	70	50	0	27	22	0

Existing facilities include one GCS of 75000 m3/day gas handling capacity. Current gas production is 45000 m3/day. Water requirement from water tanker will be 35 m3/day. Wastewater generation will be 3 m3/day. Drill cuttings

(50 – 300 MT) and few hundred m3 of mud from spent drilling fluid will be generated. Drill cutting (DC) will be separated from water based mud (WBM) and washed properly and unusable drilling fluids (DF) will be disposed off in well designed lined pit with impervious liner for solar drying. Disposal of drill cuttings and drill mud will be carried out in accordance with the GSR 546 (E) dated 30th August, 2005. Used oil will be sent to authorized recyclers. PP informed that dry gas production is expected, hence no production of formation water. HSD (290 LPH) will be used as fuel in rig and D.G. sets during drilling period. DG sets (4 x 1250 KVA) will be installed. Blow out prevention techniques will be part of drilling rig unit. Blow out preventers (BOP) will be installed to control fluid from the formation gushing to the surface. In the event the well is unsuccessful, the well bore will be cement plugged.

The Committee deliberated upon the issues raised during the Public Hearing/Public Consultation meeting conducted by the Rajasthan State Pollution Control Board on 26thFebruary, 2014 under the Chairmanship of Additional District Magistrate. The issues raised during Public Hearing were regarding electrification of villages, local employment, fire safety, availability of water supply for local etc. The Committee suggested ONGC to prepare action plan for Enterprises Social responsibility consisting of issues such as standby arrangement for electricity, water availability and local employment etc and implemented in time bound manner. In order to implement its CSR programme a committee consisting of local authorities, Panchayats of local villages and ONGC must be constituted and prepare and implement a need based CSR Programme.

After deliberations, the Committee desired following additional information:

i. Certified Compliance report of the condition stipulated in the existing Environmental Clearance by Regional Office.
ii. Action plan to be prepared for Enterprises Social responsibility consisting of local issues such arrangement of standby arrangement for electricity, water availability and local employment etc.

The PP shall provide the aforesaid information with the uploading of minutes on the website. It was decided that the aforesaid information when furnished by PP would be considered internally.

20.7.3 Drilling of 9 Exploration Wells of M/s ONGC in Kutch Offshore NELP-IX Block GK-OSN-2010/1, GK-OSN-2010/2 in West Coast of India (EC)

The PP made a presentation. The matter was deferred for internal discussion.

20.7.4 Exploration Drilling of 103 Wells in 30 Blocks of Western On-Shore Basin, of M/s ONGCL, District Mehsana & Patan, Gujarat – Further consideration for EC

Project proposal was considered in the 15th Expert Appraisal Committee (Industry) meeting held on 29th to 30th January, 2014, wherein the Committee had desired following information:

1 Full compliance report on the observations made by the Regional Office to be provided.
2 Details of ground water monitoring of wells for salinity in villages along the coast within the 'potential zone of impact'.

Project proponent vide letter dated 3rd June, 2014 has submitted aforesaid information. PP informed that "the study area does not contain any coastal area". Hence monitoring of ground water salinity is not applicable to this project. Coast is minimum 300 km far from the proposed drilling of 103 wells in Mehsana and Patan Districts. The issue of monitoring of salinity was raised by EAC during presentation of project listed vide agenda item no. 15.6.2 (b) i.e. Development of Vasistha and S-1 of KG Offshore, Eastern Offshore Assest, Kakinada of ONGC. Action taken report of partly complied points mentioned in the RO report, MoEF was submitted.

After detailed deliberations, the Committee, based on the EIA-EMP Report, additional information and presentation made recommended the project for EC and suggested to stipulate following specific conditions along with other environmental conditions while considering for accord of environmental clearance:

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

ii. 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.

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

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

v. 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 shall be provided as per CPCB guidelines.

vi. Total water requirement shall not exceed $20m^3$/day and prior permission shall be obtained from the concerned agency.

vii. 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.

viii. 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 Bhubaneswar.

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

x. 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 authorized recyclers.

xi. 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.

xii. 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.

xiii. 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.

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 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.

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

xvii. 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.

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 shall be carried out as per the prevailing Acts and Rules.

xx. 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.

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

xxii. Oil content in the drill cuttings shall be monitored by some Authorized agency and report shall be sent to the Ministry's Regional Office at Bhopal.

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

xxiv. 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.

xxv. 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.

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

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

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

20.7.5 Development drilling of 108 wells laying of 4"and 8" oil and gas flow lines & establishment of 03 numbers of EPS, 01 number of WHI, 03 Nos of Water injection Facilities and 03 Nos. of ETP of M/s ONGC in operation areas of Cambay Sub Asset, in Gujarat (TOR)

The project proponent gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken along with the draft Term of References for the preparation of EIA-EMP. All the Offshore and Onshore oil and gas exploration, development and production projects are listed at S.N. 1(b) under Category 'A' and appraised at the Central level.

M/s ONGC has proposed for development drilling of 108 wells laying of 4"and 8" oil and gas flow lines & establishment of 03 numbers of EPS, 01 number of WHI, 03 Nos. of Water injection Facilities and 03 Nos. of ETP in operation areas of Cambay Sub Asset, in Gujarat. First discovery of oil was made in ONGC at Lunej in Cambay project in 1958, and since then exploration, development and production activities are continued.No. of fields/block**is** 9 of ML/NELP. Total no. of wells drilled is 223. Present oil production is 450 tpd. The proposed development well to be drilled is 108of average depth of 700- 1600mts. Block area is 702 KM^2. Estimated reserves are 4.42 MMT.Cost of project is Rs. 1100 crore. By drilling of 108 development wells there will be addition of about 1300 MT oil generation per day.

Following facilities will be developed:

i) EPS & ETP for Vadtal wells # 1,3 & 5
ii) EPS & ETP at Anklav #7
iii) WHI for Nadiad #1
iv) Flow line of development wells for Vadtal field
v) Water injection line for Vadtal field as per requirement
Trunk line from Vadtal to Kathana for transportation of crude oil

(Crude oil from Nadiad #1 will be transported through tanker to GGS Kathana.

As per the proposal 1125 KL/well inclusive of 45 KL/well for domestic use shall be sourced from nearby ONGC installation and/ or Narmada canal which is passing near by site. In the event of utilization of any water sources necessary prior permission shall be taken from CGWA.Produced water will be injected to sub surface below 1000 meter after treatment at ETP as per GPCB norms.Drill cutting (DC) will be separated from water based mud (WBM) and washed properly and unusable drilling fluids (DF) will be disposed off in well designed lined pit with impervious liner for solar drying. Disposal of drill cuttings and drill mud will be carried out in accordance with the GSR 546 (E) dated 30th August, 2005. Used oil will be sent to authorized recyclers.

The Committee after deliberations prescribed TORs as given in Annexure 4. The Committee further recommended that district-wise Public Hearing shall be conducted in the 3 districts of Kheda, Anand and Baroda.

20.7.6 Development Drilling of Four Wells of M/s ONGC in Borholla Oil and Gasfields, Jorhat, Assam (TOR)

The proposal was already considered in the 17th meeting of the reconstituted expert appraisal committee (EAC) (Industry) (I) held on 18th-19thMarch 2014 and hence was not taken up.

TUESDAY, 24th JUNE 2014

20.8 Consideration of EC cases

20.8.1 Expansion of Synthetic Organic Chemicals Manufacturing Plant of M/s Prasol Chemicals Ltd. at Sy. Nos. 8, 13,15, 16, 25, 75, Village Honad, Tehsil Khalapur, DistrictRaigad, Maharashtra (EC)

The project proponent and their consultant (Aditya Environmental Services PVt.LTd. and validated by M/s Eco-Chem Sales & Services) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per Draft Terms of References (TORs) awarded during the 2nd Meeting of the Expert Appraisal Committee (Industry) held during 29th-30th October 2012 for preparation of EIA-EMP report. All the Synthetic Organic Chemical Units located outside industrial area/estate are listed at S.N. 5(f) under Category 'A' and appraised at the Central level.

M/s Prasol Chemicals Ltd. has proposed for expansion of Synthetic Organic Chemicals Manufacturing Plant of M/s Prasol Chemicals Ltd. at Sy. Nos. 8, 13,15, 16, 25, 75, Village Honad, Tehsil Khalapur, District Raigad, Maharashtra. Total plot area is 64773 m^2 of which greenbelt will be developed in 8295 m^2. Cost of project is Rs. 22 crores. It is reported that no national park/wildlife sanctuary is located within 10 Km distance.

The following products will be manufactured:

S.N.	Existing Product	Quantity (*) (MTPA)
1	Di-Acetone Alcohol	9000
2	Nonyl Phenol	720
	By-product: Di- Nonyl Phenol	60

3	Phosphorous PentyaSulphide	6000
4	Phosphorous Acid-Food Grade	600
5	Phosphorous Pentoxide	624
6	Dil. Phosphorous Acid	500(#)
7	Isophorone	3600

Proposed Products

S.N.	Proposed Product	Quantity (*) (MTPA)
1	Phenol	20000
2	Acetone	12000
	By-products:Alpha methyl styrene Acetphenone	1500 800
3	Zinc Di-organo Dithiophosphate (ZDDP)	1500
4	Mesityl Oxide	750
5	Hydrogenated Compounds (Hexylene Glycol/TrimethylCyclohexanol/TrimethylCyclohexanone)	1800

PP informed that Prasol Chemical Ltd. was established in 1992 with total capital investment less than Rs. 1 Crore. According to EIA Notification 1994, Synthetic Organic Chemicals manufacturing activity was not covered for grant of EC. After notification of 2006, this is first expansion proposal of the company. Copy of CTE dated 24.03.1995 issued by MPCB to M/s Prachy Poly Products Ltd. is submitted. Copy of CTO dated 30.12.2011 issued by MPCB to M/s Prasol Chemicals Ltd.

Ambient air quality monitoring was carried out at 6 locations during November, 2012 to February, 2013 and submitted data indicates as PM10 (17.2–89.9 ug/m^3), SO_2 (4.6 – 24.47ug/m3) and NO_x (4.51-26.8ug/m3). Predicted value of ground level concentration due to proposed expansion is PM_{10} (2.09), SO2 (3.67ug/m3) and Nox (1.32ug/m3). The resultant concentrations are within the NAAQS. Cyclone followed by bagfilter will be provided to coal fired boiler to control particulate emissions. Good quality of burner and low sulphur containing Indonesian Coal will be used for NOx and SO2 emissions control. H_2S gas from ZDDP will be scrubbed with two stage alkali scrubber using 20% NaOH and traces will be burnt in flare. Cumene from vent gas will be recovered in three stage condenser. Water requirement from ground water source and tanker supply will be increased from 128 m^3/day to 480 m^3/day after expansion. Effluent will be segregated into low organic effluent (Low TDS/COD) stream and high organic effluent stream (TDS/ COD) effluent stream. Low TDS/COD effluent stream will be treated in ETP. High organic effluent stream (TDS/ COD) effluent stream will be concentrated in Triple effect evaporator. Condensate will be reused in cooling. No effluent will be discharged outside the plant premises and Zero effluent discharge concept. Tar from phenol /acetone and residue from ZDDP will be sent to authorized recycler/re-processor. ETP sludge will be sent to TSDF. Used oil will be sent to MPCB authorized recyclers. Fly ash will be sent to brick manufacturers.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the Maharashtra Pollution Control Board on 16th May, 2013 under the Chairmanship of District Collector. The issues raised during Public Hearing were regarding local employment, development of schools, CSR, disposal of hazardous waste, greenbelt etc. Public Hearing issues have satisfactorily been responded by the project proponent and incorporated in the final EIA-EMP report.

After detailed deliberations, the Committee on the basis of the additional information provided and presentation made 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) Scrubber shall be provided to control process emissions. The scrubbing media shall be sent to effluent treatment plant (ETP) for treatment. Efficiency of scrubber shall be monitored regularly and maintained properly. At no time, the emission levels shall go beyond the prescribed standards.

ii) Fugitive emissions in the work zone environment, product, raw materials storage area etc. shall be regularly monitored. The emissions shall conform to the limits imposed by TNPCB. Odour management plan shall be implemented.

iii) Total fresh water requirement from ground water source and tanker supply shall not exceed 480m^3/day and prior permission shall be obtained from the CGWA/SGWA.

iv) Effluent shall be segregated into low organic effluent (Low TDS/COD) stream and high organic effluent stream (TDS/ COD) effluent stream. Low TDS/COD effluent stream shall be treated in ETP. High organic effluent stream (TDS/ COD) effluent stream shall be concentrated in triple effect evaporator. Condensate will be reused in cooling. No effluent will be discharged outside the plant premises and Zero effluent discharge concept.

v) The company shall obtain Authorization for collection, storage and disposal of hazardous waste under the Hazardous Waste (Management, Handling and Trans-Boundary Movement) Rules, 2008 and amended as on date for management of Hazardous wastes and prior permission from TNPCB shall be obtained for disposal of solid / hazardous waste in the TSDF. Measures shall be taken for fire-fighting facilities in case of emergency.

vi) Fly ash shall be stored separately as per CPCB guidelines so that it shall not adversely affect the air quality, becoming air borne by wind or water regime during rainy season by flowing along with the storm water. Direct exposure of workers to fly ash & dust shall be avoided.

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

viii) All the issues raised during the Public Hearing/consultation meeting held on 16th May, 2013shall be satisfactorily implemented and adequate budget provision shall be made accordingly.

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

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

20.8.2 Manufacturing of Phenol Formaldehyde Resin (135 MTPM) and Malamine Urea Formaldehyde Resin (34 MTPM) of M/s Russaka Ply India Ltd. at Sy. No. 258/1, Village NaniChirai, TalukaBhachau, District Kutch, Gujarat (EC)

The project proponent and their consultant (BhagwatiEnviro Care 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 17th Meeting of the Expert Appraisal Committee (Industry) held during 22nd-23rd December, 2010 for preparation of EIA-EMP report. Extension of Validity of TOR was recommended in the 10th REAC (I) meeting held during 29th-31st July, 2013. All the Synthetic Organic Chemical Units located outside industrial area/estate are listed at S.N. 5(f) under Category 'A' and appraised at the Central level.

M/s Russaka Ply India Ltd. has proposed for setting up of Manufacturing unit for Phenol Formaldehyde Resin (135 MTPM) and Malamine Urea Formaldehyde Resin (34 MTPM) at Sy. No. 258/1, village NaniChirai, TalukaBhachau, District Kutch, Gujarat. At present, PP is engaged in manufacturing of Veneers (99 Lakh sq.m./month) and sawn

timber (90 CBM/month) and now, want to expand by installation of manufacturing units for P.F. Resin and MUF Resin at the existing plant. A copy of 'Consent to Operate' order no. AWH-38540 dated 31st August, 2010 accorded by GPCB is submitted. PP has applied for the 'Consolidate Consent and Authority' (CCA) for the renewal for the existing plant to GPCB vide letter dated 1st June, 2010 and was accorded vide letter dated 30th May, 2005. Total plot area is 12,295.75 sq.m.of which greenbelt will be developed in 2800m^2. It is reported that no national park, reserved forests or wildlife habitats as well as site of archeological significance or ecological importance fall within 10 km distance.

The details of existing and proposed products to be manufactured are given below:

S.N.	Product	Existing	Proposed	Total after expansion
1	Veneers	99 Lakh Sq.m./month	-	99 Lakh Sq.m./month
2	Sawn Timber	90 CBM/Month	-	90 CBM/Month
3	Phenol Formaldehyde Resin	--	135 MT/Month	135 MT/Month
4	Melamine Urea Formaldehyde Resign	--	34 MT/Month	34 MT/Month

Ambient air quality monitoring was carried out at 6 locations during October – December, 2010 and submitted data indicates as PM10 (58.2–102.7ug/m^3), SO_2 (3.7– 27.8ug/m3) and NOx (4.3-30.1ug/m3). Predicted value of ground level concentration due to proposed project is SPM (3.7 ug/m3),SO2 (6.47ug/m3) and NOx (2.34ug/m3). The resultant concentrations are within the NAAQS except PM_{10}.Multicyclone followed by dust collector and bagfilter will be provided to coal fired thermic fluid heater. Methanol vapour gas will be passed into water scrubber.

Fresh water requirement from Gujarat Water Supply and Sewerage Board will increase from 0.8m3/day to 5.3m3/day after expansion. Industrial effluent generation will increase from 0.6m^3/day to 2.9m3/day after expansion. 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 21stJanuary, 2014. The issues were raised regarding likely impact on nearby lake and water stream, local employment, provision of fire brigade etc. The Committee noted that issues have satisfactorily been responded by the project proponent and incorporated in the final EIA-EMP report and there were too many inconsistencies and discrepancies in the environmental data presented in the EIA-EMP Report.

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

i. Bag filter along with stack of adequate height should be provided to coal fired thermic fluid heater to control particulate emission.

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

iii. Wet scrubber should be provided to control process emissions. Methanol should be recovered from the process area.

iv. Total ground water requirement should not exceed 5.3 m3/dayand prior permission should be obtained from Competent Authority.

v. 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.

vi. 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.

vii. 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.

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

ix. All the commitments made to the public during the Public Hearing/Public Consultation meeting held on 21st January, 2014 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.

x. 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.

20.8.3 Manufacturing of Polyamide Resin (500 MT/M) of M/s Bright Resin Pvt. Ltd. at Plot/Survey No. 109/4, Village Ravi Industrial Estate, Bileshwarpura, Tehsil Kalol, District Gandhinagar, Gujarat(EC)

The project proponent and their consultant (BhagwatiEnviro Care 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 9th Meeting of the Expert Appraisal Committee (Industry) held during 10th-11thJune, 2013 for preparation of EIA-EMP report. All the Synthetic Organic Chemical Units located outside industrial area/estate are listed at S.N. 5(f) under Category 'A' and appraised at the Central level.

M/s Bright Resin Pvt. Ltd. has proposed for setting up of Manufacturing Unit of Polyamide Resin (500 MT/M) at Plot/Survey No. 109/4, Village Ravi Industrial Estate, Bileshwarpura, Tehsil Kalol, District Gandhinagar, Gujarat. Total plot area is 1695 m^2 of which greenbelt will be developed in 400 m^2. Cost of project is Rs. 2.02 crores. It is reported no national park, Wildlife sanctuary, reserve forest is located within 10 Km distance.

The following products will be manufactured:

S.N.	Product	Quantity (MTPM)
1	Polyamide Resin Non reactive polyamide resin Reactive Polyamide Resin	 40 10
2	Epoxy Resin (75% Solid)	50
3	Alkyd Resin Alkyd Long Oil Resin	 50

	Alkyd Medium Oil Resin Alkyd Short Oil Resin	50 50
4	Amino Resin Melamine Formaldehyde Urea Formaldehyde Resin	 80 20
5	Polyester Resin	150
	Total	**500**

Ambient air quality monitoring was carried out at 6 locations during March – May, 2013 and submitted data indicates as PM_{10} (63–74.23ug/m^3), $PM_{2.5}$ (27.70–38.62 ug/m^3), SO_x (10.58– 16.38ug/m3) and NOx (11.77-38.96ug/m3). Predicted value of ground level concentration due to proposed project is SPM (3.4ug/m3), SO2 (5.96ug/m3) and NOx (2.12ug/m3). The resultant concentrations are within the NAAQS. Multicyclone followed by dust collector and bagfilter will be provided to coal fired thermic fluid heaters.

Fresh water requirement from GIDC will be 2.5m^3/day. Industrial effluent generation will be 2.35m^3/day. Industrial effluent will be treated in ETP followed by evaporator. Condensate from evaporator will be recycled/reused in process. No effluents will be discharged outside the plant premises. ETP sludge will be sent to TSDF. 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 4th February, 2014. The issues were raised regarding likely local employment, disposal of hazardous waste, zero effluent discharge concept, source of water supply etc. The Committee noted that issues have satisfactorily been responded by the project proponent and incorporated in the final EIA-EMP report.

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

i. Bag filter along with stack of adequate height should be provided to coal fired thermic fluid heater to control particulate emission.

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

iii. Total water requirement from GIDC water supply should not exceed 2.5 m^3/dayand prior permission should be obtained from Competent Authority.

iv. Industrial effluent will be treated in ETP followed by evaporation to achieve zero discharge. Water quality of treated effluent shall meet the norms prescribed by CPCB/SPCB.

v. 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.

vi. 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.

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

viii. All the commitments made to the public during the Public Hearing/Public Consultation meeting held on 4th February, 2014should 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.

ix. 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.

20.8.4 Proposed Laminate sheet project of M/s Apurva Laminates Pvt. Ltd. at Dist. Rajkot, Gujarat (EC)

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

20.8.5 Manufacturing of Urea Formaldehyde Glue/Urea Melamine Formaldehyde Glue (16.3 MTPD) of **M/s Darshan Boardlam Ltd.** at Block No. 1037, RS No. 770/2, Village HariyalTalukaMandvi, District Surat, Gujarat (EC)

The project proponent and their consultant (Precitech Laboratories 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 2nd Meeting of the Expert Appraisal Committee (Industry) held during 29th – 31th October, 2012 for preparation of EIA-EMP report. All the Synthetic Organic Chemical Units located outside industrial area/estate are listed at S.N. 5(f) under Category 'A' and appraised at the Central level.

M/s Darshan Boardlam Ltd. has proposed for setting up of Manufacturing of Urea Formaldehyde Glue/Urea Melamine Formaldehyde Glue (16.3 MTPD) at Block No. 1037, RS No. 770/2, Village Hariyal Taluka Mandvi, District Surat, Gujarat. Total plot area is 3500 m^2. Existing unit is engaged in manufacturing of particle block. Total plot area is 22359 m^2 and no additional land will be procured. Project cost is Rs. 1.765 Crores. River Tapi is flowing at a distance of 7.5 Km. It is reported that no national park/wildlife sanctuary is located within 10 km distance. Following products will be manufactured:

S.N.	Product	Capacity (in MTPD)
1	Urea Formaldehyde Glue/Urea Melamine Formaldehyde Glue	16.3

Ambient air quality monitoring was carried out at 6 locations during October – December, 2010 and submitted data indicates as PM_{10} (65–93ug/m^3), SO_2 (18– 27 ug/m3) and NOx (18-29ug/m3). Predicted value of ground level concentration due to proposed project is PM_{10} (1.86ug/m3), SO2 (15.26ug/m3) and NOx (1.12ug/m3). The resultant concentrations are within the NAAQS. Multicyclone followed by scrubber will be provided to coal/lignite fired thermic fluid heaters.

