

**RECONSTITUTED EXPERT APPRAISAL COMMITTEE  
DURING 4<sup>th</sup> April, 2013– 5<sup>th</sup> April, 2013**

**VENUE: Fazal, Scope Convention Centre, Scope Complex, Lodhi Road, New Delhi 110 003.**

**TIME 10.00 A.M.**

**7.0 Opening Remarks of the Chairman**

**7.1 Confirmation of the Minutes of the 6<sup>th</sup> Reconstituted Expert Appraisal Committee (Industry) held during 5<sup>th</sup> March, 2013– 7<sup>th</sup> March, 2013** – The minutes of the meeting held during 5-7<sup>th</sup> March, 2013 were confirmed.

**4<sup>th</sup> April, 2013**

**7.2.0 Consideration of the Projects:**

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

The Committee noted that the EIA/EMP report is prepared by M/s San Envirotech Pvt. Ltd. but presented by M/s EQMS. The Committee desired that the consultant presenting shall take ownership and cross verify the data for one month. The proposal was deferred till the additional information is submitted.

**7.2.2 Bulk Drug Unit at Sy. No. 544-546, Village & Mandal Bikanoor, District Nizamabad, Andhra Pradesh by M/s Virupaksha Organics Pvt. Ltd - regarding EC**

The project authorities and their consultant (M/s Pragathi Labs and 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 24<sup>th</sup> Meeting of the Expert Appraisal Committee (Industry) held during 22<sup>nd</sup>. 23<sup>rd</sup> June, 2011 for preparation of EIA/EMP report. All the Bulk Drug Units located outside the notified industrial estates are listed at S.N. 5(f) under Category A and appraised at the Central level.

M/s Virupaksha Organics Pvt. Ltd. have proposed for setting up of bulk drug unit at Sy. No. 544 to 546, Village & Mandal Bikanoor, District Nizamabad, Andhra Pradesh. Total plot area is 30 acres. No forest, national park or sanctuary is located within 10 km of the project site. Water body (village lake) is located at a distance of 4 km. Total cost of the project is Rs. 75.60 Crore. Following products will be manufactured:

S. N.	Product Name	Proposed Capacity			Product Usage
		KPD	TPM	TPA	
	<b>Units</b>				
1	Fexofenadine HCl	250.00	7.50	90.00	Bulk Drug
2	2-methy1-2-phenyl propane-1	166.67	5.00	60.00	Bulk Drug

	enylDiphenyl oxy butty1	133.33	4.00	48.00	Bulk Drug
4	A,a-dimethy1-4-(4-(4-(hydroxyl dipheny(methy1)-piperidiny1)-1-hydroxy buty1 phenyl acetic acid	133.33	4.00	48.00	Bulk Drug
5	Fluconazole	266.67	8.00	96.00	Bulk Drug
6	2,4-difluoro-2-(1H)-1, 2,4-triazol-1-yl-acetophenone	166.67	5.00	60.00	Bulk Drug
7	1· (2-(2,4-Difluoropheny1)-2,3-epoxy-propyl)-1H-1, 2,4-triazole methane sulfonate(epoxy)	166.67	5.00	60.00	Bulk Drug
8	Fluconzole Tech	166.67	5.00	60.00	Bulk Drug
9	Tramadol HCL	500.00	15.00	180.00	Bulk Drug
10	Citalopram Hydrobromide	100.00	3.00	36.00	Bulk Drug
11	Es-citalopram Hydrobromide	100.00	3.00	36.00	Bulk Drug
12	Setraline HCL	16.67	0.50	6.00	Bulk Drug
13	Atenolol	333.33	10.00	120.00	Bulk Drug
14	Sumatriptan Succinate	6.67	0.20	2.40	Bulk Drug
15	Flurbiprofen	22.22	0.67	8.00	Bulk Drug
16	Curcumin	27.78	0.83	10.00	Ayurvedi c Drug
17	Oleoresin	27.78	0.83	10.00	Ayurvedi c Drug
18	Capsaicin	2.778	0.083	1.00	Ayurvedi c Drug
19	Avobenzene	8.33	0.25	3.00	Cosmetic
20	Isoamy1 Methy1 Cinnamate	2.778	0.083	1.00	Cosmetic
	TOTAL	2626.12	78.78	945.4	
		6			