Fresh water requirement from ground water source will be increased from 7m^3/day to 19.5m^3/day after expansion. Industrial effluent generation will be 2.3m^3/day after expansion. Industrial effluent will be evaporated. No effluent will be discharged outside the plant premises. ETP sludge will be sent to TSDF. Used oil/spent oil will be sent to registered recyclers. DG set (125 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 27th March, 2014. The issues were raised regarding local employment, CSR etc. The Committee noted that issues have satisfactorily been responded by the project proponent and incorporated in the final EIA-EMP report.

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

i. Bag filter along with stack of adequate height should be provided to coal/lignite fired thermic fluid heater to control particulate emission.

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

iii. Total ground water requirement should not exceed 19.5 m3/dayand prior permission should be obtained from Competent Authority.

iv. Industrial effluent will be treated in ETP followed by evaporation to achieve zero discharge. Water quality of treated effluent shall meet the norms prescribed by CPCB/SPCB.

v. 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.

vi. 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.

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

viii. All the commitments made to the public during the Public Hearing/Public Consultation meeting held on 27th March, 2014 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.

ix. 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.

20.8.6 Resin Manufacturing Unit of M/s Galaxy Mica Pvt. Ltd.at Plot No.344, Village Ujediya, TalukaTalod, District Sabarkantha, Gujarat. (EC)

The project proponent 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 10thMeeting of the Expert Appraisal Committee (Industry) held during 29th-31st July, 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 Galaxy Mica Pvt. Ltd. has proposed for setting up of Resin Manufacturing Unit at Plot No.344, village Ujediya, TalukaTalod, District Sabarkantha, Gujarat.Total plot area is 26517.28 m2. The cost of project is Rs. 8 crores.

The following products will be manufactured:

S.N.	Product	Quantity
1	Laminated Sheet /Electrical Insulation Board	2,50,000 Nos./Month
2	P. F. Resin	750 MTPM
3	MF Resin	250 MTPM
4	UF Resin	100 MTPM

Additionally, the PP informed the Committee that ambient air quality monitoring was carried out at 7 locations during October-December, 2013 and submitted baseline data indicates that ranges of concentrations of PM10 (63 µg/m3 to 78 µg/m3), PM2.5 (34.1 µg/m3 to 57.2 µg/m3), SOx (8.1 µg/m3 to 13.9ug/m3) and NOx (16.1 µg/m3 to 22.9 µg/m3) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.65 µg/$m^3$and 0.026 µg/m3 and 0.127 µg/m3 with respect to SPM, SO2 and NOx. The resultant concentrations are within the NAAQS.

Multicyclone Dust collector will be provided to coal fired boiler& Thermic fluid heater to control particulate emissions. DG set (250 KVA) will be installed. Scrubber will be provided to Dryer to control methanol. Fresh water requirement from ground water source will be 33.87m^3/day. Industrial effluent generation will be 11.28 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. Fly ash will be sent to brick manufacturers.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the Gujarat Pollution Control Board on 11th March, 2014. The issues were raised regarding adverse effect of flue gas, ETP, CSR etc. The Committee noted that issues have satisfactorily been responded by the project proponent and incorporated in the final EIA-EMP report.

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

(i) 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 33.87m^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 11th March, 2014 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.

20.8.7 Expansion of Bagaase based Particle Board Plant and Manufcature of Resin of M/s DarshanBoardlam Pvt. Ltd. at Block No. 1037, R.S 779/1, vill. Haruyat, Mandvi Road, TalukaMandvi, Dist. Surat, Gujarat (EC)

The proposal has been discussed at item no. 20.8.

20.8.8 Proposed expansion of Sugar unit from 2500 TCD to 5000 TCD of M/s Kranti Sahakari Sakhar Karkhana Ltd. at Dist. Sangli, Maharashtra (EC)

It was noted that EIA-EMP report has been prepared by Green Circle Inc., who is not an accredited QCI Consultant for sugar and CPP Sector. It was also pointed out that the report quality is poor and requires to be prepared by specialized professional. Further, the report does not contain point-wise TOR compliance. In view of this, the Committee recommended that the EIA-EMP report prepared/validated by QCI accredited Consultant for 'A' Category project should be submitted.

The proposal was deferred until the revised EIA-EMP report is submitted. The above information shall be provided with the uploading of minutes on the website.

20.8.9 Grainbased Distillery (120 KLPD) along with Cogeneration Power Plant (5 MW) of M/s Globus Spirits Ltd. at Village Olda, Post Baharogora, DistrictSinghbhum, Jharkhand (EC)

The project proponents and their consultant (M/s J M EnvironetPvt. 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 3rdMeeting of the Expert Appraisal Committee (Industry) held during 3rd-5th December, 2012 for 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 Globus Spirit Ltd have proposed for setting up of Grain based Distillery (120 KLPD)along with Co-generation power plant (5 MW) at Village Baharogora, District Singhbhoom (East), Jharkhand. Total plant area is 17.66 acres of which greenbelt will be developed in 5.6 acres. Subarnarekha river is flowing at a distance of 6.5 Km. Gopalbandh tank, Deb Nala, DulungNala and PochakhaliNala is flowing at a distance of 3.0 km, 5.5 km, 6.5 km and 7.0 km respectively. Dudhkunri RF, Lodhanbani RF and Goplballabhpur Char RF is located within 10 km distance. It is

reported that no national parks/wildlife sanctuaries/bio-sphere reserve are located within 10 Km. State boundaries of Jharkhand and West Bengal is located at 2.5 Km. Total project cost is Rs. 160 crores. Rs. 15 crores and Rs. 1 crore are earmarked towards capital cost and recurring cost per annum for pollution control measures. Plant will be operated for 330 days in a year.

Ambient air quality monitoring was carried out at 7 locations December, 2012 –February, 2013 and submitted data indicates as PM10 (54–76 ug/m3), PM2.5 (17.0–32 ug/m3), SO2 (6.5 – 10.1 ug/m3) and NOx (13.1-20.3 ug/m3). Predicted value of ground level concentration due to proposed expansion is PM10 (0.56 ug/m3), SO_2 (5.43 ug/m3) and NO2 (0.12 ug/m3). The resultant concentrations are within the NAAQS. ESP will be provided to coal/rice husk fired boiler to control particulate emissions. Fresh water requirement from ground water source will be 1650 m^3/day. Spentwash generation will be 990 m3/day.Spent wash from grain based will be treated through decanter and concentrated in multi-effect evaporator (MEE) to form Distiller's Wet Grains with Soluble (DWGS). DWGS will be dried in the dryer to form Distiller's Dry Grains with Soluble (DDGS). Process condensate will be cooled and collected into a neutralization tank with sufficient residence time. After neutralization and filtration (UF + RO) this process condensate will be recycled into process use. Treated effluent will be recycled/reused in process. No effluent will be discharged outside the plant premises. Flyash will be sent to brick manufacturing unit.Yeast sludge will be added to the wet cake. DDGS will be sent to cattle feed.

The Committee deliberated upon the issues raised during the Public Hearing/Public Consultation meeting conducted by the Jharkhand State Pollution Control Board on 10th February, 2014. The issues raised were regarding impact on agriculture, pollution control measures, health related issues etc. All the issues have been satisfactorily responded by the project proponent and incorporated in the final EIA-EMP report.
After detailed deliberations, the Committee recommended the project for environmental clearance and stipulated the following specific conditions along with other environmental conditions while considering for accord of environmental clearance:

i. Distillery unit shall be based on Grain based only and no Molasses based distillery unit shall be operated. The unit will use bagasse if available.

ii. ESPalong with stack of adequate height shall be provided to bagasse /coal fired boiler to control particulate emission within 50 mg/Nm^3.

iii. Pucca approach road to project site shall be constructed prior to commencing construction activity of the main distillery so as to avoid fugitive emissions.

iv. Total fresh water requirement from ground water sourceshall not exceed 1200 m^3/day for distillery and cogeneration unit and prior permission shall be obtained from the CGWA/SGWA.

v. Water consumption shall be reduced by adopting 3 R's (reduce, reuse and recycle) concept in the process.

vi. Spent wash generation shall not exceed 6 Kl/Kl of alcohol. Spent wash shall be treated through decanter and concentrated in multi-effect evaporator (MEE) to form DWGS. DWGS will be sent to dryer to form DDGS. Spentlees, effluent from utilities and cogeneration unit shall be treated in effluent treatment plant (ETP) and water quality of treated effluent shall meet the norms prescribed by CPCB/SPCB and recycle/reuse.

vii. No effluent from distillery and co-generation power plant shall be discharged outside the premises and Zero discharge shall be adopted.

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

ix. No storage of wet cake shall be done at site. An additional dryer shall be installed so that at any time wet cake is not sold then wet cake shall be converted into dry cake by operating additional dryer.

x. Coal storage shall be done in such a way that it does not get air borne or fly around due to wind.

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

xii. Occupational health surveillance programme shall be undertaken as regular exercise for all the employees. The first aid facilities in the occupational health centre shall be strengthened and the regular medical test records of each employee shall be maintained separately.

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

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

xv. All the commitment made regarding issues raised during the Public Hearing/consultation meeting held on 10th February, 2014 shall be satisfactorily implemented.

xvi. At least 5 % of the total cost of the project shall be earmarked towards the Enterprise social responsibility based on Public Hearing issues and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office at Bhopal. Implementation of such program shall be ensured accordingly in a time bound manner.

xvii. The Company shall submit within three months their policy towards Corporate Environment Responsibility which shall 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.

20.8.10 Bulk Drug Manufacturing Unit of **M/s Varun Laboratories Pvt. Ltd.** at Plot No. 20, (Sy. No. 44 (Part), 48/2 (Part) & 49/2 (Part), APIIC Industrial Park, Village Annarugudem, Tehsil Tallada, District Khammam, Andhra Pradesh(**EC**)

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 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 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 Varun Laboratories Pvt. Ltd. has proposed for setting up of Bulk Drug Manufacturing Unit at Plot No. 20, (Sy. No. 44 (Part), 48/2 (Part) & 49/2 (Part), APIIC Industrial Park, Village Annarugudem, Tehsil Tallada, District

Khammam, Andhra Pradesh. Total plot area is 2.274 acres of which greenbelt will be developed in 0.77 acre. Cost of project is Rs. 600 lakhs. Water Bodies such as NasarapurVagu (2.7Km), Vagu (4.5Km), LalBahadur Canal (4Km) and Wyra Lake (5.2KM) are located within 10 Km distance. Reserve Forest (i.e. Kannegiri (4.8 Km) and Gobbagurti (8.6 Km) are located within 10Km distance. It is reported that no national park/wildlife sanctuary is located within 10 Km distance.

The following products will be manufactured:

S.N.	Product	Capacity (TPA)
1	4-Cams	13.20
2	Hydroxyl Carbazole	12.00
3	Carbazole	13.20
4	3-Acetyl Pyridine	13.44
5	Pentaprazole	16.80
6	4-Chloro benzhydryl amine	18.00
7	Carvedilol	12.00
8	Guaiacol	72.00
9	KetrolacTromethamine	18.00
10	Bis(2-Chloro Ethyl) Amine Hydrochloride	24.00
11	Etoricoxib-1	12.00
12	Cis Bromo Benzoate	30.72
13	Pregabalin	14.40
14	MetoFormin	120.00
15	Methyl Sulphonyl methane	23.52
16	Meldurms Acid	10.80
17	Metho carbamol	48.00
18	Guafenesin	180.00
19	Fenofibrate	18.00
Maximum production on various combinations (i.e. any 4 products at a time)		**420**

Ambient air quality monitoring has been carried out at 8 locations during April- June, 2013 and the data submitted indicated: PM_{10} (18 to 44µg/m^3), $PM_{2.5}$ (8 to 24µg/m^3), SO_2 (4 to 13µg/m^3) and NO_x (5 to 16µg/m^3). AAQ study for point source emissions indicates that the maximum incremental GLCs would be 2.7µg/m^3, 5.5µg/$m^3$and 2.4µg/m^3 with respect to PM_{10}, SO_2 and NO_x respectively.

Multi cyclone dust collector followed by bagfilter and stack of 30 m height will be provided to 3 and 1.5 TPH coal fired boilers and adequate stack height will be provided to HSD fired thermic fluid heater for controlling the particulate matter and effective dispersion of flue gases. Scrubber will be provided to control process emissions viz. HCl and SO_2. DG set height will be calculated as per CPCB formula. Total water requirement will be 142.5m3/day. Out of which fresh water requirement from ground water source will be 100m^3/day and remaining quantity 42.5m3/day will be sourced from treated effluent. Total effluent generation will be 43.9m^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.

The Committee deliberated upon the issues raised during the Public Hearing/Public Consultation meeting conducted by the Andhra Pradesh Pollution Control Board on 27thNovember, 2013. The issues raised were regarding pollution control measures, local employment, process emissions etc.

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

i. Multi-cyclone followed by bag filter shall be provided to the coal fired boiler to control particulate emissions within permissible limit. The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/APPCB guidelines.

ii. Scrubber shall be provided to control process emissions. The scrubbing media shall be sent to effluent treatment plant (ETP) for treatment. Efficiency of scrubber shall be monitored regularly and maintained properly. At no time, the emission levels shall go beyond the prescribed standards.

iii. Fugitive emissions in the work zone environment, product, raw materials storage area etc. shall be regularly monitored. The emissions shall conform to the limits imposed by APPCB. Odour management plan shall be implemented.

iv. Total fresh water requirement from ground water source shall not exceed 100m3/day and prior permission shall be obtained from the CGWA/SGWA.

v. Trade effluent shall be segregated into High COD/TDS and Low COD/TDS effluent streams. High TDS/COD shall be passed through stripper followed by MEE and ATFD (agitated thin film drier). Low TDS effluent stream shall be treated in ETP and then passed through RO system. Condensate and recover water will be recycled/reused within factory premises. 'Zero' effluent discharge shall be adopted and no effluent will be discharged outside the premises.

vi. All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.

vii. As proposed, process organic residue and spent carbon shall be sent to cement industries. ETP sludge, process inorganic & evaporation salt shall be disposed off to the TSDF. The ash from boiler shall be sold to brick manufacturers/cement industry.

viii. The company shall obtain Authorization for collection, storage and disposal of hazardous waste under the Hazardous Waste (Management, Handling and Trans-Boundary Movement) Rules, 2008 and amended as on date for management of Hazardous wastes and prior permission from APPCB shall be obtained for disposal of solid / hazardous waste in the TSDF. Measures shall be taken for fire-fighting facilities in case of emergency.

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

x. Solvent management shall be as follows :
- Reactor shall be connected to chilled brine condenser system
- Reactor and solvent handling pump shall have mechanical seals to prevent leakages.
- The condensers shall be provided with sufficient HTA and residence time so as to achieve more than 95% recovery
- Solvents shall be stored in a separate space specified with all safety measures.
- Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done.

xi. Entire plant where solvents are used shall be flame proof. The solvent storage tanks shall be provided with breather valve to prevent losses.

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

xiii. All the issues raised during the Public Hearing/consultation meeting held on 27thNovember, 2013shall be satisfactorily implemented and adequate budget provision shall be made accordingly.

xiv. At least 5 % of the total cost of the project shall be earmarked towards the Enterprise Social Commitment based on Public Hearing issues and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office at Bangalore. Implementation of such program shall be ensured accordingly in a time bound manner.

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

20.9 Further Consideration Cases

20.9.1 Expansion of Resin Manufacturing unit of **M/s Touch Laminates Pvt. Ltd.** in Dist. Sabarkantha, Gujarat (EC)

Project proposal was considered in the 16th Expert Appraisal Committee (Industry) meeting held during 20th-21st February 2014 and the Committee had sought the following information:

i. Recheck ambient air quality data by conducting fresh one month monitoring.
ii. Recheck water quality data by conducting fresh monitoring.

The project proponent vide letter dated 24th May 2014 has submitted above mentioned addl. information.

After detailed deliberations, the Committee based on the EIA-EMP report, addl. information and presentation made recommended the project for EC and stipulated the following specific conditions along with other environmental conditions while considering accord of environmental clearance:

i) Regular monitoring of Volatile Organic Compounds (VOCs) shall be carried out.

ii) Bagfilter along with stack of adequate height shall be provided to coal fired boiler& Thermic fluid heater to control particulate emission.

iii) Fugitive emissions in the work zone environment, product, raw materials storage area etc. shall be regularly monitored.

iv) Total ground water requirement shall not exceed 25.33m^3/day and prior permission shall be obtained from the Central Ground Water Authority/State Ground Water Board.

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

vi) The company shall obtain Authorization for collection, storage and disposal of hazardous waste under the Hazardous Waste (Management, Handling and Trans-Boundary Movement) Rules, 2008 and amended as on date for management of Hazardous wastes and prior permission from GPCB shall be obtained for disposal of solid / hazardous waste in the TSDF. Measures shall be taken for fire fighting facilities in case of emergency.

vii) As proposed, green belt over 33 % of the total project area shall be developed within plant premises with at least 10 meter wide green belt on all sides along the periphery of the project area, in downward

direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the DFO.

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

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

x) At least 5 % of the total cost of the project shall be earmarked towards the corporate social responsibility and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office at Bhopal. Implementation of such program shall be ensured accordingly in a time bound manner.

20.9.2 Proposed to Manufacture Decorative Board in New Proposed unit of M/s Jason Dekor Pvt. Ltd. in Dist. Vadodara, Gujarat (EC)

Project proposal was considered in the 16th Expert Appraisal Committee (Industry) meeting held during 20th-21st February 2014 and the Committee desired following information:

i. Recheck ambient air quality data by conducting fresh one month monitoring.
ii. Recheck water quality data by conducting fresh monitoring.

Project proponent vide letter dated 24th May 2014 has submitted above mentioned addl. information.

After detailed deliberations, the Committee based on the EIA-EMP report, addl. information and presentation made recommended the project for EC and stipulated the following specific conditions along with other environmental conditions while considering accord of environmental clearance:

i) Regular monitoring of Volatile Organic Compounds (VOCs) shall be carried out.

ii) Bagfilter along with stack of adequate height shall be provided to coal fired boiler& Thermic fluid heater to control particulate emission.

iii) Fugitive emissions in the work zone environment, product, raw materials storage area etc. shall be regularly monitored.

iv) Total ground water requirement shall not exceed 29.67m^3/day and prior permission shall be obtained from the Central Ground Water Authority/State Ground Water Board.

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

vi) The company shall obtain Authorization for collection, storage and disposal of hazardous waste under the Hazardous Waste (Management, Handling and Trans-Boundary Movement) Rules, 2008 and amended as on date for management of Hazardous wastes and prior permission from GPCB shall be obtained for disposal of solid / hazardous waste in the TSDF. Measures shall be taken for fire fighting facilities in case of emergency.

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

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

ix) All the commitments made to the public during the Public Hearing/Public Consultation meeting shall be satisfactorily implemented and a separate budget for implementing the same shall be allocated and information submitted to the Ministry's Regional Office at Bhopal.

x) At least 5 % of the total cost of the project shall be earmarked towards the corporate social responsibility and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office at Bhopal. Implementation of such program shall be ensured accordingly in a time bound manner.

20.9.3 Proposed Chemical Plant of M/s Shiva Pharmachem Ltd. at Block No. 447-460 & 502, at village Karakhadi, Taluka Padra, Dist. Vadodara, Gujarat (EC)

The proposal was considered in the 17th Expert Appraisal Committee (Industry) meeting held during 18th-19th March 2014 wherein the Committee had sought the following 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.

Project proponent vide letter dated 5th June 2014 has submitted the aforesaid details, which was considered.

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) Bagfiltershall be provided to coal fired boiler (1.5 TPH) and fluid heater. Dust collector and bagfiltershall be provided to the dryer and mills. Scrubber shall be provided to process emissions.
(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 ground water source shall not exceed 153.25m3/dayand prior permission shall be obtained from the CGWA/SGWA.
(iv) Industrial effluent generation shall not exceed 56.5m3/day. Industrial effluent shall be treated in ETP followed by RO.
(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) The company should obtain Authorization for collection, storage and disposal of hazardous waste under the Hazardous Waste (Management, Handling and Trans-Boundary Movement) Rules, 2008 and amended as on date for management of Hazardous wastes and prior permission from GPCB should be obtained for disposal of solid / hazardous waste in the TSDF. Measures should be taken for fire-fighting facilities in case of emergency.

(viii) All the commitments made to the public during the Public Hearing/Public Consultation meeting held on 30th August, 2013shall be satisfactorily implemented and a separate budget for implementing the same shall be allocated and information submitted to the Ministry's Regional Office at Bhopal.

(ix) 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.

20.9.4 Expansion of Molasses based Distillery (80 to 160 KLPD) along with CPP (14MW) of M/s Lokmangal Agro Industries Ltd. at Gat No. 573, 574 and 575, Subhashnagar, BibiDarphal, Taluka North Solapur, District Solapur, Maharashtra (EC)

The project authorities and their consultant (M/s Mantras Green Resources 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 33rd Meeting of the Expert Appraisal Committee (Industry) held during 21st- 22nd March, 2012 for 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 Lokmangal Agro Industries Ltd. has proposed for expansion of Molasses based Distillery (80 to 160 KLPD) along with CPP (14MW) at Gat No. 573, 574 and 575, Subhashnagar, BibiDarphal, Taluka North Solapur, District Solapur, Maharashtra. Sina River is flowing at a distance of 4.7Km. It is reported that no wildlife sanctuary/national park/biosphere is located within 10 km distance. Distillery will be operated for 270 days and power plant will be operated for 330 days respectively. Cost of expansion project is Rs. 64.27 crores. As per EIA report, total land available is 50ha. However, during presentation, PP informed that existing area is 56 acres and additional area is 6 acres. Total land after expansion is 62 acres.

Ambient air quality monitoring has been carried out at 6 locations during March- May, 2012 and the data submitted indicated: PM_{10} (26.8 to 58.4µg/m^3), $PM_{2.5}$ (12.5 to 29.1µg/m^3), SO_2 (11.9 to 19.2µg/m^3) and NO_x (11.5 to 22.7µg/m^3). AAQ study for point source emissions indicates that the maximum incremental GLCs would be 10.23 µg/m^3, 4.99µg/$m^3$and 4.5µg/m^3 with respect to PM_{10}, SO_2 and NO_x respectively.

ESP will be provided to bagasse fired boiler (30 TPH) to control particulate emissions. Fresh water requirement from Sina River will be increased from 2155 m^3/day to 3176 m^3/day after expansion. Spentwash generation will be increased from 800m^3/day to 1440m^3/day after expansion. Spent wash will be treated in bio-digester followed by MEE. Concentrated treated spent wash will be bio-composted to achieve zero-discharge. Bio-gas after H2S removal will be fed to gas engine (4 MW). Greenbelt will be provided to 33 % of land. Boiler capacity will be upgraded from 26 TPH to 30 TPH steam generation. Existing power supply from steam operated turbine is 3 MW. Power

generation from steam operated turbine will be increased to 6 MW. Total power generation from gas engine will be 8 MW. Therefore, total power generation after expansion will be 14 MW.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the Maharashtra Pollution Control Board on 3rd October, 2012 under the Chairmanship of District Collector. The issues raised during Public Hearing were regarding discharge of effluent from the existing distillery, smell nuisance, impact on agriculture, leachates during rainy season etc.

The Committee also discussed the compliance status report dated 28thNovember, 2013 on the conditions stipulated in the existing environmental clearance, which were monitored by the Ministry's regional office, Bhopal. It is reported that unit was commissioned with latest technology of continuous fermentation and multi pressure distillation. Quantity of spent wash generation was found within the limit. Spent wash after bio-methanation was composted and leachates were collected and treated /reused in compost. ESP has been installed and stack height of 65 m has been provided. RO has also reported partly complied points i.e. piezometer for ground water monitoring are not installed. Adequate greenbelt is not developed. Six monthly compliance report has not been submitted.

After deliberations, the Committee desired following additional information:

1 To prepare spent wash treatment scheme by considering concentration cum incineration/biomethantion followed by incineration.
2 Permission for river water drawl from Competent Authority.
3 Composting unit of the existing project should be as per CPCB Guidelines.

The proposal was deferred until the desired information is submitted and site visit is conducted to check on the existing project and H_2S removal and recovery of Suplhur from bio-gas. The above information shall be provided with the uploading of minutes on the website.

20.9.5 Exploratory Development and Testing of Hydrocarbons (Onshore 22 wells) of M/s Oil India Ltd. in Naharkatia-Deohal-Bagapani-Nagajan field, Dist. Tinsukia & Dibrugarh, Assam (EC)

The project proponent and their consultant (Senes Consultants India Pvt. Ltd.) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per Draft Terms of References (TORs) awarded during the 28th Meeting of the Expert Appraisal Committee (Industry) held during 20th-21st October, 2011 for preparation of EIA-EMP report. All 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. Public hearing was exempted as per 7 (ii) of EIA Notification, 2006.

M/s Oil India Ltd. has proposed for Exploratory, Development and Testing of Hydrocarbons (Onshore 22 wells) in Naharkatia-Deohal-Bagapani-Nagajan field, Distt. Tinsukia&Dibrugarh, Assam. OIL has already drilled 25 no. of wells in the block besides additional proposing to drill 22 wells within the NDBN field.It was also noted that Naharkatia-Deohal-Bagapani-Nagjan field is very old and we have already drillind 25 wells since 1995 i.e. much prior to EIa Notification, 2006. Further, PP clarified that all wells are exploratory and testing in nature. For development wells, separate application will be submitted. As per EIA –EMP report, only well 22 is located within the Upper Dihing R F Forest Clearance for the well site will be obtained prior to site construction. 19 wells are located within 10 km distance of wildlife sanctuary. PP informed that OIL will prepare site specific Wildlife Management plan and get the same approved from Chief Wildlife Warden. DhingPatkai and Borajan Segment of Bherjan-Borajan-Padumoni Sanctuary are located within 10 km distance.

Following are location of the proposed wells:

Location	Latitude (Northing)	Laongitude (Easting)
Well No-1	27^0 23'11"	95^0 17'48"
Well No-2	27^0 22'00"	95^0 15'14"
Well No-3	27^0 21'25"	95^0 14'50"
Well No-4	27^0 22'50"	95^0 14'27"
Well No-5	27^0 25'17"	95^0 15'17"
Well No-6	27^0 26'38"	95^0 18'09"
Well No-7	27^0 24'41"	95^0 18'14"
Well No-8	27^0 24'52"	95^0 19'21"
Well No-9	27^0 25'50"	95^0 18'21"
Well No-10	27^0 24'16"	95^0 20'05"
Well No-11	27^0 23'14"	95^0 19'07"
Well No-12	27^0 23'18"	95^0 23'25"
Well No-13	27^0 24'18"	95^0 23'28"
Well No-14	27^0 20'58"	95^0 22'19"
Well No-15	27^0 21'55"	95^0 24'24"
Well No-16	27^0 22'52"	95^0 27'37"
Well No-17	27^0 24'30"	95^0 25'43"
Well No-18	27^0 24'06"	95^0 28'30"
Well No-19	27^0 21'38"	$95^0$32'05"
Well No-20	27^0 24'29"	95^0 30'47"
Well No-21	27^0 24'21"	95^0 35'36"
Well No-22	27^0 27'21"	95^0 32'20"

Additionally, PP informed the Committee that ambient air quality monitoring was carried out at 8 locations during October, 2012-January, 2013 and submitted baseline data indicate ranges of concentrations of PM_{10} (6 µg/m3 to 96 µg/m3), SO2 (less than 4 µg/m3) and Nox (9 µg/m3 to 37 µg/m3) respectively. Levels of AAQMS are within the NAAQS. Estimated land requirement per drill site is 2.2 ha.

Flare stack will be provided. Adequate stack will be provided to DG set to disperse air emissions. Total water requirement from ground water source will be 40 m3/day. Effluent will be treated in effluent treatment plant (ETP) comprising equalization, chemical coagulation, flocculation and clarification by settling and residual unusable mud will be collected in lined pits and solar evaporated. Drill cutting (DC) will be separated from water based mud (WBM) and washed properly and unusable drilling fluids (DF) will be disposed off in well designed lined pit with impervious liner for solar drying. Disposal of drill cuttings and drill mud will be carried out in accordance with the GSR 546 (E) dated 30th August, 2005. Used oil will be sent to authorized recyclers. The abandoned drill sites will be restored back to its near original condition.

After detailed deliberations, the Committee based on the documents furnished and presentation made 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 present EC is for Exploratory Drilling only. In case Development drilling is to be done in future, prior environmental clearance must be obtained from the Ministry.

ii. Environmental clearance is subject to their obtaining prior clearance from the Standing Committee of the National Board for Wildlife regarding DhingPatkai and Borajan Segment of Bherjan-Borajan-Padumoni Sanctuary.

iii. Forest clearance shall be obtained for Well No 22.

iv. 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.

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

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

vii. 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 shall be provided as per CPCB guidelines.

viii. Total water requirement shall not exceed 22 m^3/day and prior permission shall be obtained from the concerned agency.

ix. 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.

x. 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 Bhubaneswar.

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

xii. 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 authorized recyclers.

xiii. 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.

xiv. 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.

xv. 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.

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

xvii. 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.

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

xix. 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.

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

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

xxii. 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.

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

xxiv. Oil content in the drill cuttings shall be monitored by some Authorized agency and report shall be sent to the Ministry's Regional Office at Bhubaneswar.

xxv. Under Enterprise Social Commitment (ESC), 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.

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

20.9.6 Capacity Augmentation of existing DAP/NPK Plant of M/s Gujarat State Fertilizers & Chemicals Ltd, Jamnagar, Gujarat (EC)

Project proposal was considered in the 18th Expert Appraisal Committee (Industry) meeting held during 28th-30th April 2014 wherein the Committee had sought the following information:

1. Copy of CRZ clearance/SCZMA to be submitted.
2. GSFC to furnish authenticated map by the Wildlife warden indicating plant location, jetty location, marine national park with marking of within /outside area of Eco sensitive zone.
3. Status of WL Clearance from PCCF (WL) on location of jetty and pipelines from Marine National park.
4. Detailed need based Enterprise Social Responsibility Plan for 5 % of project cost.
5. Health analysis data to be submitted.
6. Details of existing greenbelt and proposed action plant to be submitted.
7. Details of Marine Research funding to be submitted.
8. Google image showing mangrove plantation.
9. Confirm whether old ammonia tanks are updated as per latest technology.
10. Whether NIO study Marine Research has been carried out.
11. Employment status of land losers for the existing project to be submitted.
12. Details of Arsenic storage to be submitted.
13. Plan for online monitoring for ammonia analyzer.
14. Safety issues regarding transportation of ammonia via pipelines.

The project proponent vide letter dated 6th June 2014 had submitted above mentioned addl. Information, which were considered. The Committee deliberated upon the SCZMA recommendation letter no. ENV-10-2013-93-E dated 12th February, 2014 regarding CRZ clearance for dredging in front of existing jetty, laying of additional pipeline, and additional ammonia and phosphoric acid tanks in the existing Sikka Shore Terminal. A copy of letter

no. No WLP/32/B/1041-42 of 2014-2015 dated 6th May, 2014 by Chief Wildlife Warden, Gujarat State has enclosing map authenticated by Dy. CF, Marine National Park, Jamnagar and Counter signed by Chief Conservator of Forests has been submitted.

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) All the conditions stipulated in environmental clearance letter dated 31st July, 1990, and letter no. J-11011/26/2001-IA (II) dated 11th December, 2001 accorded for the existing projects shall be implemented.

ii) CRZ clearance shall be obtained.

iii) Ammonia bearing fumes from the reactor and granulator of the Complex Fertilizer shall be scrubbed. Scrubbing shall have interlocking system with main plant.

iv) The gaseous emissions (SO_2, Nox, NH_3, HC) and particulate matter from various process units shall conform to the norms prescribed by the CPCB/SPCB from time to time. At no time, the emission levels shall go beyond the prescribed standards. In the event of failure of any pollution control system adopted by the unit, the respective unit shall not be restarted until the control measures are rectified to achieve the desired efficiency. Stack emissions shall be monitored regularly.

v) Cyclone followed by bag filter shall be provided to raw material handling area. Venturi scrubber and cyclone shall be provided in the process plant.

vi) Total fresh water requirement from Gujarat Water Infrastructure Ltd./ ground water source shall not exceed 2160 m3/day. PP shall construct additional rain water recharge pond with capacity of 15,000 m^3.

vii) Efforts shall be made to make use of rain water harvested. If needed, capacity of the reservoir shall be enhanced to meet the maximum water requirement. Only balance water requirement shall be met from other sources. As proposed, Check dams with water storage capacity 3780 m3 and 4500 m3 respectively shall be created near plant premises.

viii) As proposed, industrial effluent shall be treated in effluent treatment plant (ETP) and recycled back in the process.

ix) No effluent shall be discharged outside the premises and 'Zero' discharge shall be ensured.

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

xi) All the commitments made to the public during Public Hearing/public consultation meeting held on 26th February, 2014 shall be satisfactorily implemented and adequate budget provision shall be made accordingly.

xii) At least 5 % of the total cost of the project shall be earmarked towards the Enterprise Social Commitment (ESC) based on Public Hearing issues and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office at Bhopal. Implementation of such program shall be ensured accordingly in a time bound manner.

xiii) A comprehensive Green belt development plan shall be developed in at least 33 % area in and around the plant as per the CPCB guidelines to mitigate the effects of air emissions in consultation with local DFO.

20.9.7 Manufacturing of Organic/Inorganic & Specialty Chemicals at Jhagadia, GIDC, District Bharuch, Gujarat by M/s Panoli Intermediates (India) Pvt. Limited (Unit-VI) (EC)

The proposal was considered in the 4th Expert Appraisal Committee (Industry) meeting held during 8-9th January, 2013 and the Committee desired following information:

i. Proper hood along with suction facility and scrubbing arrangement shall be provided in the chlorine storage area. Alarm for chlorine leakage if any in the liquid chlorine storage area shall be provided along with automatic start of the scrubbing system.
ii. Connection of the chilled water supply to the condenser.
iii. Medical examination report of all operational staff including Phenol in the urine.
iv. Benzene monitoring results in relevant process vents and in the work environment.
v. It is also suggested that on receipt of the information along with photographs and results of the monitoring from the project proponent and confirmation by the GPCB, similar conditions to be stipulated in the environmental clearance for the new projects.

PP vide letter date 6th January, 2014 had submitted addl. Information. However, confirmation by the GPCB regarding action taken on the EAC's observation is yet to be received. The proposal was deferred until confirmation by the GPCB was submitted. The aforesaid information shall be provided by the PP with the uploading of minutes on the website.

20.10 Consideration of TORs

20.10.1 Proposal for 5000 TCD Molasses/Sugarcane Juice/Sugar beet based Distillery of M/s Vitthal Refined Sugars Ltd. at Solapur, Maharashtra (TOR)

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

20.10.2 Petrochemical based Processing Plant of M/s Deepak Fertilizer and Petrochemicals Corporation Ltd. at village Thenkeyekkar, Tluka Mangalore, District Daksina Kannada, Karnataka (TOR)

The project authorities along with their consultant (M/s Kadam Environmental Consultants) 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 Petrochemical based processing located outside the notified industrial area/estate are listed at S.N. 5(e) under category 'A' and appraised by Expert Appraisal Committee (I).

M/s Deepak Fertilizer and Petrochemicals Corporation Ltd. has proposed for setting up of Petrochemical based Processing Plant at Village Thenkeyekkar, Tluka Mangalore, District Daksina Kannada, Karnataka. Total plot area for plant is 6,68,015.2 m^2 and pipeline corridor area is 39,780.6m^2. Cost of project is Rs. 1798 crores. Arabian Sea is located at a distance of 7.5 Km. Nalini River is flowing at a distance of 0.4 Km.

The following products will be manufactured:

S.N.	Products	Quantity
1	Cumene	4,00,000 TPA
2	Phenol	3,00,000 TPA
3	Acetone	1,90,000 TPA
4	Iso Propyl Alcohol(IPA)	70,000 TPA
5	Alpha Methyl Styrene (AMS)	10,000 TPA
6	Acetophenone (AP)	10,000 TPA
7	Captive Power Plant	20 MW

Pipeline proposed for transportation of Benzene from OMPL; Propylene from MRPL; Hydrogen from OMPL/MRPL; Fuel oil/LNG from MRPL/GAIL; water from Netravati River or MSEZ; Effluent discharge to CETP or Deep Sea; Additional lines (if required). Flare stack and emergency vent scrubber along with stack height of 30 m will be provided. Spent air from oxidizer along with stack height of 25 m will be provided. Adequate air pollution control device along with stack height will be provided to FO/LNG/Indonesian coal/petcoke fired CPP. Adequate stack height will be provided to FO/LNG fired boiler. DG sets (2x1000 KVA) will be provided. Total water requirement will be 7721 m3/day and source of water supply will be Netravati River or MSEZ. Wastewater generation will be 4051 m3/day and treated in ETP followed by RO. Permeate of RO will be recycled for cooling tower make up. Part of treated water will be sent to CETP/Deep sea for disposal. ETP sludge will be sent to TSDF. Used catalyst and oil will be sent to authorized recyclers/re-processors. Fly ash will be disposed off to cement /brick manufacturers.

After deliberations, the Committee recommended the proposal for TOR subject to the following specific conditions read with TORs for Synthetic Organics at **Annexure-5.**

(i) VOC Monitoring (separately benzene).

(ii) Odour control plan.

(iii) CRZ clearance is required for effluent pipeline.

(iv) Details about location of project vis-à-vis proximity to Western Ghats.

(v) Public Hearing.

20.10.3 New Molasses based Distillery of 30 KLPD of M/s Udagiri Sugar and Power Ltd. at Village Bamani, TalukaKhanapur, DistirctSangli, Maharashtra. (TOR)

The project proponents along with their consultant (M/s Vasantdada Sugar Institute, Department of Environment Science) 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 Udagiri Sugar and Power Ltd. has proposed for setting up of molasses based Distillery of 30 KLPD at Village Bamani, TalukaKhanapur, DistirctSangli, Maharashtra. Plot area is 10.5 acres of which greenbelt will be developed in 2.5 acres. Cost of project is Rs. 37.779 Crore of which Rs. 11.334 Crore has been earmarked towards capital cost for environment management. No wildlife sanctuary, reserve forest is located within 10 Km distance. It was reported that Sagareshwar wildlife sanctuary for deer is located at a distance of 26 Km. ESP will be provided to the bagasse and biogas fired boiler to control particulate emissions. Water requirement from Pare minor reservoir will be 500 m3/day. Spentwash will be treated in bio-methanation followed by evaporation system and bio-composting. No effluent will be discharged outside the plant premises and Zero effluent discharge condition will be maintain. Yeast sludge, ash and ETP sludge will be sent to bio-composting. The Committee suggested PP for spent wash storage capacity for 5 days and it should be stored in a tank to avoid ground water contamination. PP should explore the feasibility and submit the status in the EIA report.

The Committee after deliberations recommended the proposal for TOR as given in **Annexure-6**.

20.10.4 Proposed 45 KLPD distillery project of M/s Green Power Sugars Ltd. at Dist. Satara, Maharashtra (TOR)

The Committee decided that the PP submit revised form 1 for integrated sugar complex including Sugar (5000 TCD) along with CPP (28 MW) to assess cumulative impact of the proposed plant.

20.10.5 Grain based Distillery (60 KLPD) along with Cogeneration Power Plant (3 MW) of M/s Mangalam Distillers & Bottling Industries at Village Pacharia (Changsari), District Kamrup, Assam. (TOR)

The project proponents along with their consultant (M/s Vasantdada Sugar Institute, Department of Environment Science) 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 Manglam Distillers & Bottling Industries has proposed for setting up of Grain based Distillery (60 KLPD) along with Cogeneration Power Plant (3 MW) at Village Pacharia (Changsari), District Kamrup, Assam. Cost of project is Rs. 86 crores. Out of which, Rs. 10 crores and Rs. 0.8 crores are earmarked towards capital cost and recurring cost per annum for environmental management. A Fund of Rs. 2,58 crores has been earmarked for CSR. River Brahmputra flows at a distance of 5 Km. It is reported that Deepor Bheel Bird Sanctuary is located at a distance of 12 Km. Total plot area is 12 acre. Bagfilter /ESP along with stack height of 45m will be provided to coal/rice husk fired boiler (30 TPH). DG set (900 KVA) will be installed as standby arrangement. Water requirement from ground water source will be 662m3/day. Power requirement will be 3 MW, which will be sourced from co-generation power plant. Slops spent wash from the distillation plant will be treated using decanter and integrated steam tube dryer. The permeate will be reused in process after undergoing neutralization and polishing treatment. No effluent will be discharged outside the plant premises. DDGS/DWGS will be dried and used as cattle feed. Fly ash will be sold to cement plant or brick manufacturers.

The Committee recommended the proposal for TOR as given in **Annexure-6** read with additional TOR given below:

i. Availability of grain to be included.
ii. P.H. to be conducted.

The Committee further recommended that the PP submit a Revised Form-1 for Malt Spirit, for grant of TOR.

20.10.6 Grain based Distillery (120 KLPD) along with Cogeneration Power Plant (3.3 MW) of M/s Globus Spirit Ltd. at Panagarh Industrial Park, Panagarh, District Burdwan, 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 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 Globus Spirit Ltd. has proposed for setting up of Grain based Distillery (120 KLPD) along with Cogeneration Power Plant (3.3 MW) at Panagarh Industrial Park, Panagarh, District Burdwan, West Bengal. Total plot area is 18.81 acres of which greenbelt will be developed in 6.2 acres. Cost of project is Rs. 110 Crore of which Rs. 15 Crore and 1.5 crore are earmarked towards capital cost and recurring cost per annum for environmental management. Total no. of working days are 330 days per annum. ESP/bagfilteralong with stack height of 52 m will be provided to coal/rice husk fired boiler (35 TPH). DG set (1x1250 KVA + 750 KVA) will be installed. Total fresh water requirement from ground water source will be 1205 m^3/day. Grain slops (spentwash - 750 MTPD) will be taken through centrifuge decanter for separation of suspended solids separated as wet cake (DWGS). Thin slops from decanter centrifuge are partly recycled back to process and partly taken to thin slops evaporation plant for concentration of remaining solids to form a syrup. This syrup is also mixed into the wet cake coming out of centrifuge and forms

part of cattle feed. DWGS drier will be installed. The process condensate will be cooled and collected into neutralization tank with sufficient residence time. After neutralization and filtration (UF + RO) this process condensate will be recycled into process use. No effluent will be discharge outside the plant premises. Ash will be utilized for landfilling, brick manufacturing and gardening unit. DDGS will be used as cattlefeed. The Yeast sludge will be sent to the sludge drying beds.

The Committee recommended the proposal for TOR as given in **Annexure-6** read with additional TOR given below:

i. Availability of grain to be included.
ii. P.H. to be conducted.