Additionally, PAs informed to the Committee that ambient air quality monitoring was carried out at 6 locations during October 2011 . December 2011 and submitted baseline data indicates that range of concentrations of  $PM_{10}$  ( $22.1 \mu\text{g}/\text{m}^3$  to  $49.9 \mu\text{g}/\text{m}^3$ ),  $SO_2$  ( $8.1 \mu\text{g}/\text{m}^3$  to  $20.5 \mu\text{g}/\text{m}^3$ ) and  $NO_x$  ( $10.0 \mu\text{g}/\text{m}^3$  to  $29.4 \mu\text{g}/\text{m}^3$ ) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed expansion would be  $0.08 \mu\text{g}/\text{m}^3$  ,  $2.0 \mu\text{g}/\text{m}^3$  and  $2.0 \mu\text{g}/\text{m}^3$  with respect to SPM,  $SO_2$  and  $NO_x$  respectively. Multicyclone dust collector followed by bagfilters will be provided to the coal fired boiler (8 TPH). Scrubbers will be provided to control process emissions. Total water requirement from the ground water source will be  $274 \text{m}^3/\text{day}$ . Industrial effluent generation will be  $100 \text{m}^3/\text{day}$ . The Committee noted that there is lack of clarity on the water balance in respect of boiler feed and cooling tower make up water as well as recycled water. Industrial effluent will be segregated into high TDS/COD effluent and low TDS/COD effluent stream. High TDS/COD effluent stream will be passed through steam stripper

or (MEE) and ATFD. Low TDS/COD effluent stream biological process followed by Reverse Osmosis. No de the plant premises and Zero discharge concept will be adopted. Project proponent confirmed that they have dropped captive landfill from the proposal and hazardous waste will be sent to the TSDF. Evaporated salt from MEE and ATFD will be sent to TSDF. Process organic residue, distillate bottom organic residue, spent carbon / hyflow will be sent to cement industry for incineration.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the A P Pollution Control Board on 6<sup>th</sup> June, 2012. The issues raised were regarding greenbelt area, local employment, CSR, avenue plantation, pollution control measures etc. and have satisfactorily been responded by the project proponent and incorporated in the final EIA/EMP report.

After detailed deliberations, the Committee sought the following additional information from the proponent for reconsideration:

- i. Revised water balance chart in respect of boiler feed water and cooling tower make up water. Quantity of total water requirement and its break up in respect of fresh water requirement and recycled water.
- ii. Action plan for disposal of fly ash.
- iii. Rain water harvesting plan to be provided.
- iv. Commitment to send hazardous waste to TSDF.
- v. Analysis report of coal quality w.r.t sulphur, ash and calorific value.
- vi. CSR plan to be submitted.

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

### 7.2.3 Manufacturing of Synthetic Organic Chemicals (800 TPM) at Shed , GIDC No C 1B/322/17, GIDC, Taluka Pardi, District Valsad, Gujarat by **M/s Siddhi Chlorexim Pvt. Ltd.- regarding EC**

The project authorities and their consultant (M/s Eco-Chem Sales & Services) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per Draft Terms of References (TORs) awarded during the 28<sup>th</sup> Meeting of the Expert Appraisal Committee (Industry) held during 20<sup>th</sup>. 21<sup>st</sup> October, 2011 for preparation of EIA/EMP report. All Synthetic Organic Chemicals Industry located inside the notified industrial area/estate are listed at S.N. 5(f) under category Bq However, applicability of general condition due to project location within interstate boundary, proposal is treated as category Aq and appraised by Expert Appraisal Committee (I).