20.10.7 Molasses based Distillery (100 KLPD) along with CPP (5 MW) of M/s Hermes Distillery Pvt. Ltd. at Village Yadravi, TalukuRaibag, District Belagavi, Karnataka. (TOR)

The project proponents along with their consultant (M/s B.S. Envi-Tech Pvt. Ltd., 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 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 Hermes Distillery Pvt. Ltd. has proposed for setting up of Molasses based Distillery (100 KLPD) along with CPP (5 MW) at Village Yadravi, TalukuRaibag, District Belagavi, Karnataka. Total plot area is 17.84 acres. Cost of project is Rs. 153 crores. Waterbodies such as Krishna River (3.7 Km), SavaliHalla (7.4 Km) and ArkaHalla (2.7 Km) are located within 10 Km distance. Reserve Forests such as Saundatti RF and Sivaji Park RF (1.9 KM) are located within 10 Km distance. No wildlife sanctuaries, national parks, elephant/tiger reserves, eco-sensitive zone are located within 10 km distance. Fresh water requirement from Krishna River will be 1313m3/day. Spentwash generation will be 800m3/day. Spentwash will be concentrated in MEE and concentrated spent wash will be incinerated in the incineration boiler. Spentless generation will be 234m3/day and treated through Reverse Osmosis and reused back in the unit for dilution of molasses (170m3/day). Rejects from RO (64m3/day) will be sent to sugar ETP for further treatment. No effluent will be discharged outside the plant premises. Yeast sludge will be sold as cattle feed. Flyash will be sold to brick manufacturers /cement plants. During presentation, PP informed that they have started construction of bottling plant unit, which non EC activity. The Committee advised them to stop construction and resume construction work after obtaining EC as bottling unit is located within the same premises and study should cover cumulative impact.

The Committee recommended the proposal for TOR as given in **Annexure-6** read with additional TOR given below:

i. Availability of grain to be included.
ii. P.H. to be conducted.

20.10.8 Proposal for 30 MW bagasses Based Cogeneration Power Project of M/s Ryatar Sahakari Sakkare Karkhane Niyamit (RSSKN) at Dist. Bagalkot, Karnataka (TOR)

Since proposal involves setting up of a cogeneration power plant only, the Committee recommended that the proposal may be transferred to EAC (T) for appraisal.

20.10.9 Molasses based Distillery Unit (60 KLPD) along with Cogeneration Power Plant (3 MW) of Shri Balaji Sugars and Chemicals Pvt. Ltd. at Village Yeregal, TalukaMuddebihal, District Bijapur, Karnataka (TOR)

The project proponents 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.

Shri Balaji Sugars and Chemicals Pvt. Ltd. has proposed for setting up of Molasses based Distillery Unit (60 KLPD) along with Cogeneration Power Plant (3 MW) at Village Yeregal, TalukaMuddebihal, District Bijapur, Karnataka. Total plot area is 10 acres of which greenbelt will be developed in 3.3 acres. Total cost of project is Rs. 60 Crore. Krishna River is flowing at a distance of 3.5 Kms. No eco-sensitive areas such as national park/wildlife sanctuary/biosphere reserves/reserve forests exist within 10 km distance. ESP will be provided to coal and concentrated spentwash fired boiler. Fresh water requirement from Krishna River is 510m3/day. Spent wash generation will be 390m3/day during the production of alcohol. Spentlees generation will be 120 m^3/day and MEE condensate generation will be 240m3/day. The condensate after treatment will be used for make up water for cooling tower. Spentlees and MEE condensate will be treated through biological process based ETP followed by tertiary treatment. Misc. Effluent stream will be treated in ETP comprising aeration followed by secondary clarification. No effluents will be discharged outside the plant premises. Flyash will be sent to bricks manufacturing. Greenbelt will be developed in 33 % of plant area.

The Committee recommended the proposal for TOR as given in **Annexure-6** read with additional TOR given below:

i. Availability of grain to be included.
ii. P.H. to be conducted.

20.10.10 Molasses based Distillery Unit (50 KLPD) of M/s New Phaltan sugar Works Distilleries Division Ltd. at Gut No. 477, 478/1, 494 & 567 Village Sakharwadi, TalukaPhaltan, District Satara, Maharashtra (TOR)

The project proponents along with their consultant (M/s SD Engineering Services 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 New Phaltan sugar Works Distilleries Division Ltd. has proposed for setting up of Molasses based Distillery Unit (50 KLPD) at Gut No. 477, 478/1, 494 & 567 Village Sakharwadi, TalukaPhaltan, District Satara, Maharashtra. Plot area is 15.72 acres. Cost of project is Rs. 45 Crore of which Rs. 7.5 Crore has been earmarked towards capital cost for EMP. It is reported that no national park/sanctuary is located within 10 Km distance. Nearest River id Nira River located at 10 km distance. No. Of working days for distillery is 270 days.

The following products will be manufactured :

S.N.	Product	Maximum Quantity (KLPD)
1	Alcohol (ENA/RS/AA)	50

The total water requirement from existing dam will be 381m3/day. Spent was generation will be 545m3/day. Spent wash will be treated in bio-digester followed by MEE. Concentrated treated spent wash will be sent for bio-composting. Condensate, boiler blow down, cooling water blow down, spentlees will be treated in UF followed by

RO. Treated effluent will be recycled in process. No effluent will be discharged outside the plant premises. DG set (500 KVA) will be installed.

The Committee recommended the proposal for TOR as given in **Annexure-6** read with additional TOR given below:

i. Information to be provided existing sugar unit including status of EC
ii. P.H. to be conducted.

20.10.11 Bulk Drugs and Intermediates as well as Chemicals Manufacturing Unit of M/s Challa Chlorides Pvt. Ltd. located at Plot No. F-2, MIDC Chincholi, Taluka Mohol, District Solapur, Maharashtra (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' and appraised at State level. However, applicability of general condition i.e. Great Indian Bustard Sanctuary located within 10 Km distance, proposal treated as Category 'A' and appraised at Central level.

M/s Challa Chlorides Pvt. Ltd. has proposed for setting up of bulk drugs and Intermediates as well as Chemicals Manufacturing Unit located at Plot No. F-2, MIDC Chincholi, TalukaMohol, District Solapur, Maharashtra.Total plot area is 16000m^2 of which greenbelt will be developed in 2798m^2. Cost of project is Rs. 4.5 crores. The Great Indian Bustard Sanctuary is located within 10 Km distance.

The following products will be manufactured:

S.N.	Products	Quantity (in MTPM)
1	Cyclohexanyl Acetonitrile	19.5
2	ChloroEthoxy Ethyl Acetate	2.6
3	Sodium Iodide	50.02
4	Potassium Iodide	50.02
5	Calcium Iodide	12.9
6	Metformin Hydrochloride	50.4
7	Cyanoacetamide	2.03
8	Malonic Acid	3.1
9	Mono Methyl Urea	5.6
10	Lumefantrine	3
11	Methycyano Acetate	10.4
12	Ethylcyano Acetate	11.7
13	Ethylcyano Acetate	36.15
14	Aluminium Chloride	21
15	Cyano Acetic Acid	23.6
16	Ibuprofen	15
17	Orpha-hydrine Citrate	8.5
18	2 Amino 3, 5 DibromoBenzaldehyde (ADBA)	11.2
19	Ambraxol Hydrochloride	10.75
20	Doxofylline	10.5

S.N.	By-products	Quantity (MTPM)
1	Sodium Chloride	7.5 MT
2	Aluminum Hydroxide	96 M^3
3	Potassium Bromide	5 MT
4	Sodium Sulphate	6.51 MT

5	Chromic Sulphate	0.48 MT
6	Sulphuric Acid	34.8 M^3
7	Hydrochloride Acid	16.5 M^3
8	Ammonium Bromide	0.5 MT
9	Manganese Dioxide	11.4 MT

Bagfilter along with stack height (30 m) will be provided to boiler. Scrubber will be provided to control process emissions. Fresh water requirement from MIDC water supply will be 44m3/day. Industrial effluent generation will be 24m3/day and treated in ETP followed by MEE. MEE salt will be sent to TSDF. Boiler ash will be sent to brick manufacturing unit.

The Committee recommended the proposal for TOR as prescribed in **Annexure-5** and additional TORs given below:

(i) Clearance from NBWL to be obtained.
(ii) P.H. to be conducted.
(iii) Zero discharge.

20.10.12 Bulk Drugs Manufacturing Unit of M/s Mahalaxmi Industries at Sy. No. 10/B, IDA Goddapotharam, Mandal Jinnaram, District Medak, Andhra Pradesh (TOR)

The project authorities and their Consultant (PridhviEnvirotech (P) Ltd., Hyderabad) 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 at Central level.

M/s Mahalaxmi Industries has proposed for setting up of Bulk Drugs Manufacturing Unit at Sy. No. 10/B, IDA Goddapotharam, Mandal Jinnaram, District Medak, Andhra Pradesh. The said unit was orginaaly in the name of Hyderabad Agro Input (P) Ltd. and was established in 1993 and is manufacturing pesticide formulation. Mahalaxmi Industries purchased this unit in the year 2010. There is no EC issued earlier as the unit was pesticide formulation unit & established prior to 1994 notification. The unit is located within 10 Km radius of Bollaram area, which was identified as Critically Polluted stretch by CPCB. PP informed that the existing pesticide formulation has been stopped and old will be removed. Total plot area is 1.0 acres of which greenbelt will be developed in 0.33 acres. Cost of project is Rs. 5.1 Crore of which Rs. 1 Crore has been earmarked for environmental management plan. Rainfed tank at Gaddapotharam is located 0.35 Km from the site. Kistaipalli RF is located at a distance of 0.58 Kms. There are 19 reserve forests located in 10 Km study area.

The following products will be manufactured :

S.N.	Product	Production Capacity (in TPM)	Product Description Drug/Intermediate/Multipurpose chemicals
1	Guaifenesin	30.0	Drug
2	Tramadol Hydrochloride	30.0	Drug
3	2-Nitro-1-(Methylamino)-1-(Methylthio) Ethane (NMSM)	15.0	Drug Intermediate
4	Diethyl-D(-) Tartrate	15.0	Drug Intermediate
5	Diethyl 1,3 – Acetone Dicarboxylic Acid	15.0	Drug Intermediate
6	IPA HCl	15.0	Drug Intermediate
	Total	**120.0**	
	Byproduct		
1	Sulphuric Acid	309.97	

Cyclone separator along with stack height of 30 m will be provided to coal fired boiler (4 TPH). However, the Committee insisted for bagfilter instead of cyclone separator. DG set (1 x 500 KVA) will be installed. Scrubber will be provided to control process emissions. Water requirement from road tankers will be 45.5m3/day. Effluent generation will be 21.4m3/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.

The Committee recommended the proposal for TOR as prescribed in **Annexure-5** and additional TORs given below:

(i) P.H. to be conducted.
(ii) Recommendation of APPCB
(iii) Zero discharge.

20.10.13 Specialty Chemicals & Pesticide Intermediate Products Plant (600 MTPM) of M/s BenzoChem Industries Pvt.Ltd. at Plot No. Z-103/D, Phase – II, Dahej SEZ, Taluka Vagra, District Bharuch, Gujarat (TOR)

The project proponent gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken along with the draft Term of References for the preparation of EIA-EMP. All the Pesticides plants are listed at S.N. 5(b) under Category 'A' and appraised at the Central level.

M/s BenzoChem Industries Pvt. Ltd. has proposed for setting up of Specialty Chemicals & Pesticide Intermediate Products Plant at Plot No. Z-103/D, Phase – II, Dahej SEZ, TalukaVagra, District Bharuch, Gujarat. Plot area is 47,613.19m^2 of which greenbelt will be developed in 15,000 m^2. Cost of project is Rs. 45 crores. Rs. 5 crores and Rs. 25 Lakhs/annum are earmarked towards capital cost and recurring cost per annum for implementation of EMP.

The following products will be manufactured:

S.N.	Product	Proposed Quantity (MTPM)
A.	**SPECIALTY CHEMICALS & PESTICIDE INTERMEDIATES**	
1	2-Amino Benzo Nitrile	10
2	2-Amino-5-Bromo Benzo Nitrile	5.0
3	2,4,6-Trimethyl Benzaldehyde (Mesitaladehyde)/or	20
	2,4,6-Trimethyl Benzaldehyde 84% in 16% Acetone (Mesitaladehyde 84% in 16% Acetone)	
4	Indoline	20
5	2,4-Dichloro Phenyl Acetic Acid	25
6	2,4-Dichloro Phenyl Acetyl Chloride	25
7	2,4,6-Trimethyl Phenyl Acetyl Chloride	20
8	2,4-Dichloro Meta Cresol	4.0
9	Pivolonitrile (Trimethylacetonitrile)	10
10	4,4-Dihydroxy Benzophenone	25
11	2-Chloro-4,6 Dimethoxy-1,3,5-Triazine	25
12	2-Coumaranone 30% Acetic Anhydrine 70%	170
13	4-Bromo-2-Hydroxy Anisole/5-Bromo-2-Methoxy Phenol	4.0
14	5-Propioyl-2-Thiophenyl Phenyl Acetic Acid (PPP) /OR 2-Phenyl Thio-5-Propionyl phenyl Acetic Acid	2.0

15	2,3,4,5-Tertrachloro Benzyl Chloride	17
16	3,4,5 Trimethoxy Toluene	25
17	3,4,5 Trimethoxy Benzyl Chloride	2.0
18	3,4,5-Trimethoxy Benzyl Cyanide	2.0
19	3,4,5-Trimethoxy Phenyl Acetic Acid	2.0
20	3,4,5-Trimethoxy Benzoic Acid	4.0
21	3,4,5-Trimethoxy Benzaldehyde	17
22	4,4-Dimethoxy-2-Butanone	17
23	R-2-(2,4-Dichlorophenoxy) Propionic Acid	40
24	Para Methyl Benzaldehyde / 4-Methyl Benzaldehyde	25
25	2-5 Dimethyl Phenyl Acetyl Chloride	25
26	2-Amino-2-Phenyl Butyric Acid	4.0
27	1-(2,6 Dichloro Phenyl)-2-Indolinone	4.0
28	2-(3-Benzoyl phenyl)-Propio nitrile /Ketoprofen Nitrile	8.0
29	N-Methyl-1-Naphtahlene Methyl Amine Acetate	2.0
30	N-Methyl-1-Naphtahlene Methyl Amine Base	2.0
31	ParaChloro Phenyl Ethyl Amine / 2-(4-Chloro-Phenyl)-Ethylamine	5.0
32	Ortho Chloro Phenyl Ethyl Amine/2-Chloro Phenethyl Amine	5.0
33	2-Demethylamino-2 Phenyl Butanol /2- (N,N-Dimethylamino)-2-Phenyl-1-Butanol	4.0
34	Methyl-2-Dimethyalmino-2-Phenyl butyarate/2-(N,N-Dimethyl amino)-2-Phenyl-2-Butyrate	4.0
35	2-Phenyl Butyric Acid	4.0
36	5-Chloro-2-HydroxyBenzo Phenone	5.0
37	5-(1-Carboxy Ethyl)-2-(Phenylthio)phenyl Acetic Avid (DIACID)	2.0
38	N-Methyl 1-Napthalene Methyl Amine Hydrochloride	5.0
39	7-Methoxy 1 Tetralone	5.0
Total		**600**

S.N.	**By-products**	**Proposed Quantity (MTPM)**
1	HCL(30%)	126
2	h2so4 (70%)	50
3	Liqour Ammonia (24%)	45
4	HBr	70
5	NaBr	76
6	Phosphuric Acid	60
7	Copper Sulphate	80
8	Sodium Chloride	80
9	Sodium Sulphate	60
10	Sodium Acetate	5
11	Sodium Sulfite	30
12	Potassium Chloride	5
13	Potassium Carbonate	12
14	Ammonium Sulphate	4

ESP along with stack will be provided to coal/briquette fired boiler (6 TPH). Stack height of 25 m will be provided to gas fired thermic fluid heater (2 Nos.). Scrubber will be provided to control process emissions viz. HCl, SO_2 and HBr. Fresh water requirement from GIDC water supply will be 154m^3/day. Effluent generation will be 106m^3/day and treated in ETP followed by MEE. Treated effluent will be discharged into GIDC drain. Power requirement will be 1500 KVA and sourced from DGVCL. DG set (1x500 KVA) will be installed. ETP sludge and MEE salt will be sent to TSDF. REesidue from distillation will be sent to Co-processing in Cement industries or sent to nearest Common Incineration site. Inorganics salts will be sold to the end users.

PP informed that MoEF vide letter no. 21.1084/2007-IA III dated 17th March, 2010 has issued environmental clearance to Dahez SEZ for development of Dahej SEZ at Village Dahej, TalukaVagra, District Bharuch, Gujarat. Therefore Committee recommended for public hearing exemption as per 7 (i) III Stage 3, Para (i) (b) of the EIA Notification, 2006.

The Committee recommended the proposal for TOR as prescribed in **Annexure-5** (with exception of conduct of P.H.).

20.10.14 Expansion of Resin Manufacturing Unit of **M/s Formica Laminates (India) Pvt. Ltd**. at Sy. No. 591 & 592, Kalol-Vamaj Road, Village Piyaj, TalukaKalol, District Gandhinagar, Gujarat (TOR)

The project proponent and their consultant gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken along with the draft Term of References for the preparation of EIA-EMP. All Synthetic Organic Chemicals Industry (including resin) 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 Formica Laminates (India) Pvt. Ltd.(formerly known as Well Pack Papers & Containers Ltd.) has proposed for expansion of Resin Manufacturing Unit at Sy. No. 591 & 592, Kalol-Vamaj Road, Village Piyaj, TalukaKalol, District Gandhinagar, Gujarat.MoEF vide letter no J-11011/363/2009-IA II (I) dated 24th August, 2010 has granted environmental clearance to M/s Well Pack Papers & Container Ltd for the existing unit of resin manufacturing. Total plot area is 26602m^2. Cost of project is Rs. 35 crores. Out of which Rs. 1 crores has been earmarked for environmental management system.

The following products will be manufactured :

S.N.	Product	Quantity in (MTPM)		
		Existing	Additional	Total after expansion
1	Decorative & Industrial Laminates	1,04,166 sheets/month	3,16,834sheets/ month	4,21,000 sheets/month
2	Phenol Formaldehyde Resin	205	1720	1925
3	Melamine Formaldehyde Resin	41	332	373

Cyclone followed by bagfilter will be provided to lignite/coal/wood floor/agro waste fired high pressure hot water generator /thermic fluid heater. Scrubber will be provided to the additional Dryer. Bagfilterwill be provided to additional sanding/cutting line. DG sets (1x1000 KVA+1x1250 KVA + 1x100 KVA) will be installed. Water requirement will be increased from 19.3 m3/day to 158 m3/day after expansion. Out of which fresh water requirement will be 87 m3/day and sourced from ground water. Remaining water requirement will be sourced from recycled water from RO permeate, Condensate from evaporator & treated water from STP. No effluent will be discharged outside the plant premises. ETP sludge and MEE evaporation salt will be sent to TSDF. Used oil will be sent to auhorized recycler/re-processors. Process residue will be sent to CHWIF.

The Committee after deliberations recommended the proposal for TOR as given in **Annexure-7** read with the following additional TORs:

(i) Conduct of P.H.

(ii) Certified Compliance report of the existing EC.
(iii) All the requisite documents for transfer of EC in the new company's name.

20.10.15 Expansion by adding Resin Manufacturing Unit of M/s GSM Industries Pvt. Ltd. at Sy. No./Plot No. 330, Village Bhimasar, TalukaAnjar, District Kutch, Gujarat (TOR)

The project proponent and their consultant(Precitech Laboratories 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 (including resin) 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 GSM Industries Pvt. Ltd. has proposed for expansion by adding Resin Manufacturing Unit at Sy. No./Plot No. 330, Village Bhimasar, TalukaAnjar, District Kutch, Gujarat. GSM Industries Ltd. was established in 1999 and engaged in manufacturing of face veneer, ply board and doors at its manufacturing facility located at existing project site, which are non EC project. Existing plot area is 36220 m^2. Proposed expansion is to be carried out in the existing plot itself. No additional land will be required for proposed expansion. Cost of proposed expansion project is Rs. 15.75 Lakh. Presently unit is procuring resin from market. Now, the company proposes to manufacture resins.

The following products will be manufactured:

S. N.	Name of Products	Capacity per Month		
		Existing	Proposed Additional	Total
1	Face Veneer	250 MT	--	250 MT
2	Plywood	30,000 m^2	--	30,000 m^2
3	Block Board	4,000 m^2	--	4,000 m^2
4	Flush Door	2500 m^2	--	2500 m^2
5	Flexi Ply	800 m^2	--	800 m^2
	Total	250MT & 37,300 m^2	--	250MT & 37,300 m^2

Resin Manufacturing Unit

S. N.	Name of Products	Capacity (MTPM)		
		Existing	Proposed Additional	Total
1	Phenol Formaldehyde Resin			
2	Urea Formaldehyde Resin			
3	Melamine Urea Formaldehyde Resin			
4	Melamine Formaldehyde	NIL	375	375
	Total	NIL	375	375

Dust collector along with stack height of 32 m has been provided to wood fired thermic fluid heater . DG set (2x125 KVA) have been provided. No additional utilities are installed for proposed expansion. Fresh water requirement from Gujarat Water Infrastructure Ltd. will be increased from 13.5 m3/day to 17 m3/day after expansion. In existing industrial wastewater generated is 1.00 KLD in the form of washing water which is reused in glue making. After proposed expansion, the reaction wastewater generated from the process will be retained in the product. Moreover, the washing water @ 1.0 KLD will be reused in glue making process and cooling tower blow down @ 0.2 KLPD will be reused. No effluent will be discharged outside the plant premises. Used oil will be sent to authorized recyclers. Wood ash will be given to farmers in neighboring villages for use as manure.

The Committee decided that details of conduct of AAQ Monitoring during March-May 2014 should be furnished. The Committee after deliberations recommended TOR as given in **Annexure-7** and additional TOR given below:

(i) Note on pollution control arrangement to be included in the study.

20.10.16 Expansion by adding Manufacturing of Manmade Fiber (Fully drawn Yarn-FDY, Mother Yarn & Nylon Yarn) of M/s Shubhalakshmi Polyesters Ltd. atSy. No. 179/1/2, Village Silli, Dadara& Nagar Haveli (TOR)

The project proponent and their consultant (Precitech Laboratories 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. Manmade fibres (other than Rayon) is listed at S.N. 5(d) under category 'B' and appraised at State Level. However, applicability of general condition due to project location within 10 km distance interstate boundary (Gujarat), proposal is treated as category 'A' and appraised by Expert Appraisal Committee (I).

M/s Shubhalakshmi Polyesters Ltd. has proposed for expansion by adding Manufacturing of Manmade Fibre (Fully drawn Yarn-FDY, Mother Yarn & Nylon Yarn) at Sy. No. 179/1/2, Village Silli, Dadara& Nagar Haveli.Total existing plot area is 37500 m^2. No additional land will be acquired for proposed expansion. Cost of project is Rs. 92.73 Crore. Interstate boundary is located at a distance of 10 Km.

The following products will be manufactured:

S.N.	Product	Quantity (in MTPM)		
		Existing Quantity	Additional Quantity	Total after Expansion
Existing Products				
1	Partially Oriented Yarn	18000		18000
Proposed Products				
2	Fully Drawn Yarn	-	30000	30000
3	Mother Yarn	-	1500	1500
4	Nylon Yarn	-	500	500
	Total	18000	32000	50000

Fresh water requirement will be increased from 36 m3/day to 40 m3/day after expansion. Effluent generation will be 10 m3/day and treated in ETP. Treated effluent will be recycled/reused for horticulture purpose. DG set (800 KVA) will be installed as standby arrangement. Used oil will be sent to authorized recyclers. ETP sludge will be sent to TSDF.

The Committee after deliberations recommended TOR as given in **Annexure-5**

20.10.17 Exploratory Drilling and Testing of Hydrocarbons of M/s Oil India Ltd. in Jairampur Extension PEL Block in District Changlang, Arunachal Pradesh (TOR)

The project authorities gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken along with the draft Term of References for the preparation of EIA-EMP. All the projects related to 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 Oil India Ltd. has proposed for exploratory drilling and testing of hydrocarbons in Jairampur Extension PEL Block in District Changlang, Arunachal Pradesh. Jairampur Extension PEL area falling in the Changlang District, Arunachal Pradesh and covering an area of 185 sq. Km was initially granted to Oil India Ltd (OIL) w.e.f. 01.05.1990. Out of the above 185 sq. km of the original PEL area, 154 sq. km was relinquished to facilitate demarcation of block ARP-ONN-97/1 under NELP with effect from July, 1999 and 31 sq. km remained with OIL. Cost of project is Rs. 28 Crore per well. No wildlife sanctuary/national park is located within 10 Km distance. 8.710 ha forest land is involved. PP informed that application for forest clearance is submitted to the State Government and matter is under consideration. Total 5 wells to be drilled. Out of which one no. of exploratory drilling (JRB) and four locations are appraisal (JRB-2,3,4&5). Well will be drilled upto depth of 3500m.

The following are the coordinates of the block:

Point	Latitude	Longitude
B	27^0 21'39.96"	96^0 3'20.159"
I	27^0 20'13.23"	96^0 7'21.008"
L	27^0 19'20.02"	96^0 4'33.785"
N	27^0 21'35.84"	96^0 4'13.385"
S	27^0 21'31.82"	96^0 6'50.029"
T	27^0 21'8.2014"	96^0 6'8.170"
U	27^0 23'31.73"	96^0 5'6.625"
N	27^0 22'35.84"	96^0 4'13.385"2

Flaring will be done in controlled manner through suitable flaring system to minimize impacts. Water based mud will be used in drilling. Effluent discharge from the well will be stored in HDPE lined shallow pit. Solid will be contained in HDPE lined brick in ETP and recycled/disposed. There will be no discharge of effluent in river/nallah/water bodies without treatment.

The Committee after deliberations recommended TOR as given in **Annexure- 4** and with additional TOR as given below:

(i) Forest Clearance to be obtained.

20.10.18 Exploratory Drilling & Testing of Hydrocarbons at 7 locations of M/s Oil India Ltd. in NELP VIII Block AA-ONN-2009/4 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 along with 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 Oil India Ltd. has proposed for Exploratory Drilling & Testing of Hydrocarbons at 7 locations in NELP VIII Block AA-ONN-2009/4 in Jorhat District, Assam. During presentation, PP informed that they have revised their proposal and proposed to drill 22 nos. of onshore wells. Exploration Block AA-ONN-2009/4 area is falling in the Jorhat District of Assam and covering an area of 84 sq. km and awarded to a joint consortium of Oil India Ltd. (OIL) and Oil and Natural Gas Corporation Ltd. during the NELP VIII round of biding and the PSC for the block was signed Govt. of India on 30.06.2010. Oil India Ltd. OIL is the operator in this block. Subsequently, PEL for the area (84 sq. km) was granted w.e.f. 09.12.2011. PP confirmed that no forest land is involved. Well will be drilled upto 4000 m. Cost of project is Rs. 550 Crore. Borajan segment of Bherjan-Borajan-Padumoni WLS falls within the field. Dihing-Patkai WLS (1.7 Km from South-Eastern Field boundary). 4 wells located within 10 km radius of Dihing-Patkai WLS. 13 Wells located within 10 km radius of Borajan segment of Bherjan-Borajan-Padumoni WLS. Application for SC-NBWL approval has been submitted vide letter dated 29.05.2013. Only one of the 22 proposed wells is located on the edge of forest area. Gibbon WL Sanctuary is located within 10km of project site. Land requirement will be 2.2 ha

per well. Power requirement will be met from DG set (125 kVA + 1000 kVA + 200 kVA). Water requirement from ground water source will be 10 KL during construction and 40 KLD/well during operation.

The Committee after deliberations recommended TOR as given in **Annexure-4** in addition to the following TOR:

(i) NBWL clearance shall be obtained for project within 10km from Gibbon WL Sanctuary.

20.10.19 Expansion of Bulk Drugs Intermediates Manufacturing Unit (from 400 TPM to 1300 TPM) of M/s Virchow Chemicals Pvt. Ltd. at Sy. No. 10, IDA Gaddapotharam, Mandal Jinnaram, District Medak, Andhra Pradesh (TOR)

The project proponent and their Consultant (PridhviEnvirotech (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, due to non-operational of SEIAA/SEAC, proposal is treated as category 'A' and appraised by Expert Appraisal Committee (I).

M/s Virchow Chemicals Pvt. Ltd. has proposed for expansion of Bulk Drugs Intermediates Manufacturing Unit (from 400 TPM to 1300 TPM) at Sy. No. 10, IDA Gaddapotharam, Mandal Jinnaram, District Medak, Andhra Pradesh.Plot area is 25.0 acres of which greenbelt will be developed in 9.0 acres. Cost of expansion project is Rs. 5 crores. Dundigal RF is located at a distance of 0.5 Km. There are 19 reserve forests in 10 Km distance. It is proposed to expand the production capacity of the existing product along with 2 new products. Following products will be manufactured:

Scrubber will be provided to boiler waste heat recovery (1x3 TPH). Scrubber will be provided to control process emissions viz. HCl and SO_2. Additional DG set (1x 725 KVA) will be installed. Fresh water requirement from private supply will be increased from 153m^3/day to 466.05m^3/day after expansion. Effluent generation will be increased from 47m3/day to 144.5m3/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 decided that details of conduct of AAQ Monitoring during March-May 2014 should be furnished. The Committee recommended TOR as given in **Annexure-5**.

19.11 Any Other Items

20.11.1 Proposed Grass Root Refinery-cum-Petrochemical Complex of 15 MMTPA for unloading crude Oil of M/s IOCL at Dist. Cuttack, Orissa (Extension of validity of EC)

The above proposal of IOCL for validity extension was already considered in 4th EAC Meeting held during 8th – 9th January, 2013 as item no. 4.3.2. The Committee recommended for the extension of validity of EC by a period of five years w.e.f from 06.07.2012 subject to the specific and general environmental conditions.

20.11.2 Proposed Plant of Ion Exchange resins (Unit-2) of M/s Thermax Ltd. at Dist. Bharuch, Gujarat (Extension of validity of EC)

Environmental Clearance (EC) to the above proposal was accorded by MoEF vide letter no. J-11011/964/2008-IA II (I) dated 12.05.2009. The Project Proponent (PP) vide letters dated 10.03.2014 has submitted the updated Form I has requested MoEF for extension of validity of EC. PP informed that NOC application was submitted to GPCB on 15.03.2010 and same was rejected by GPCB on 15.12.2010 on the basis "no new permission for discharge in to the pipeline for FETP is being granted at this stage". As discharge in old pipeline of NCTL vie FPT is not permitted at present, they become member of new pipeline of NCTL (which goes to deep sea directly from Jhagadia GIDC. Environmental clearance of pipeline of NCTL is in process and it will take another 8-10 months from now. They are unable to start construction of the unit without Consent to Establish from Gujarat Pollution Control Board. CTE will be granted only after 8 – 10 months from now after the EC of new pipeline of NCTL is obtained.

After detailed deliberations, the committee recommended for the extension of validity of EC for a period of two years with effect from 12.05.2014.

20.11.3 Expansion of Distillery Unit from 40 KLPD to 60 KLPD of M/s Naraingarh Distillery Ltd. at Dist. Ambala, Haryana (Extension of validity of EC)

Environmental Clearance (EC) to the above proposal was accorded by MoEF vide letter no. J-11011/198/2009-IA II (I) dated 10.06.2009. PP vide letter dated 10th February, 2014 has applied from extension of validity of EC.

After detailed deliberations, the committee recommended for the extension of validity of EC for a period of two years with effect from 10.06.2014.

20.11.4 Expansion of Sugar Unit (3500 to 6500 TCD) and Installation of New Distillery Unit (50 KLPD) of M/s The Nandi SahakariSakkareKarkhaneNiyamit, vill. Krishnanagar, Taluk & Dist. Bijapur, Karnataka (Amendment to EC)

Environmental Clearance (EC) to the above proposal was accorded by MoEF vide letter no. J-11011/644/2007-IA II (I) dated 2.09.2008 with following specific conditions:

"The spent wash generated (400 m3/day) after bio-methanation shall be composted with press mud. No effluent shall be discharged outside the factory premises and zero discharge shall be strictly followed. Land and other requirements of treatment of spent wash with press mud shall be as per the CPCB guidelines. The compost yard shall be made impervious as per the CPCB guidelines. "

PP has requested to "allow concentration and incineration system instead of Bio-methanation and composting process as per the condition of KSPCB".

After detailed deliberations, the committee recommended the proposal for amendment in EC's specific condition for spent wash treatment by concentration followed by incineration through incineration boiler. All other environmental conditions including validity period would remain the same.

20.11.5 Letter of M/s Numaligarh Refinery Ltd. on condition No. 3 of Environmental Clearance to NRL vide MoEF's OM No. J-11011/16/90-IA.II dated 31.05.1991.

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

20.11.6 Proposed Visakh Refinery Modernization-cum Expansion Project (VRMP) (TOR)- Report of Site Visit of Sub-Committee of EAC to HPCL-Visakh Refinery

As per the recommendation of the Reconstituted Expert Appraisal Committee (Industry) in its 18th meeting held during 28th April 2014 To 30th April 2014, a Sub-committee of EAC comprising Sh. R. K. Garg, Shri Niranjan Raghunath Raje, Dr. C S Dubey and Dr. B Sengupta, Members, EAC along with Representatives from MoEF will visit the ONGC site and Cairn Energy project site to assess the pollution control measures being adopted in the existing project area and suggest additional pollution control measures to be adopted in the proposed project, if any. EAC also desired that Sub-Committee shall also visit site of HPCL Vishakhapatnam for which they have already submitted a proposal for expansion. Dr. B. Sengupta, Member could not join the visit due to some unavoidable reasons.

Site visit was conducted by the subcommittee on 14thJune, 2014. List of officials attended the site visit is as given below:

(i) From **HPCL-Visakh Refinery**.

Sl. No	Participant Name	Designation
	HPCL :	
1	Shri. B. K. Namdeo	Director-Refineries
2	Shri. S.C. Mehta	Executive Director- Refineries Project Process ,HQO
3	Shri. V.V.R. Narasimham	Executive Director- Visakh Refinery (VR)
4	Shri. G.S. Prasad Sarma	General Manager- Operations , VR
5	Shri. S.Raja	General Manager-Maintenance, VR
6	Shri. LakshmanVenugopal	General Manager- Projects, VR
7	Shri. Santhosh Daniel	General Manager- Finance, VR
8	Shri. A.S.V.Ramanan	General Manager- HR , VR
9	Shri. V.S. Shenoy	General Manager- DHT Commissioning , VR
10	Shri. B.Balagangadharam	Dy. General Manager i/c – Technical ,VR
11	Shri. V.Ratan Raj	Dy. General Manager- Central Engg Process ,HQO
12	Shri. S.Bharathan	Dy. General Manager- Task Force, VR
13	Shri. R.Ramakrishnan	Chief Manager i/c- Operations VR
14	Shri. S.S. Nandanwar	Chief Manager- Tech Process Safety &Env. VR
15	Shri. S.N. Soman	Chief Manager- Fire & Safety, VR
16	Shri. S.Sriram	Chief Manager- Central Enggg Process, HQO
17	Shri. Ashraf Jamal	Senior Manager- Central Engg Process, HQO
18	Shri. Sudhir Kumar Kashyap	Senior Engineer- Central Engg Process, HQO
19	Shri. Deepak Kumar Jha	Senior Engineer- Central Engg Process, HQO
	EIL :	
1	Shri. L.K. Vijh	Executive Director- Technical POSD
2	Shri. VipanGoel	Dy.General manager- General Civil
3	Dr. Shobha Agrawal	Asst. General Manager- Process
4	Shri. Sandeep Sharma	Manager- POSD
5	Shri. Sunil Toor	Senior Engineer- POSD

(ii) From Expert Appraisal Committee (Industry):

i. Shri R.K. Garg, Vice Chairman
ii. Shri Niranjan Raghunath Raje, Member
iii. Dr. C S Dubey, Member

(iii) From AP Pollution Control Board:

i. Shri Mukund Rao, Asst. Environmental Engineer

(iv) From Ministry of Environment & Forests, New Delhi:

i. Dr. U Shridharan, Director, MoEF, Regional Office, Bangalore.

ii. Shri A N Singh, Jt. Director (S), MoEF

A presentation on Visakh Refinery complex covering the topography, neighboring industries and population settlements, existing process unit facilities and the proposed VRMP project facilities along with the associated risk of the project sites was made by HPCL on June 13, 2014.

Visakh Refinery complex is located in two plot areas, i.e., Refinery: 511 Acres and Additional Tankage Project (ATP): 212 Acres. The Refinery plot has processing units & associated facilities and crude/product storage tanks. The ATP plot has mainly crude/product storage tanks. Visakh Refinery complex is located in an area which is having cluster of industrial establishment, the boundaries of the complex (Refinery+ATP) are defined as:

- East- there are old and defunct product Terminal facilities of HPCL and further east there are IOC and BPCL Terminals.
- West- refinery shares the boundary with M/s Coromandal Fertilizers Limited.
- North - M/s Andhra Petrochemicals, M/s East India Petroleum and chemical storage godowns.
- South - there is a public road connecting to National Highway and human settlement colonies which are far away (more than 1 Km) from the existing process unit facilities of the refinery.

In the year 2008, HPCL acquired three (3) different pieces of land totaling ~284 Acres in close proximity to the refinery from Visakhapatnam Port trust (VPT) on lease. In one of the VPT leased plots, the White Oil Terminal & the LPG Bottling Plant which were close and contiguous with the refinery were relocated. HPCL had invested significantly to acquire additional lease land and to relocate the Marketing Terminal facilities to facilitate refinery capacity expansion at a future date. Further in the other two plots (one closer to Airport/INS DEGA and the other close to refinery Additional Tankage Project site), it is considered that crude and product tanks will be located.

Also, HPCL has invested in Single Point Mooring (SPM) facility for receiving crude oil through Very Large Crude Carrier (VLCC) which reduces the crude transportation cost to refinery and in crude oil cavern of 330 TMT at Visakhapatnam which is expected to be commissioned next year and shall be for exclusive use by HPCL for its regular crude storage. These facilities are already considered for facilitating refinery capacity expansion.

The present refinery crude processing capacity of 8.33 MMTPA is being augmented to 15 MMTPA. A new 9 MMTPA energy efficient Crude Distillation Unit (considering dismantling of an old Crude Distillation Unit) along with secondary processing units viz., Full Conversion Hydrocracker, Bottoms upgrade unit –'Slurry Hydrocracker' and matching Sulphur Recovery units are proposed to be installed.The new units are considered to be located either in vacant plot available or in the plot area available after removal/relocation of existing facility.

Post expansion, the current SOx emission limit of 11.5 TPD will be maintained. Further, the process units are configured to produce Motor Spirit (MS) and High Speed Diesel (HSD) products which shall comply with Euro IV and Euro V norms.

The following Units are proposed under VRMP:

Sl.No.	Process Unit	Units	Capacity
A	**Main Processing Units**		
1	Crude/Vacuum Distillation Unit	MMTPA	9.0
2	Full Conversion Hydrocracker	MMTPA	2.8
3	Slurry Hydrocracker	MMTPA	2.8
4	Propylene Recovery Unit	KTPA	42
5	Solvent De-asphalting Unit	MMTPA	2.5
6	Hydrogen Generation Unit	KTPA	105 x 2 trains

Sl.No.	Process Unit	Units	Capacity
7	Alkylation Unit – (Future)	KTPA	200
B	**Auxiliary Units**		
1	Straight Run LPG Treater	KTPA	135
2	Cracked LPG Treater	KTPA	140
3	Sour Water Stripping Unit-I	TPH	193
4	Sour Water Stripping Unit-II	TPH	293
5	Fuel Gas Amine Treating Unit	KTPA	350
6	Amine Regeneration Unit	TPH	388
7	Sulphur Recovery Unit	TPD	245 x 2 trains

The above refinery expansion plan was on the anvil since 2006 and had difficulty in progressing further due to clear land availability. Also, environmental moratorium was prevailing in the Visakhapatnam bowl area from Jan, 2010 which was lifted by MoE&F inSep, 2013.

Following are the details of plot area and proposed facilities in the area:

1. The new White Oil Terminal and LPG Bottling Plant christened as 'Petro Park' are relocated and are operational in 117 Acres of VPT lease land. The old White Oil Terminal tanks and the LPG spheres and bottling facilities are being dismantled and removed. In this area, it is proposed to install the following major units:

- Slurry Hydrocracker Unit
- Solvent De-asphalting Unit
- Fuel Gas Amine Treatment Unit
- Cracked LPG Treater
- Alkylation Unit (future unit for MS Euro V compliance)
- Sea Cooling Water Tower (along the eastern periphery of the plot)
- Nitrogen & Air Compressor Plant (along the eastern periphery of the plot)

This plot is contiguous with refinery on the west side, on the north there is M/s HINCOL plant manufacturing Bitumen Emulsions, on the east IOC Tankage Terminal and on the south side green belt of about 100m belonging to VPT exists which will provide buffer to the proposed refinery operational area.

The proposed units are appropriately located so that the risk contours are confined within the refinery premises. Further, while developing the plot area it shall be ensured that all along the periphery of the plot green belt development is considered.

2. It is proposed to remove LPG/Propylene/Water Horton spheres (9 spheres) within the refinery (southeast side), which have been decommissioned in the year 2010 and in its location, the new Crude Distillation Unit along with Straight Run LPG Treater is proposed to be set up. This unit is to be so located so that the hot black heavy oil for processing in the Solvent De-asphalting Unit /Slurry Hydrocracker is kept in the close proximity to reduce the run length of the pipeline.

The risk contours are confined within the refinery boundary for all possible failure cases considered in the Risk Analysis study by M/sEIL.

3. Service buildings like Maintenance Workshop, etc. are proposed to be relocated along the refinery south boundary away from process units.

In this place, the new Sulphur Recovery Unit (2 trains), Sour Water Stripping Units and Amine Regeneration Unit are proposed.

4. The existing 5 nos. Crude Oil Storage Tanks (60,000 Cum capacity each) on the south west side of the refinery are proposed to be removed and the area is proposed for installing the new Full Conversion Hydrocracker Unit and Hydrogen Generation unit.

The south west section of the refinery periphery has human settlement. The proposed units are oriented in such a manner that the risk contours for all possible failurescenarios considered by M/s EIL are limited within the refinery premises.

Further, with the removal of 5 nos. of Crude Oil Storage tanks, the crude oil inventory of 300,000 Cum handled within the refinery is eliminated.

Green belt development shall be considered on the south west boundary along the periphery wall to provide buffer zone.

5. Plot area available in the existing Additional Tankage Project (ATP):

South Eastern side of the ATP plot area: At present there are Waste Water Treatment and the drinking & service water systems located in this area. The Waste water treatment is being integrated with the refinery Integrated Effluent Treatment facilities and the drinking/service water facilities will be relocated within the ATP area. In this area, two crude tanks of ~24000 Cumeach are proposed to be installed meeting the OISD guidelines.

Under Form 1 submitted in January18, 2013, seven (7)crude oil tanks each of 60,000 Cumwere considered in the VPT lease plot near INS DEGA/Airport. All these crude tanks are now not being considered for installation, instead only two (2) tankseach of ~24,000 Cum as mentioned above are only being considered in the south eastern side of the ATP plot area.

Further, it was informed that one Crude Oil Storage Tank will normally be under maintenance & repair on rotation basis.

Northern side of the ATP area: It is proposed to locate one Diesel Tank (Euro V) of approx. 24,000 Cum with a future provision earmarked for similar one tank capacity.