M/s Siddhi Chloroexim Pvt. Ltd. have proposed for manufacturing of Synthetic Organic Material (800 TPM) at shed No C 1B/322/17, 40 Shed, Industrial area GIDC Vapi, Taluka Pardi, District Valsad, Gujarat. Total plot area is 922 m<sup>2</sup>. Out of which greenbelt will be developed in 200 m<sup>2</sup>. Interstate boundary (Daman) is located within 10 km. No national park/wildlife sanctuary/ecologically sensitive areas area located within 10 Km distance. Cost of the project is Rs. 150 Lakhs. Following products will be manufactured:

S.N.	Products	Capacity (TPM)
1	Epoxy Plasticizer (Epoxydised Soya bean Oil)	500
2	Methyl Soyate	300
<b>By- Products</b>		

hyl Soyate Product)	60 TPM
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as carried out at 6 locations during October 2011 .  
December 2011 and submitted data indicates as PM<sub>10</sub> (54.56. 86 ug/m<sup>3</sup>), PM<sub>2.5</sub> (32.56. 52.00 ug/m<sup>3</sup>), SO<sub>2</sub> (16.52 . 37 ug/m<sup>3</sup>) and NO<sub>x</sub> (12.50-26 ug/m<sup>3</sup>). Predicted value of ground level concentration due to proposed expansion is NO<sub>x</sub> (0.007 ug/m<sup>3</sup>) and SO<sub>2</sub> (0.054 ug/m<sup>3</sup>). The resultant concentrations are within the NAAQS. Stack (11 m) will be provided to natural gas fired boiler. Water requirement from GIDC water supply will be 12.5 m<sup>3</sup>/day. Industrial effluent generation will be 11.6 m<sup>3</sup>/day and treated in the ETP consisting primary, secondary and tertiary treatment. Treated effluent will be discharged to CETP for further treatment. ETP waste will be disposed off to TSDF. Used oil will be sold to registered recyclers. Power requirement from DGVCL will be 90 HP. DG set (1x125 KVA) will be installed.

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

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

- i) Adequate stack height should be provided to gas fired boiler.
- ii) The levels of PM<sub>10</sub>, SO<sub>2</sub>, NO<sub>x</sub>, CO and VOC should be monitored in ambient air.
- iii) Monitoring of work zone environment, product, raw materials storage area etc. should be regularly carried out and report submitted to Regional Office at Bhopal.
- iv) Total fresh water requirement from GIDC water supply should not exceed 12.5 m<sup>3</sup>/day and prior permission should be obtained from the Competent Authority. No ground water should be used.
- v) Total effluent generation should not exceed 11.6 m<sup>3</sup>/day. Effluent should be treated in ETP. Treated effluent should be discharged to CETP after conforming to the standards prescribed for the effluent discharge and obtaining permission from the GPCB. No process effluent shall be discharged in and around the project site.
- vi) Treated effluent should be passed through guard pond. Online pH meter, flow meter and TOC analyzer should be installed. Efforts shall be also made to explore the possibility of recycling/reuse of the treated effluent.
- vii) The company should obtain Authorization for collection, storage and disposal of hazardous waste under the Hazardous Waste (Management, Handling and Trans-Boundary Movement) Rules, 2008 and amended as on date for management of Hazardous wastes and prior permission from GPCB should be obtained for disposal of solid / hazardous waste in the TSDF. Measures should be taken for fire-fighting facilities in case of emergency.
- viii) Green belt should be developed in 200 m<sup>2</sup> out of total plant area.
- ix) All the recommendations made in the risk assessment report should be satisfactorily implemented.

...ance of the workers should be done on a regular as per the Factories Act.