6. HPCL had acquired 51 Acres of land north of ATP plot on lease from VPT.As per Form I submitted in January 18,2013,it is proposed to install the following:

Tanks:

- High Speed Diesel (HSD) Euro IV: 4 nos. (40,000 Cum each)
- HSD Euro V: 4 nos. (2 x 46,100 Cum each& 2 x 40,000 Cum each)
- Naphtha: 1no. (24,000 Cum)
- Motor Spirit (MS) Euro IV: 1no. (13,000 Cum)

Note: Subsequent to the EAC (I) meeting held on December 20, 2013 for TOR, HPCL had considered this land for installing Coal based Power Plant so as to conserve on the costly naphtha for making value added products instead of considering in the CPP- Gas Turbines. However, the progress of the coal based power project is subject to the clearance from Eastern Naval Command on the chimney height and storage of coal yard due to proximity to the airport. Reply is awaited from Navy in this regard. In case, the Coal based power project can proceed ahead as palnned, the same shall be taken up for necessary environmental clearance separately.

The HSD, MS and Kerosene are predominantly (~75-80%) transported through pipelines especially Visakh-Vijayawada-Secunderabad Pipeline (VVSPL) which is also being augmented suitably by HPCL as a separate project. Besides the pipeline transport, the products are moved through coastal, inland movement through tanker trucks and as part of oil exchange with other Oil Marketing Companies viz., IOC, BPCL.

Thereafter the Committee took a round of the whole plant including the area proposed for expansion. Based on the presentation and visit the following salient features emerged:

1. The crude refining capacity which is presently 8.33 MMTPA (with three crude distillation unit) will be increased to 15 MMTPA. Further the yield of the distillate will also be increased by installing residue up-gradation facilities. Out of the existing 3 crude distillation units, one will be dismantled and a new crude distillation unit of 9 MMTPA will be installed for the total capacity of 15 MMTPA.

2. Presently, the crude storage capacity in the refinery area will be brought down from 532 TMT to 322 TMT in view of the storage in cavern of 330 TMT. This way the 5 crude storage tanks of total capacity 210 TMT will be removed to make space available for expansion.

3. The existing refinery area is 511 acres and tank storage area of 212 acres. In addition, 40 acres of land adjoining to refinery which was used by the marketing Division will also available for expansion making a total area of 763 acres. Out of this 295 acres land will be used for expansion and greenbelt. It was also observed that refinery area also include a hillock in an area of approx. 25 acres, which is full of trees.

4. All the LPG and propylene storage which was earlier in hortenspheres, has now been converted to mounded storage.

5. The transportation of the crude as well as the products is mostly through pipeline.

6. During the site visit it was observed that the human population is only on the south side of the refinery. On the other three sides there is open land or other industries likeCoromandal Fertilizer.

7. Some facilities of the expansion project will be installed in the south direction. It was learnt that adequate safety distance will be maintained from the south side boundary line.

8. M/s EIL have been assigned the task of carrying out the risk assessment and consequence analysis and based on that, layout will be frozen.

9. Out of the three online AAQMS, the Committee visited one station. However, the Committee observed that the measurement system need, some improvement and monitored value should be verified from manual measurements.

10. The Committee also observed the oil recovery system adopted from tank bottom sludge. After recovery cake containing about 5 – 7 % oil is sent for bio-remediation. However, storage of the cake should be done in the covered area with pucca floor.

11. For the proposed expansion, most of the process effluent will be recycled to reduce the fresh water requirement as well as effluent discharge. For cooling purposes, sea water is being utilized.

12. It was reported that earlier EC conditions have all been complied.

13. SO_2 emission of 11 MT per day will be maintained after expansion.

In view of the above, the Site visit Committee recommended that TOR for expansion of 15 MMTPA along with modernization may be provided to HPCL with the following **additional TORs**.

- The layout of the expansion plant should be such that major consequences of any accidental release are contained within the plant boundary.

- The SO2 emissions after expansion should not increase from the existing stipulation of 11 MTPA.

The Site Visit Report was considered by the EAC (I). After detailed deliberations, the Committee recommended the project for award of TOR along with additional TOR based on observations/suggestions made by the site-visit Committee for undertaking detailed EIA-EMP study:

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. A short 3-D video presenting the facilities and infrastructure installed/added with every EC obtained for the Refinery and also presented in tabular form.
6. Land details .
7. Point-wise compliance report to the 'Consent to Establish' 'Consent to operate' and Authorization accorded by Gujarat Pollution Control Board for all the existing units along with all the necessary annexure.
8. Existing data for the last 2 years for all the relevant parameters should be included.
9. Site details including satellite imagery for 5 km around the site.
10. A list of industries within 10 km radius of the project.
11. Details of facilities along with utilities to be provided for the proposed project.
12. Manufacturing process details along with the chemical reactions and process flow diagram.
13. List of products along with the production capacities and list of solvents and its recovery plan.
14. Detailed list of raw material required and source, mode of storage and transportation.
15. Details of the storage and technical specifications with safety aspects & standards.
16. Is there additional storage required for the proposed products mix.
17. Proposal for safety buffer zone around the proposed site with map.
18. Details indicating National Park/Wild life Sanctuary/Eco-sensitive area/reserve forest within 10 Km.
19. Land use along with maps & cropping pattern, vegetation, ecology, flora & fauna
20. Demography & socio-economics of the area.
21. 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.
22. Give existing status of stack emission, raw water requirement, treated effluent quantity & quality data, noise pollution and solid waste management in the existing units.
23. Action plan to achieve smokeless flare should be included.

24. Details of Sulphur balance in the existing refinery unit. Additional SO_2 emissions due to the proposed product mix.
25. Unit-wise air pollution control devices to be installed.
26. 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.
27. Details of existing and proposed effluent treatment plant along with water quality of inlet and outlet of ETP.
28. Action plan to reduce wastewater discharge from the all existing units.
29. Detailed solid waste generation, collection, segregation, its recycling and reuse, treatment and disposal.
30. Note on compliance to the recommendations mentioned in the CREP for oil refineries and petrochemical industries.
31. A note on implementation of new refinery standards for refineries.
32. 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.
33. Details of catalyst waste generated from the refinery along with temporary storage facility at site. Action plan for disposal of the catalyst solid waste.
34. Status of existing secured landfill sites. Design details as well as ground water monitoring around the project site.
35. Details of membership of TSDF for hazardous waste disposal.
36. Assessment of impact on air, water, soil, solid/hazardous waste and noise levels.
37. List of hazardous chemicals (as per MSIHC rule) with toxicity levels.
38. Details of proposed preventive measures for leakages and accident.
39. Details of Vapour Recovery System.
40. Earmarking of area for parking of Lorries at a remote location to avoid congestion.
41. Traffic management with adequate width of approach road to avoid congestion and to have safe exit in emergencies.
42. Type of seismic zone.
43. 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.
44. 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.

45. Details including existing green belt developed. Action plan for development of green belt in 33%.
46. Total capital cost and recurring cost/annum for environmental pollution control measures. Break up details should also be included.
47. At least 5 % of the total cost of the project should be earmarked towards the Enterprise Social Commitment based on Public Hearing issues and item-wise details along with time bound action plan should be prepared and incorporated.
48. Detailed Environment management Plan (EMP) with specific reference to details of air pollution control system, water & wastewater management, monitoring frequency, responsibility and time bound implementation plan for mitigation measure should be provided.
49. 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.
50. Details of Corporate Social Responsibility (CSR) including sufficient budgetary provision for health improvement, education, water and electricity supply etc. in and around the project.
51. Corporate Environmental Responsibility
    (a) Does the company have a well laid down Environment Policy approved by its Board of Directors? If so, it may be detailed in the EIA report.
    (b) Does the Environmental Policy prescribe for standard operating process/procedures to bring into focus any infringement / deviation / violation of the environmental or forest norms / conditions? If so, it may be detailed in the EIA report.
    (c) What is the hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the EC conditions. Details of this system may be given.
    (d) Does the company have a system of reporting of non compliance / violations of environmental norms to the Board of Directors of the company and / or shareholders or stakeholders at large? This reporting mechanism should be detailed in the EIA report.
52. Any litigation pending against the project and /or any direction /order passed by any Court of Law against the project, if so, details thereof.
53. Public hearing issues raised and commitments made by the project proponent on the same should be included separately in EIA-EMP Report in the form of tabular chart with financial budget for complying with the commitments made.
54. A tabular chart indicating point-wise compliance of the TOR.

Additional TORs:

55. The layout of the expansion plant should be such that major consequences of any accidental release are contained within the plant boundary.
56. The SO2 emissions after expansion should not increase from the existing stipulation of 11 MTPA.

It was decided that TORs prescribed by the Expert Appraisal Committee (Industry) shall 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 A.P.Pollution Control Board for conducting public hearing/consultation. The issues emerged and response to the issues raised during public hearing should be incorporated in the EIA-EMP report and submitted to the Ministry for obtaining environmental clearance.

20.11.7 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) - Site Visit Report.

As per the recommendation of the Reconstituted Expert Appraisal Committee (Industry) in its 18th meeting held during 28th April 2014 To 30th April 2014, a Sub-committee of EAC comprising Sh. R. K. Garg, Shri Niranjan Raghunath Raje, Dr. C S Dubey and Dr. B Sengupta, Members, EAC along with Representatives from MoEF will visit the ONGC site and Cairn Energy project site to assess the pollution control measures being adopted in the existing project area and suggest additional pollution control measures to be adopted in the proposed project, if any.

The Site visit was conducted by the subcommittee on 15th June, 2014.

(v) From **Cairn India**

14. Dr. HarikrushnaPatnaik
15. Mr. S.S. Pandian
16. Mr. Thomas Christopher J.
17. Mr. K. Srihariprasad Reddy
18. Dr. Ashok Kumar
19. Mr. S. Natarajan
20. Mr. V. Satish
21. Mr. S. Tatayya Naidu
22. Mr. PSSV Prasad Babu
23. Mr. Dhrubanarayan Mukherjee
24. Dr. B.K. Shrivastva from IT BHU
25. Ms. Ruby Ojha from ERM Consultants

(vi) From Expert Appraisal Committee (Industry):

i. Shri R.K. Garg, Vice Chairman
ii. Shri Niranjan Raghunath Raje, Member
iii. Dr. C S Dubey, Member

(vii) From AP Pollution Control Board:

i. Regional Officer

(viii) From Ministry of Environment & Forests, New Delhi:

i. Dr. U Shridharan, Director, MoEF, Regional Office, Bangalore.
ii. Shri A N Singh, Jt. Director (S), MoEF

The visit started with a safety briefing to the EAC Officials followed by a presentation on overview of the plant, its operation, Safety Assurance and the Environmental Foot prints of the Ravva Asset by Dr. Patnaik and Mr. Thomas.

The PP informed 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. Over the years due to aging of the field, production of oil and gas has declined. CIL is presently producing 22,000 BOPD of crude and 1.44 MMSCMD of natural gas. In order to maintain the approved hydrocarbon production capacity, 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 from 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 evacuation through existing pipelines from RB platform to Ravva Terminal.
- Drilling of 6 exploratory /appraisal wells to assess presence of hydrocarbons in pools.

During the presentation, the Proponent has described the existing and proposed projects in details and the Environmental footprints related to the existing and proposed expansion as captured in the EIA report.The issues raised during the presentation were replied satisfactorily by concerned plant personal.

After the discussion, four of five Sub-Committee members (Dr. R. K. Garg, Shri Niranjan Raghunath Raje; Shri Sridharan and Shri A.N.Singh) along with CIL representatives visited the plant, Central Control Room, Incident Response Center, Effluent Treatment Plant, Sewage Treatment Plant and Hazardous Waste storage area etc. within the plant premises. During the visit, CIL representatives explained the plant operations, Safety control system, Environmental Aspects and their control, Green belt development initiatives and effective impact mitigation measures in practice and any such queries as raised during the visit.

During the discussion, issues like Land subsidence; CSR initiatives and Pollution control measures as raised during public hearing were also discussed. Dr. C.S Dubey, Member, sub-committee along with CIL representatives visited the local villages for their firsthand information.

On land subsidence issue, CIL has proactively engaged IIT- BHU to carry out an independent study on possible land subsidence due to extraction of oil and gas from PKGM-1 Block in KG Basin. Prof. (Dr.) Shrivastava from IIT- BHU, briefed the Scope of Work and procedure adopted for measuring subsidence in the area. As intimated by PP, during the study period of One year, physical measurements will be carried out to propose forward plan of action to probe the matter further till logical conclusion. The outcome after the first year study will be shared to MoEF.

On the issues of strengthening infrastructure development and various CSR initiatives in and around the project site, CIL explained the following:

- CIL has a tripartite agreement with district administration, Local representatives and CIL nominated authorities to plan and implement the developmental and CSR activities in the locality.
- Besides, lots of activities as described below are being undertaken by CIL to ensure a better quality of life of the nearby villagers.
- CIL has developed infrastructure projects like Village Internal Roads, construction of Water Tanks, laying of water pipelines in the village, provision of RO Plant and Solar Lights.
- CIL has provided infrastructure to local Government schools.
- Skill development programs conducted for village youth through Technical Tie up with GMR Institute, NIIT and TCS, IL&SS. Village youth have been trained and placement support has been provided.
- Established Computer Centre
- Fully funded construction of Individual Toilets for ~550 houses.
- Established Balwaadis and Angnawaadis
- CIL constructed a 12 bedded hospital in S.Yanam village which was sanctioned by Government as a Primary Health Center (PHC). The PHC is awaiting formal approval from District authorities for functioning. However, CIL Company Medical Doctor is rendering necessary support to village.
- CIL has carried out Mangrove plantation of approx. 50 acres adjacent to the block area.

Observations/Recommendations:

i. The Committee invited comments from the Regional Officer, APPCB who had conducted the public hearing. According to him the main apprehension of the people was in respect of likely subsidence and its adverse consequences. This matter has already been addressed by the Committee in other cases and

recommendation has been made to MoEF to sponsor an independent study on the question of subsidence as well as the problem of salinity in some of the wells /borewells. They have already initiated a study with the help of IT BHU in respect of land subsidence.

ii. Other issue was CSR activities for which Committee has recommended that a concrete plan of action should be prepared in consultation with the District Authority and the local people and a mechanism for it monitoring should be worked out. It was observed that Chairman of the public hearing has made suggestions on similar line.

iii. The Committee noted that the proposal does not involve any expansion of capacity of the process terminal. In view of the low yield from the existing production wells, additional wells are required to be drilled, so that the installed capacity of collection and processing at the onshore terminal can be maintained.

With the aforesaid observations, the site-visit Committee recommended the proposal for EC.

The Site Visit Report was considered by the EAC. The Committee deliberated upon the SCZMA recommendation dated 15.03.2014 by the AP State Coastal Zone Management Authority for the above mentioned project proposal.

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

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

ii. CRZ clearance shall be obtained.

iii. Gas produced during testing shall be flared with appropriate flaring booms.

iv. 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.

v. Total water requirement shall not exceed 85 m3/day (45 m3/day fresh water + 40 m3/day seawater) and prior permission shall be obtained from the Competent Authority for the drawl of water. Only water based mud system shall be used.

vi. Water based drilling mud shall be discharged to the sea after proper dilution as per E(P) Rules vide G.S.R 546(E) dated 30th August, 2005.

vii. The Company shall ensure that there shall be no impact on flora fauna due to drilling of wells in the offshore sea. The company shall undertake conservation measures to protect the marine animals/biota in the region. The company shall monitor the petroleum hydrocarbons and heavy metals concentration in the marine fish species regularly and submit report to the Ministry.

viii. Treated wastewater (produced water or formation water) shall 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 shall not exceed 1 mg/l before disposal. Sstandards for injection

produced water into confined hydrocarbon reservoir structure at more than 1000 m with oil in water content of less than 10 ppm shall be complied.

ix. The drill cutting (DC) wash water shall be treated to conform to limits notified under the Environment (Protection) Act, 1986, before disposal into sea. The treated effluent shall be monitored regularly.

x. All the guidelines shall 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. Different types of wastes shall be kept segregated.

xi. High efficiency equipment shall be used to separate solids, hydrocarbons and water such as shale shakers with improved capacity to filter smaller solids, low shear pumps for use in produced water shall be employed.

xii. Good book keeping practices shall be put in place to manage wastes such as waste tracking program i.e. identify where and when the waste generated, the type of waste and its volume, the disposal method and its location, and the personnel responsible for the waste management.

xiii. A waste minimisation plan shall be developed and followed through proper inventory management following best practices in drilling operations, good housekeeping practices and optimised equipment maintenance schedules.

xiv. Only essential rig personnel shall be on board the rig. Emergency Response Plan and health, safety and environment (HSE) system shall be installed. Geo- hazard and geotechnical studies shall be carried out to ensure safe drilling operations.

xv. All the hazardous waste generated at the rig/offshore facility shall be properly treated, transported to on shore and disposed of in accordance with the Hazardous Waste (Management, Handling and Transboundary Movement) Rules 2008. No waste oil shall be disposed off into sea. Waste/used oil shall be brought on-shore and sold to MOEF/CPCB authorized recyclers/re-processors only.

xvi. Requisite infrastructure facilities shall be provided near the offshore installations so that booms and skimmers/chemical dispersants could be deployed immediately in case of oil leakage from the installations. Efforts shall be made to curtail the oil slick within 500 meters of the installation and accordingly, action plan and facilities to check the oil slick within 500 meters shall be provided.

xvii. Approval from DG Shipping under the Merchant Shipping Act prior to commencement of the drilling operations shall be obtained. At least 30 days prior to the commencement of drilling, the exact location shall be intimated to the Director General of Shipping and the Company shall abide by any direction he may issue regarding ensuring the safety of navigation in the area.

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

xix. The Company shall take necessary measures to reduce noise levels such as proper casing at the drill site and meet DG set norms notified by the MOEF. Height of all the stacks/vents shall be provided as per the CPCB guidelines.

xx. The design, material of construction, assembly, inspection, testing and safety aspects of operation and maintenance of pipeline and transporting the natural gas/oil shall be governed by ASME/ANSI B 31.8/B31.4 and OISD standard 141.

xxi. The project proponent shall also comply with the environmental protection measures and safeguards recommended in the EIA /EMP/RA/NIO report.

xxii. Full drawings and details of Blow Out Preventor to encounter well kick due to high formation presence, if encountered, shall be submitted to the Ministry's Regional Office within 3 months of the issue of environment clearance.

xxiii. On completion of activities, the well shall be either plugged and suspended (if the well evaluation indicates commercial quantities of hydrocarbon) or killed and permanently abandoned with mechanical plugs and well cap. If well is suspended, it shall be filled with a brine solution containing small quantities of inhibitors to protect the well. The position at the end of the activities shall be communicated in detail to the Ministry indicating the steps taken i.e. whether all the wells are plugged or abandoned and necessary precautions taken.

xxiv. A brief report on environmental status & safety related information generated and measures taken as well as frequency of such reporting to the higher Authority shall be submitted to this Ministry and its respective Regional Office at Bangalore.

xxv. Petroleum and Natural Gas (Safety in Offshore Operations) Rules 2008 of OISD shall be strictly adhered to.

xxvi. Recommendations mentioned in the Risk Assessment & Consequence Analysis and Disaster Management Plan shall be followed.

xxvii. Adequate funds both recurring and non-recurring shall be earmarked to implement the conditions stipulated by the Ministry of Environment and Forests as well as the State Government along with the implementation schedule for all the conditions stipulated herein. The funds so provided shall not be diverted for any other purposes.

xxviii. Petroleum and Natural Gas (safety in Offshore Operations) Rules 2008 of OISD shall be strictly adhered to.

xxix. Concrete plan of action for Enterprise Social Responsibility consisting 5 % of project cost shall be prepared in consultation with the District Authority and the local people and a mechanism for it monitoring should be worked out. Action plan shall be submitted to MoEF's RO Office for monitoring.

20.11.8 Development of Vashishta and S-I of KG Offshore, Eastern Offshore Asset at Kakinada and expansion of Odalarevu Onshore Terminal of M/s ONGC in East Godavari Dist., A.P. (Further consideration of EC) –Site Visit regarding.

As per the recommendation of the Reconstituted Expert Appraisal Committee (Industry) in its 18th meeting held during 28th April 2014 To 30th April 2014, a Sub-committee of EAC comprising Sh. R. K. Garg, Shri Niranjan Raghunath Raje, Dr. C S Dubeyand Dr. B Sengupta, Members, EAC along with Representatives from MoEF will visit the ONGC site and Cairn Energy project site to assess the pollution control measures being adopted in the existing project area and suggest additional pollution control measures to be adopted in the proposed project, if any.
Site visit was conducted by the subcommittee on 15th-16thJune, 2014.

(i) **M/s ONGC**

1. Sri P.K. Dileep – GM(P)- SM, EOA, ONGC
2. Shri J S Sharma, GM
3. Sri A.B.N. Rao – DGM(G) – SSM, EOA, ONGC
4. Sri P.R. Bhavana – GM(G) – Forward Base, Rajahmundry
5. Dr. S. Kishan Rao – DGM(Ch), EOA, ONGC
6. Sri A. Subhan – DGM(E&T), EOA, ONGC
7. Sri T. Suryanarayana – DGM(E&T), EOA, ONGC
8. Sri B V S SRamakotaiah - DGM(P4), EOA, ONGC
9. B.V.S.S.Ramakotaiah, Dy. General Manager (Production)
10. Sri J V H Prasad – Chief Engineer(P), I/C-HSE, EOA, ONGC
11. Sri J. Bhashya – Chief Engineer(P), Installation Manager, Odalarevu-GCS, EOA, ONGC
12. Mr.S.K.Lijjara, Chief Chemist, CHSE

(ii) Expert Appraisal Committee (Industry):

i. Shri R.K. Garg, Vice Chairman
ii. Niranjan Raghunath Raje, Member
iii. Dr. C S Dubey, Member

(iii) From AP Pollution Control Board:

i. Regional Officer

(iv) From Ministry of Environment & Forests, New Delhi:

i. Dr. U Shridharan, Director, MoEF, Regional Office, Bangalore.
ii. Shri A N Singh, Jt. Director (S), MoEF

The subcommittee visited the offshore drilling well platform namely **Rig Actinia of semisubmersible type**. The well details along with location and purpose are as follows:

1. **Location**-GS-29 field in IB Block
2. **Name of the well being tested**-GS-29 AJ
3. **Coordinates** - Lat :$16^0$26' 49.85"N, Long: $82^0$21'17.55"E
4. **Category** -Exploratory
5. **Purpose** -Exploration of Hydrocarbon potential of Pliocene sands.
6. **Object to be tested** - 2402 M-2397M.
7. **Environment clearance** -J -11011/474/2010-IA II(1) dated 15/05/2011 for PEL offshore in IG & IB blocks.

The subcommittee members were welcomed by ONGC Tool Pusher Sri Raghavan, CE (Drilling) and detailed presentation about the Rig activities was given by Mr. Philips, OIM of Rig Actinia. All the members were given detailed presentation about safety on rig and provided with personnel protective equipment (PPE) for field visit.

The members were taken to Remote operated vehicle (ROV) control room of the rig and were briefed about ROV control activities as most of the deepwater operations are being carried out through ROV. Later, members were taken to derrick floor and briefed about deepwater drilling activities, disposal of drill cuttings, mud preparation and cementing activities. Members enquired about the procedures established in hazardous waste disposal, sewage effluent disposal and location of disposal. All procedures were explained to the committee by Mr. Philips, OIM by showing the location of disposal for hazardous substances, drill cuttings and records were shown to Subcommittee-EAC (I), MOEF.

The subcommittee along with Environment Engineer of Andhra Pradesh Pollution Control Board (APPCB) visited the site for construction of onshore terminal under project development of VA&S1 fieldson **16/06/2014.**

A brief presentation about ONGC CSR activities in the KG basin especially pertaining to Odalarevu village was shown to the committee members. ONGC commitments in the public hearing Vis-à-vis present status were presented and details of ONGC CSR expenditure of Rs 25 crores for the past were shown to the committee members. Later, members carried out site inspection, Tsunami affected Odalarevu coast line and inspected ONGC CSR activities carried out in the village i.e Community hall, site for construction of RO plant, patients have undergone cataract operations.

The committee visited the existing GCS and saw the process activities related to well fluid processing and effluent disposal facilities. The committee visited the quality control laboratory of existing GCS and checked the records for quality of effluents. The details of the GCS pertaining to process handling capacities and consent to operate are as follows:

1. Gas handling capacity - 0.13 MMSCMD

2. Liquid handling capacity - 40 m3/day

3. Consent for operate (CFO) no.-APPCB/VSP/RJY/458/GFO/HO/2012-4075 dated 06.03.2012. Valid upto 31/07/2014.

Brief about CSR activities of Eastern Offshore Asset for the past four years

Eastern offshore Asset (EOA) was formed in the year 2010 for fast track monetization of Eastern offshore fields. The asset commenced oil and gas production from 31st Aug'11 by utilizing production facilities of GCSM Odalarevu as G1 onshore facilities are yet to be completed. The onshore terminal, part of the present project for the development of VA&S1 fields, will be constructed adjacent to the upcoming G1Onshore terminal.

Summary of the CSR activities ONGC carried out for the past four years is as follows:

CSR funds are allocated by the headquarters to each asset as per the ONGC corporate policy. In addition to Eastern offshore asset which is basically involved in development of KG offshore fields; Rajahmundry Asset which is involved in the development of ONGC onshore fields is also utilizing CSR funds for developmental activities in East coast of Andhra Pradesh.

Details of the funds spent during last four years by ONGC (i.e Rajahmundry Onshore Asset + Eastern offshore Asset) are as follows:

S.N.	Year	CSR funds spent by ONGC in Rs	
		Eastern Offshore Asset	Rajahmundry Onshore Asset
1	2010-11	44,99,850	2,83,95,121
2	2011-12	49,05,300	8,60,50,247
3	2012-13	35,82,058	4,40,75,235
4	2013-14	69,26,045	7,06,62,502
Subtotal in Rs		1,99,13,253	22,91,83,105
Grand Total		**Rs 24,90,96,358**	

Hence the total amount spent by ONGC for development activities such as construction of roads, schools, drinking water, health, etc., in villages and towns of East Godavari district, West Godavari districts for the past four years is Rs 25 crores approximately.

The details of major activities/ schemes implemented by ONGC in Odalarevu, nearby villages & towns are as follows:

Sl.No.	**Name of the activity**	**Expenditure in Rs .**
1	Developmental activities in Amalapuram area	1,15,00,000

2	Construction of additional class rooms	50,00,000
3	Construction of indoor stadium at Amalapuram	20,00,000
4	RO drinking water plant at Odalarevu , Razole, Pedapalli, Adavipalem, Komrada , Pasarlapudi villages.	50,65,000
5	Cataract operations for senior citizens in Odalarevu village	3,15,000
6	Scholarships for ZPP schools in Amalapuram Mandal	14,55,000
7	Initial advance for construction of blood bank at GGH, Kakinada	22,00,000
8	Initial advance for project development of Odalarevu village	21,60,000
9	Project for electrification of Odalarevu village with solar lamps	59,00,000
10	Solar lantern to children studying in ZPP school of Odalarevu village	2,97,000
11	Procurement of ambulance for area hospital Amalapuram	8,65,000
12	Helen cyclone relief for Odalarevu village and repair of cyclone shelter	5,05,000
13	Financial support to old age homes in Kakinada & Rajahmundry	20,00,000
14	Construction of additional class rooms	1,00,00,000
15	Construction of CC , BT roads in different villages	5,00,00,000
16	For class room furniture in different villages	1,50,00,000
17	For bus shelters construction and upliftment	1,00,00,000

The Committee noted that the aforesaid schemes implemented and sanctioned for the development of Odalarevu and nearby villages indicated the ONGC commitment towards developmental activities and desired that M/s ONGC details the implementation of CSR activities in its Annual Report and also report the same on the company website for this and for all other projects on the status of implementations of CSR for all its projects.

Recommendations:

i. The Committee invited comments from the Regional Officer, APPCB who had conducted the public hearing. According to him the main apprehension of the people was in respect of likely subsidence and its adverse consequences. It was recalled that this matter has been already discussed by the Committee in other proposals and a recommendation has been made to MoEF to sponsor an independent study on the question of subsidence as well as the problem of salinity in some of the wells /borewells.

ii. Ot**h**er issue was CSR activities for which Committee has recommended that a concrete plan of action should be prepared in consultation with the District Authority and the local people and a mechanism for its monitoring should be worked out. It was observed that Chairman of the public hearing has made suggestions on similar line.

With these recommendations, the site visit Committee recommended the aforesaid expansion project for environmental clearance.

The Site Visit Report was considered by the EAC. The Committee deliberated upon the SCZMA recommendation letter no. 6555/ENV/CZMA/2013 dated 25.11.2013 by the AP State Coastal Zone Management Authority for the

above mentioned project proposal. After detailed deliberations, the Committee based on the additional information furnished and presentation made recommended the project for environmental clearance stipulated the following specific conditions along with other environmental conditions while considering for accord of environmental clearance:

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

ii. CRZ clearance shall be obtained.

iii. Gas produced during testing shall be flared with appropriate flaring booms.

iv. 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.

v. Total water requirement shall not exceed 85 m3/day (45 m3/day fresh water + 40 m3/day seawater) and prior permission shall be obtained from the Competent Authority for the drawl of water. Only water based mud system shall be used.

vi. Water based drilling mud shall be discharged to the sea after proper dilution as per E(P) Rules vide G.S.R 546(E) dated 30th August, 2005.

vii. The Company shall ensure that there shall be no impact on flora fauna due to drilling of wells in the offshore sea. The company shall undertake conservation measures to protect the marine animals/biota in the region. The company shall monitor the petroleum hydrocarbons and heavy metals concentration in the marine fish species regularly and submit report to the Ministry.

viii. Treated wastewater (produced water or formation water) shall 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 shall not exceed 1 mg/l before disposal. Sstandards for injection produced water into confined hydrocarbon reservoir structure at more than 1000 m with oil in water content of less than 10 ppm shall be complied.

ix. The drill cutting (DC) wash water shall be treated to conform to limits notified under the Environment (Protection) Act, 1986, before disposal into sea. The treated effluent shall be monitored regularly.

x. All the guidelines shall 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. Different types of wastes shall be kept segregated.

xi. High efficiency equipment shall be used to separate solids, hydrocarbons and water such as shale shakers with improved capacity to filter smaller solids, low shear pumps for use in produced water shall be employed.

xii. Good book keeping practices shall be put in place to manage wastes such as waste tracking program i.e. identify where and when the waste generated, the type of waste and its volume, the disposal method and its location, and the personnel responsible for the waste management.

xiii. A waste minimisation plan shall be developed and followed through proper inventory management following best practices in drilling operations, good housekeeping practices and optimised equipment maintenance schedules.

xiv. Only essential rig personnel shall be on board the rig. Emergency Response Plan and health, safety and environment (HSE) system shall be installed. Geo- hazard and geotechnical studies shall be carried out to ensure safe drilling operations.

xv. All the hazardous waste generated at the rig/offshore facility shall be properly treated, transported to on shore and disposed of in accordance with the Hazardous Waste (Management, Handling and Transboundary Movement) Rules 2008. No waste oil shall be disposed off into sea. Waste/used oil shall be brought on-shore and sold to MOEF/CPCB authorized recyclers/re-processors only.

xvi. Requisite infrastructure facilities shall be provided near the offshore installations so that booms and skimmers/chemical dispersants could be deployed immediately in case of oil leakage from the installations. Efforts shall be made to curtail the oil slick within 500 meters of the installation and accordingly, action plan and facilities to check the oil slick within 500 meters shall be provided.

xvii. Approval from DG Shipping under the Merchant Shipping Act prior to commencement of the drilling operations shall be obtained. At least 30 days prior to the commencement of drilling, the exact location shall be intimated to the Director General of Shipping and the Company shall abide by any direction he may issue regarding ensuring the safety of navigation in the area.

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

xix. The Company shall take necessary measures to reduce noise levels such as proper casing at the drill site and meet DG set norms notified by the MOEF. Height of all the stacks/vents shall be provided as per the CPCB guidelines.

xx. The design, material of construction, assembly, inspection, testing and safety aspects of operation and maintenance of pipeline and transporting the natural gas/oil shall be governed by ASME/ANSI B 31.8/B31.4 and OISD standard 141.

xxi. The project proponent shall also comply with the environmental protection measures and safeguards recommended in the EIA /EMP/RA/NIO report.

xxii. Full drawings and details of Blow Out Preventor to encounter well kick due to high formation presence, if encountered, shall be submitted to the Ministry's Regional Office within 3 months of the issue of environment clearance.

xxiii. On completion of activities, the well shall be either plugged and suspended (if the well evaluation indicates commercial quantities of hydrocarbon) or killed and permanently abandoned with mechanical plugs and well cap. If well is suspended, it shall be filled with a brine solution containing small quantities of inhibitors to protect the well. The position at the end of the activities shall be communicated in detail to the Ministry indicating the steps taken i.e. whether all the wells are plugged or abandoned and necessary precautions taken.

xxiv. A brief report on environmental status & safety related information generated and measures taken as well as frequency of such reporting to the higher Authority shall be submitted to this Ministry and its respective Regional Office at Bangalore.

xxv. Petroleum and Natural Gas (Safety in Offshore Operations) Rules 2008 of OISD shall be strictly adhered to.

xxvi. Recommendations mentioned in the Risk Assessment & Consequence Analysis and Disaster Management Plan shall be followed.

xxvii. Adequate funds both recurring and non-recurring shall be earmarked to implement the conditions stipulated by the Ministry of Environment and Forests as well as the State Government along with the implementation schedule for all the conditions stipulated herein. The funds so provided shall not be diverted for any other purposes.

xxviii. Petroleum and Natural Gas (safety in Offshore Operations) Rules 2008 of OISD shall be strictly adhered to.

xxix. Concrete plan of action for Enterprise Social Responsibility consisting 5 % of project cost shall be prepared in consultation with the District Authority and the local people and a mechanism for it monitoring should be worked out. Action plan shall be submitted to MoEF's RO Office for monitoring.

20.11.9 Training by M/s ONGC on Analysis of VOCs & HCs and Calibration of analytical equipment for measurement of VOCs and HCs

The Committee observed that values of VOCs and HCs presented by various PPs do not appear to be consistent and desired that the personnel engaged in analysis of VOCs & HCs require to be trained both in terms of analysis as well as calibration of the equipment they analyse with. The Committee requested M/s ONGC to undertake training programme region-wise (including for Consultants and for PPs engaged in the monitoring and analysis of enviroental data for preparation of EIA Report as well as in post project monitoring.

The meeting ended with a vote of thanks to the Chair.

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LIST OF PARTICIPANTS OF EAC (I) IN 20th MEETING OF EAC (INDUSTRY) HELD ON 23rd-24th June 2014

Expert Appraisal Committee (Industry) :			
1.	Shri M. Raman	Chairman	A
2.	Shri R.K. Garg	Vice-Chairman	P
3.	Prof. R.C. Gupta	Member	P
4.	Dr. Prem Shankar Dubey	Member	P
5.	Dr. R.M. Mathur	Member	P
6.	Dr. S. K. Dave	Member	P
7.	Dr. B. Sengupta	Member	P
8.	Shri Rajat Roy Choudhary	Member	A
9.	Dr. S.D. Attri	Member	A
10.	Dr. Antony Gnanamuthu	Member	P
11.	Prof. C. S. Dubey	Member	P
12.	Shri Niranjan Raghunath Raje	Member	P
MOEF Officials :			
13.	Dr. T.Chandini	Director & Member Secretary	
14.	Shri A.N. Singh	Joint Director	
15.	Shri Sundar Ramanathan	Deputy Director (23.06.2014)	

ANNEXURE -I

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

1. Executive summary *(maximum 2-3 sheets in A4 size paper)* of the project covering project description, description of the environment, anticipated environmental impacts & its mitigation measures, environmental management plan, environmental monitoring programme, public consultation, project benefits, Social impacts including R&R.
2. Site Details:
   i. Location of the project site covering village, Taluka/Tehsil, District and State on Indian map of 1:1000,000 scale.
   ii. A toposheet of the study area of radius of 10km and site location on 1:50,000/1:25,000 scale on an A3/A2 sheet.
   iii. Co-ordinates (lat-long) of all four corners of the site.
   iv. Google map-Earth downloaded of the project site.
   v. A map showing environmental sensitivity [land use/land cover, water bodies, reserved forests, wildlife sanctuaries, national parks, tiger reserve etc.] and from critically/severely polluted area(s) and Eco-sensitive Areas within 10km radius of the project site vis-à-vis shortest (aerial) distance from the project. If the project is located within 10km of CPAs/severely Polluted Areas, confirm whether moratorium has been imposed on the area.
   vi. Layout maps indicating existing unit as well as proposed unit indicating storage area, plant area, greenbelt area, utilities etc. In addition, if located within an Industrial area/Estate/Complex, layout of Industrial Area and location of unit within the Industrial area/Estate/Complex, layout of Industrial Area.
   vii. Photographs of the proposed and existing (if applicable) plant site. If existing, in addition to site map, provide photographs of plantation/greenbelt in the existing project. If fresh EC application, photographs
3. Landuse break-up of total land of the project site (identified and acquired) – agricultural, forest, wasteland, water bodies, settlements, etc shall be included.
4. A copy of the mutual agreement for land acquisition signed with land oustees.
5. Proposal shall be submitted to the Ministry for environment clearance only after acquiring at least 60% of the total land required for the project. Necessary documents indicating acquisition of land shall be included.
6. **Forest and wildlife related issues:**
   i. Permission and approval for the use of forest land (forestry clearance), if any, and recommendations of the State Forest Department.
   ii. Landuse map based on High resolution satellite imagery (GPS) of the proposed site delineating the forestland (*in case of projects involving forest land more than 40 ha)*
   iii. Status of Application submitted for obtaining the stage I forestry clearance along with latest status shall be submitted.
   iv. The projects to be located within 10 km of the National Parks, Sanctuaries, Biosphere Reserves, Migratory Corridors of Wild Animals, the project proponent shall submit the map duly authenticated by Chief Wildlife Warden showing these features vis-à-vis the project location and the recommendations or comments of the Chief Wildlife Warden-thereon
   v. Wildlife Conservation Plan duly authenticated by the Chief Wildlife Warden of the State Government for conservation of Schedule I fauna, if any exists in the study area
   vi. Copy of application submitted for clearance under the Wildlife (Protection) Act, 1972, to the Standing Committee of the National Board for Wildlife
7. **Expansion/modernization proposals:**
   i. Copy of all the Environmental Clearance(s) including Amendments thereto obtained for the project from MOEF/SEIAA shall be attached as an Annexure. A certified copy of the latest Monitoring Report of the

Regional Office of the Ministry of Environment and Forests as per circular dated 30th May, 2012 on the status of compliance of conditions stipulated in all the existing environmental clearances including Amendments should be provided. In addition, status of compliance of Consent to Operate for the ongoing /existing operation of the project from SPCB shall be attached with the EIA-EMP report.

ii. In case the existing project has not obtained environmental clearance, reasons for not taking EC under the provisions of the EIA Notification 1994 and/or EIA Notification 2006 shall be provided. Copies of Consent to Establish/No Objection Certificate and Consent to Operate (in case of units operating prior to EIA Notification 2006, CTE and CTO of FY 2005-2006) obtained from the SPCB shall be submitted. Further, compliance report to the conditions of consents from the SPCB shall be submitted.

Details of Industrial Operations

8. A list of major industries with name and type within study area (10km radius) shall be incorporated.
9. Details of proposed raw materials and products along with production capacity. If expansion project, details for existing unit, separately for existing and new (proposed) unit.
10. Details of manufacturing process, major equipment and machinery. If expansion project, details of existing unit, separately for existing and new (proposed) unit.
11. List of raw materials required and its source along with mode of transportation shall be included. All the trucks for raw material and finished product transportation must be "Environmentally Compliant".
12. Quantity of fuel required, its source and characteristics and documentary evidence to substantiate confirmed fuel linkage shall be furnished
13. Project site layout plan to scale using AutoCAD showing raw materials, fly ash and other storage plans, bore well or water storage, aquifers (within 1 km) dumping, waste disposal, green areas, water bodies, rivers/drainage passing through the project site shall be included.
14. Manufacturing process details of all the plants including captive power plant if any along with process flow chart shall be included.
15. Mass balance for the raw material and products shall be included.
16. Energy balance data for all the components of the plant shall be incorporated.

Environmental Status

17. Geological features and Geo-hydrological status of the study area shall be included.
18. Details of Drainage of the project upto 5km radius of study area. If the site is within 1 km radius of any major river, peak and lean river discharge as well as flood occurrence frequency based on peak rainfall data of the past 30 years. Details of RL of the project site and mRL of the river should also be provided.
19. One season site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall and AAQ data (except monsoon) at 8 locations for PM_{10}, $PM_{2.5}$, SO_2, NO_X, CO and HC (methane & non-methane) should be collected. The monitoring stations should take into account the pre-dominant wind direction, population zone and sensitive receptors including reserved forests.
20. Surface water quality of nearby River (60m upstream and downstream) and other surface drains at eight locations to be provided.
21. Ground water monitoring minimum at 8 locations shall be included.
22. Noise levels monitoring at 8 locations within the study area.
23. Traffic study of the area for the proposed project in respect of existing traffic, type of vehicles, frequency of vehicles for transportation of materials, additional traffic due to proposed project, parking arrangement etc.
24. 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.
25. Emissions (g/second) with and without the air pollution control measures.
26. Cumulative impact of all sources of emissions (including transportation) on the AAQ of the area shall be well assessed. Details of the model used and the input data used for modeling shall also be provided. The air

quality contours should be plotted on a location map showing the location of project site, habitation nearby, sensitive receptors, if any.

27. Impact of the transport of the raw materials and end products on the surrounding environment shall be assessed and provided. In this regard, options for transport of raw materials and finished products and wastes (large quantities) by rail or rail-cum road transport or conveyor-cum-rail transport shall be examined.
28. Details of water requirement, water balance chart for new unit or for existing unit as well as proposed expansion (in case of expansion).
29. Source of water supply and quantity and permission of withdrawal of water (surface/ground) from Competent Authority.
30. Details regarding quantity of effluents generated, recycled and reused and discharged to be provided. Methods adopted/to be adopted for the water conservation shall be included. Zero discharge effluent concepts to be adopted.
31. A note on treatment of wastewater from different plant operations, extent recycled and reused for different purposes shall be included. Complete scheme of effluent treatment. Characteristics of untreated and treated effluent to meet the prescribed standards of discharge under E(P) Rules.
32. Action plan for control of ambient air quality parameters as per NAAQES Standards for $PM_{10,}$ $PM_{2.5}$, SO_2 and NO_X, etc as per GSR 826(E) dated 16th November, 2009.
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. Action plan for solid/hazardous waste generation, storage, utilization and disposal. Copies of MOU regarding utilization of solid waste shall also be included. EMP shall include the concept of waste-minimization, recycle/reuse/recover techniques, Energy conservation, and natural resource conservation.
35. Proper utilization of fly ash shall be ensured as per Fly Ash Notification, 1999 and subsequent amendment in 2003 and 2009. A detailed plan of action should be provided.
36. 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.
37. 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.
38. 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.
39. Details of Rehabilitation & Resettlement (R & R) involving the project. R&R shall be as per policy of the State Govt. and a detailed action plan shall be included.
40. Action plan for post-project environmental monitoring shall be submitted.
41. Disaster Preparedness and Emergency Management Plan including Risk Assessment and damage control needs to be addressed and included.
42. <u>Occupational health:</u>
    i. 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,
    ii. Details of exposure specific health status evaluation of worker. If the workers' health is being evaluated by pre designed format, chest x rays, Audiometry, Spirometry, Vision testing (Far & Near

vision, colour vision and any other ocular defect) ECG, during pre placement and periodical examinations give the details of the same. Details regarding last month analyzed data of abovementioned parameters as per age, sex, duration of exposure and department wise.

iii. Annual report of heath status of workers with special reference to Occupational Health and Safety.

iv. Action plan for the implementation of OHS standards as per OSHAS/USEPA.

v. Plan and fund allocation to ensure the occupational health & safety of all contract and casual workers.

43. 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

44. 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.

45. 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 included. Socio-economic development activities need to be elaborated upon.

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

47. The questionnaire for industry sector (available on MOEF website) shall be submitted as an Annexure to the EIA-EMP Report.

48. '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.

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

50. 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 INTEGRATED STEEL PLANT

1. Iron ore/coal linkage documents along with the status of environmental clearance of iron ore and coal mines
2. Quantum of generation of coal and iron ore from coal & iron ore mines and the projects they cater to
3. For Large ISPs, 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.
4. Recent land-use map based on satellite imagery. High-resolution satellite image data having 1m-5m spatial resolution like quickbird, Ikonos, IRS P-6 pan sharpened etc. for the 10 Km radius area from proposed site. The same shall be used for land used/land-cover mapping of the area.
5. Respirable Suspended particulate matter (RSPM) present in the ambient air must be analysed for source analysis – natural dust/RSPM generated from plant operations (trace elements). The RSPM shall also be analysed for presence of poly-aromatic hydrocarbons (PAH), i.e. Benzene soluble fraction, where applicable. Chemical characterization of RSPM and incorporating of RSPM data.
6. 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, the AQIP Modelling shall be done using inputs of the specific terrain characteristics for determining the potential impacts of the project on the AAQ.
7. Presence of aquifer(s) within 1 km of the project boundaries and management plan for recharging the aquifer shall be included.
8. 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 based on peak rainfall data of the past 30 years. Details of RL of the project site and mRL of the river.
9. End use of solid waste and its composition shall be covered. Toxic metal content in the waste material and its composition particularly of slag should also be covered. A time bound action plan should be submitted to reduce solid waste, its proper utilization and disposal.
10. Proper utilization of fly ash shall be ensured as per Fly Ash Notification, 1999 and subsequent amendment in 2003 and 2009. All the fly ash should be provided to cement and brick manufacturers for further utilization.
11. Details of evacuation of ash, details regarding lining/impermeability of ash pond, if so details of the lining etc. need to be addressed.
12. All stock piles will have to be on top of a stable liner to avoid leaching of materials to ground water.
13. Plan for the implementation of the recommendations made for the steel plants in the CREP guidelines must be prepared.

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ANNEXURE-3

ADDITIONAL TORs FOR CEMENT INDUSTRY

1. Limestone and coal linkage documents along with the status of environmental clearance of limestone and coal mines
2. Quantum of generation of coal and limestone from coal & limestone mines and the projects they cater to;
3. For large Cement Units, a 3-D view i.e. DEM (Digital Elevation Model) for the area in 10 km radius from the proposal site.
4. Present land use shall be prepared based on satellite imagery. High-resolution satellite image data having 1m-5m spatial resolution like quickbird, Ikonos, IRS P-6 pan sharpened etc. for the 10 Km radius area from proposed site. The same shall be used for land used/land-cover mapping of the area.
5. 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. If within 10km of CPA, to indicate if the CPA is under moratorium.
6. If the raw materials used have trace elements, an environment management plan shall also be included.
7. Source analysis of Respirable Suspended Particulate Matter (RSPM) present in the ambient air for– natural dust/generated from plant operations (for eg. Cement dust)/flyash/coal dust/trace metals/etc. Chemical characterization of RSPM and incorporating of RSPM data.
8. 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, the AQIP Modelling shall be done using inputs of the specific terrain characteristics for determining the potential impacts of the project on the AAQ.
9. Presence of aquifer(s) within 1 km of the project boundaries and management plan for recharging the aquifer shall be included.
10. 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.
11. Details of storage of flyash, details regarding lining/impermeability of ash pond and whether it would be lined, if so details of the lining etc. need to be addressed.
12. Plan for the implementation of the recommendations made for the cement plants in the CREP guidelines must be prepared.

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ANNEXURE-4

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

1. Executive summary of a project
2. Project description, project objectives and project benefits.
3. Site details within 1 km of the each proposed well, any habitation, any other installation/activity, flora and fauna, approachability to site, other activities including agriculture/land, satellite imagery for 10 km area. All the geological details shall be mentioned in the Topo sheet of 1:40000 scale, superimposing the well locations and other structures of the projects.
4. Details of forest land involved in the proposed project. A copy of forest clearance letter, if applicable.
5. Distance from nearby critically/severely polluted area as per Notification, if applicable. Status of moratorium imposed on the area.
6. Does proposal involves rehabilitation and resettlement? If yes, details thereof.
7. Details of project cost.
8. 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.
9. 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.
10. Topography of the project site.
11. Action plan for ambient air quality parameters as per NAAQES Standards for $PM_{10,}$ $PM_{2.5}$, SO_2 and NO_X and Benzene, etc as per GSR 826(E) dated 16th November, 2009.
12. Details of Ambient Air Quality monitoring at 8 locations for PM_{10}, SO_2, NOx, VOCs, Methane and non-methane HC.
13. Soil sample analysis (physical and chemical properties) at the areas located at 5 locations.
14. Ground and surface water quality in the vicinity of the proposed wells site.
15. Climatology and Meteorology including wind speed, wind direction, temperature rainfall relative humidity etc.
16. Measurement of Noise levels within 1 km radius of the proposed wells.
17. Vegetation and land use; flora/fauna in the study area with details of endangered species, if any.
18. Incremental GLC as a result of DG set operation.
19. Potential environmental impact envisages during various stages of project activities such as site activation, development, operation/ maintenance and decommissioning.
20. Actual source of water and 'Permission' for the drawl of water from the Competent Authority. Detailed water balance, wastewater generation and discharge.
21. Noise abatement measures and measures to minimize disturbance due to light and visual intrusions in case coastally located.
22. Treatment and disposal of waste water.
23. Treatment and disposal of solid waste generation.
24. Disposal of spent oil and lube.
25. Storage of chemicals and diesel at site.
26. Commitment for the use of WBM only
27. Mud make up and mud and cutting disposal – all options considered shall be listed with selective option.
28. Hazardous material usage, storage accounting and disposal.
29. Disposal of packaging waste from site.
30. Oil spill emergency plans in respect of recovery/ reclamation.

31. H2S emissions control.
32. Produced oil handling and storage.
33. Details of scheme for oil collection system along with process flow diagram and its capacity.
34. Details of control of air, water and noise pollution in oil collection system.
35. Disposal of produced/formation water.
36. Whether any burn pits being utilised for well test operations.
37. Restoration and decommissioning plans which shall include mud pits and wastage restoration also and documentation and monitoring of site recovery.
38. Measures to protect ground water and shallow aquifers from contamination.
39. Risk assessment and disaster management plan for independent reviews of well designed construction etc. for prevention of blow out.
40. Environmental management plan.
41. Documentary proof of membership of common disposal facilities, if any.
42. 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.
43. Total capital and recurring cost for environmental control measures.
44. 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.
45. Any litigation pending against the project and or any direction/order passed by any court of law against the project. If so details thereof.
46. A tabular chart with index for point-wise compliance of above TORs.
47. Expansion/modernization proposals:
    i. Copy of all the Environmental Clearance(s) including Amendments thereto obtained for the project from MOEF/SEIAA shall be attached as an Annexure. A certified copy of the latest Monitoring Report of the Regional Office of the Ministry of Environment and Forests as per circular dated 30th May, 2012 on the status of compliance of conditions stipulated in all the existing environmental clearances including Amendments should be provided. In addition, status of compliance of Consent to Operate for the ongoing /existing operation of the project from SPCB shall be attached with the EIA-EMP report.
    ii. In case the existing project has not obtained environmental clearance, reasons for not taking EC under the provisions of the EIA Notification 1994 and/or EIA Notification 2006 shall be provided. Copies of Consent to Establish/No Objection Certificate and Consent to Operate (in case of units operating prior to EIA Notification 2006, CTE and CTO of FY 2005-2006) obtained from the SPCB shall be submitted. Further, compliance report to the conditions of consents from the SPCB shall be submitted.
48. CRZ clearance/ recommendation from State Coastal Zone Management Authority, if applicable.
49. Approval of 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.
50. 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 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.

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ANNEXURE-5

TERMS OF REFERENCE (TOR) FOR MANUFACTURING OF SYNTHETIC ORGANICS

1. A separate chapter on status of compliance of Environmental Conditions granted by State/Centre to be provided. As per circular dated 30th May, 2012 issued by MoEF, a certified report by RO, MoEF on status of compliance of conditions on existing unit to be provided in EIA/EMP report.
2. Executive summary of the project
3. Justification of the project.
4. Promoters and their back ground.
5. Regulatory framework.
6. Environment clearance for the existing unit issued by the Ministry (reasons, if not obtained), Consent to Operate and Authorization accorded by the APPCB.
7. Copy of NOC/Consent to Establish for the existing unit.
8. Compliance to the conditions stipulated in the NOC granted by the SPCB.
9. Has the unit received any notice under the Section 5 of Environment (Protection) Act, 1986 or relevant Sections of Air and Water Acts? If so, compliance to the notice(s).
10. Data for the stack emissions, fugitive emissions; water requirement and water balance chart; wastewater generation, treated effluent quality, re-utilization and disposal of solid/hazardous waste for the existing unit.
11. A map indicating location of the project and distance from severely polluted area.
12. Project location and plant layout.
13. Infrastructure facilities including power sources.
14. Total cost of the project alongwith total capital cost and recurring cost/annum for environmental pollution control measures.
15. Project site location alongwith site map of 10 km area and site details providing various industries, surface water bodies, forests etc.
16. Present land use based on satellite imagery for the study area of 10 km radius. Details of land availability for the project alongwith supporting document.
17. Location of National Park/Wild life sanctuary/Reserve forest within 10 km radius of the project.
18. Permission from the State Forest Department regarding the impact of the proposed plant on the surrounding reserve forests.
19. Details of the total land and break-up of the land use for green belt and other uses.
20. List of products alongwith the production capacities.
21. Detailed list of raw material required and source, mode of storage.
22. Manufacturing process details alongwith the chemical reactions and process flow chart.
23. Action plan for the transportation of raw material and products.
24. Site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall is necessary.
25. Ambient air quality monitoring at 6 locations within the study area of 5 km., aerial coverage from project site as per NAAQES notified on 16th September, 2009. Location of one AAQMS in downwind direction.
26. One season site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall and AAQ data (except monsoon) for PM2.5, PM_{10}, SO_2, NOx, CO, NH_3 including VOCs shall be collected. The monitoring stations shall take into account the pre-dominant wind direction, population zone and sensitive receptors including reserved forests. Data for water and noise monitoring shall also be included.
27. Details of water and air pollution and its mitigation plan
28. Air pollution control measures proposed for the effective control of gaseous/process emissions within permissible limits.
29. An action plan prepared by SPCB to control and monitor secondary fugitive emissions from all the sources.
30. Determination of atmospheric inversion level at the project site and assessment of ground level concentration of pollutants from the stack emission based on site-specific meteorological features. Air quality modelling for proposed plant.

31. Name of all the solvents to be used in the process and details of solvent recovery system.
32. Design details of ETP, incinerator, if any alongwith boiler, scrubbers/bag filters etc.
33. Action plan to control ambient air quality as per NAAQS Standards notified by the Ministry on 16th September, 2009.
34. Source and permission from Competent Authority for the drawl of 80 m3/day water. Water balance chart including quantity of effluent generated recycled and reused and effluent discharge.
35. Complete scheme of effluent treatment. Characteristics of untreated and treated effluent to meet the standard.
36. Zero discharge effluent concepts to be adopted.
37. Ground water quality monitoring minimum at 6 locations shall be carried out. Geological features and Geo-hydrological status of the study area and ecological status (Terrestrial and Aquatic).
38. The details of solid and hazardous wastes generation, storage, utilization and disposal particularly related to the hazardous waste calorific value of hazardous waste and detailed characteristic of the hazardous waste. Action plan for the disposal of fly ash generated from boiler shall be included.
39. Material Safety Data Sheet for all the Chemicals are being used/will be used.
40. Authorization/Membership for the disposal of solid/hazardous waste in TSDF.
41. Risk assessment for storage for chemicals/solvents. Action plan for handling & safety system.
42. An action plan to develop green belt in 33 % area. Layout plan for green belt shall be provided.
43. Action plan for rainwater harvesting measures at plant site shall be included to harvest rainwater from the roof tops and storm water drains to recharge the ground water.
44. Details of occupational health programme.
    a) To which chemicals, workers are exposed directly or indirectly.
    b) Whether these chemicals are within Threshold Limit Values (TLV)/ Permissible Exposure Levels as per ACGIH recommendation.
    c) What measures company have taken to keep these chemicals within PEL/TLV.
    d) How the workers are evaluated concerning their exposure to chemicals during pre-placement and periodical medical monitoring.
    e) What are onsite and offsite emergency plan during chemical disaster.
    f) Liver function tests (LFT) during pre-placement and periodical examination.
    g) Details of occupational health surveillance programme.
45. Socio-economic development activities shall be in place.
46. At least 5 % of the total cost of the project should be earmarked towards the Enterprise Social Commitment based on Public Hearing issues and item-wise details along with time bound action plan should be prepared and incorporated.
47. Note on compliance to the recommendations mentioned in the CREP guidelines.
48. Detailed Environment management Plan (EMP) with specific reference to details of air pollution control system, water & wastewater management, monitoring frequency, responsibility and time bound implementation plan for mitigation measure shall be provided.
49. EMP shall include the concept of waste-minimization, recycle / reuse / recover techniques, Energy conservation, and natural resource conservation.
50. Total capital cost and recurring cost/annum for environmental pollution control measures.
51. **Corporate Environmental Responsibility**
    (a) Does the company have a well laid down Environment Policy approved by its Board of Directors? If so, it may be detailed in the EIA report.
    (b) Does the Environmental Policy prescribe for standard operating process/procedures to bring into focus any infringement / deviation / violation of the environmental or forest norms / conditions? If so, it may be detailed in the EIA report.
    (c)What is the hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the EC conditions. Details of this system may be given.

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

52. Any litigation pending against the project and/or any direction/order passed by any Court of Law against the project, if so, details thereof.
53. 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 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.
54. The TORs prescribed shall be valid for a period of two years from date of issue for submission of the EIA-EMP reports along with Public Hearing Proceedings (wherever stipulated).

The following general points shall be noted:

ix. All documents shall be properly indexed, page numbered.
x. Period/date of data collection shall be clearly indicated.
xi. Authenticated English translation of all material in Regional languages shall be provided.
xii. The letter/application for environmental clearance shall quote the MOEF file No. and also attach a copy of the letter.
xiii. The copy of the letter received from the Ministry shall be also attached as an annexure to the final EIA-EMP Report.
xiv. The index of the final EIA-EMP report must indicate the specific chapter and page no. of the EIA-EMP Report
xv. 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.
xvi. 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.

ANNEXURE-6

TORS FOR SUGAR DISTILLERY WITH CPP/CO-GENERATION UNIT

1. Executive summary of the project.
2. Justification of the project
3. Detailed break-up of the land area along with latest photograph of the area.
4. Present land use based on satellite imagery and details of land availability for the project along with supporting document.
5. Details of site and information related to environmental setting within 10 km radius of the project site.
6. Information regarding eco-sensitive areas such as national park/wildlife sanctuary/ biosphere reserves within 10 km radius of project area.
7. Total cost of the project along with total capital cost and recurring cost/annum for environmental pollution control measures.
8. A copy of lease deed or allotment letter, if land is already acquired.
9. List of existing distillery units in the study area along with their capacity and sourcing of raw material.
10. Layout maps indicating existing unit as well as proposed unit indicating storage area, plant area, greenbelt area, utilities etc.
11. Details of proposed products along with manufacturing capacity.
12. Number of working days of the sugar unit, distillery unit and CPP.
13. Details of raw materials, its source with availability of all raw materials including cereal grains requirement in case of grain based distillery. If molasses based distillery, then give source and quantity available for molasses.
14. Manufacturing process details of Sugar , distillery and CPP along with process flow chart.
15. Sources and quantity of fuel (rice husk/bagasse/ 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.
16. Storage facility for raw materials, prepared alcohol, fuels and fly ash.
17. Action plan for ambient air quality parameters as per NAAQES Standards for $PM_{10,}$ $PM_{2.5}$, SO_2 and NO_X as per GSR 826(E) dated 16th November, 2009.
18. One season site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall and AAQ data (except monsoon) for PM_{10}, $PM_{2.5}$, SO_2, NO_X, CO and HC (methane & non methane) shall be collected. The monitoring stations should take into account the pre-dominant wind direction, population zone and sensitive receptors including reserved forests. Data for water and noise monitoring should also be included.
19. Mathematical modeling for calculating the dispersion of air pollutants and ground level concentration along with emissions from the boiler's stack.
20. An action plan to control and monitor secondary fugitive emissions from all the sources.
21. An action plan prepared by SPCB to control and monitor secondary fugitive emissions from all the sources.
22. Details of boiler and its capacity. Details of the use of steam from the boiler.
23. Ground water quality around proposed spent wash storage lagoon and the project area.
24. Details of water requirement, water balance chart for existing unit as well as proposed expansion (as applicable). Measures for conservation water by recycling and reuse to minimize the fresh water requirement.
25. Source of water supply and permission of withdrawal of water from Competent Authority.
26. Proposed effluent treatment system for grain/molasses based distillery (spent wash and spent lees) along with utility wastewater including CPP/Co-gen Unit (wherever applicable) as well as domestic sewage and scheme for achieving zero discharge. Details of treatment of effluent generation from sugar unit.
27. Spent wash generation should not exceed 8 KL/KL of alcohol production. Details of the spent wash treatment for molasses based distillery based distillery.

28. Capacity for spent wash holding tank and action plan to control ground water pollution.
29. Layout for storage of bagasse/biomass/coal.
30. Capacity for spent wash holding tank and action plan to control ground water pollution.
31. Dryer shall be installed to dry DWGS.
32. Layout for storage of rice husk/biomass/coal.
33. Details of solid waste management including management of boiler ash.
34. Risk assessment for storage and handling of alcohol and mitigation measure due to fire and explosion and handling areas.
35. 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.
36. 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.
37. List of flora and fauna in the study area.
38. Noise levels monitoring at five locations within the study area.
39. 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.
40. EMP should also include the concept of waste-minimization, recycle/reuse/ recover techniques, Energy conservation, and natural resource conservation.
41. Action plan for rainwater harvesting measures at plant site should be included to harvest rainwater from the roof tops and storm water drains to recharge the ground water.
42. Details of occupational health surveillance programme.
43. Details of socio-economic welfare activities.
44. Transportation of raw materials and finished products for the project (proposed/expansion) in respect of existing traffic, type of vehicles, frequency of vehicles for transportation of materials, additional traffic due to proposed project, parking arrangement etc.
45. Action plan for post-project environmental monitoring.
46. Corporate Environmental Responsibility
47. (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.
48. At least 5 % of the total cost of the project should be earmarked towards the Enterprise Social Commitment based on Public Hearing issues and item-wise details along with time bound action plan should be prepared and incorporated.
49. Total capital cost and recurring cost/annum for environmental pollution control measures.
50. Expansion/modernization proposals:

    i. Copy of all the Environmental Clearance(s) including Amendments thereto obtained for the project from MOEF/SEIAA shall be attached as an Annexure. A certified copy of the latest Monitoring Report of the Regional Office of the Ministry of Environment and Forests as per circular dated 30th May, 2012 on the status of compliance of conditions stipulated in all the existing environmental clearances including Amendments should be provided. In addition, status of compliance of Consent to Operate for the ongoing /existing operation of the project from SPCB shall be attached with the EIA-EMP report.

ii. In case the existing project has not obtained environmental clearance, reasons for not taking EC under the provisions of the EIA Notification 1994 and/or EIA Notification 2006 shall be provided. Copies of Consent to Establish/No Objection Certificate and Consent to Operate (in case of units operating prior to EIA Notification 2006, CTE and CTO of FY 2005-2006) obtained from the SPCB shall be submitted. Further, compliance report to the conditions of consents from the SPCB shall be submitted.

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

52. The EIA-EMP report for the project shall be based on the aforesaid TORs 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.

53. 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:

xvii. All documents shall be properly indexed, page numbered.

xviii. Period/date of data collection shall be clearly indicated.

xix. Authenticated English translation of all material in Regional languages shall be provided.

xx. The letter/application for environmental clearance shall quote the MOEF file No. and also attach a copy of the letter.

xxi. The copy of the letter received from the Ministry shall be also attached as an annexure to the final EIA-EMP Report.

xxii. The index of the final EIA-EMP report must indicate the specific chapter and page no. of the EIA-EMP Report

xxiii. 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.

xxiv. 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. 'Certificate of accreditation' issued by QCI to the environmental consultant should be included.

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ANNEXURE-7

GENERIC 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 has 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 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 shall be detailed in the EIA report.

48. Expansion/modernization proposals:

i. Copy of all the Environmental Clearance(s) including Amendments thereto obtained for the project from MOEF/SEIAA shall be attached as an Annexure. A certified copy of the latest Monitoring Report of the Regional Office of the Ministry of Environment and Forests as per circular dated 30th May, 2012 on the status of compliance of conditions stipulated in all the existing environmental clearances including Amendments should be provided. In addition, status of compliance of Consent to Operate for the ongoing /existing operation of the project from SPCB shall be attached with the EIA-EMP report.

ii. In case the existing project has not obtained environmental clearance, reasons for not taking EC under the provisions of the EIA Notification 1994 and/or EIA Notification 2006 shall be provided. Copies of Consent to Establish/No Objection Certificate and Consent to Operate (in case of units operating prior to EIA Notification 2006, CTE and CTO of FY 2005-2006) obtained from the SPCB shall be submitted. Further, compliance report to the conditions of consents from the SPCB shall be submitted.

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. A separate chapter on status of compliance of Environmental Conditions of Environmental Clearances 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 of all ECs on existing unit to be provided in EIA-EMP report.

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

52. 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.

53. 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 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 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. 'Certificate of accreditation' issued by QCI to the environmental consultant should be included.

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