**7.2.4 Drilling of Exploratory wells (9 wells, on-land), in Block RJ- ONN-2005/3 (1215 sq. km) District Jaisalmer Rajasthan by M/s Gujarat State Petroleum Corporation Ltd. - regarding EC**

The project authorities and their consultant (M/s Kadam Environment Consultants) 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 22<sup>nd</sup> Meeting of the Expert Appraisal Committee (Industry) held during 29<sup>th</sup>. 30<sup>th</sup> April, 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 Gujarat State Petroleum Corporation have proposed for the Drilling of Exploratory wells (9 wells, on land), in Block RJ-ONN-2005/3 (1215 sq.km), District Jaisalmer, Rajasthan. Block RJ-ONN-2005/3 was awarded under NELP-VII to GSPC. Production Sharing Contract (PSC) was signed with Government of India alongwith partner ONGC on 22<sup>nd</sup> December, 2008. Petroleum Exploration License (PEL) was signed on 13<sup>th</sup> July, 2009 to start exploration activities in the block. Total area of the block is 1217 sq.km. 9 exploratory wells will be drilled. No national park/wildlife sanctuary is located within 10 Km distance. No forest land is involved. Indira Gandhi Canal passes through the block area. BSF camps are located within the study area. Project cost is Rs. 108.00 Crore. Following are the co-ordinates of the block:

Point	Longitude			Latitude		
	Deg.	Min	Sec	Deg.	Min.	Sec
A	70	18	0.0	27	24	0.0
B	70	54	0.0	27	24	0.0
C	70	54	0.0	27	17	0.0
D	70	45	0.0	27	17	0.0
E	70	45	0.0	27	15	0.0
F	70	40	0.0	27	15	0.0
G	70	40	0.0	27	13	0.0
H	70	34	0.0	27	13	0.0
I	70	34	0.0	27	11	0.0
J	70	30	0.0	27	11	0.0
K	70	30	0.0	27	8	0.0
L	70	23	0.0	27	8	0.0
M	70	23	0.0	27	11	0.0
N	70	20	0.0	27	11	0.0
O	70	20	0.0	27	13	0.0
P	70	18	0.0	27	13	0.0
Q	70	18	0.0	27	24	0.0

Coordinates of the proposed wells to be drilled are as given below:

Well Name	Latitude (N)	Longitude (E)	Location Details (Nearest Village)
L-B	27°16'0.20+	70°20'16.80+	Sattarwadi Village (Tehsil Jaisalmer)



			& District Jaisalmer) at 6.34 km in N direction form well
		70°21'44.70+	Bandah Village (Tehsil Jaisalmer & District Jaisalmer) at 0.91 km in SSW direction
L-D	27°09'47.10+	70°25'41.60+	Khushiyala Village (Tehsil Jaisalmer & District Jaisalmer) at 1.8 km in South direction
L-E	27°19'45.00+	70°27'46.80+	Nechchi Village (Tehsil Jaisalmer & District Jaisalmer) at 4.34 km in SE direction
L-F	27°17'40.90+	70°29'41.00+	Nechchi Village (Tehsil Jaisalmer & District Jaisalmer) at 6.57 km in ESE direction
L-G	27°18'49.90+	70°25'48.90+	Nechchi Village (Tehsil Jaisalmer & District Jaisalmer) at 6.57 km in ESE direction
L-H	27°11'41.40+	70°27'48.80+	Unrai Village (Tehsil Jaisalmer & District Jaisalmer) at 1.85 km in SE direction
L-I	27°13'45.00+	70°28'46.10+	Nechchi Village (Tehsil Jaisalmer & District Jaisalmer) at 8.05 km in NNE direction
L-J	27°13'44.30+	70°22'49.90+	Darbhra Village (Tehsil Jaisalmer & District Jaisalmer) at 2.37 km in SW direction

Ambient air quality monitoring was carried out at 8 locations during December 2011 . March 2012 and submitted baseline data indicates that ranges of concentrations of PM<sub>10</sub> (25 µg/m<sup>3</sup> to 94 µg/m<sup>3</sup>), SO<sub>2</sub> (less than 8 µg/m<sup>3</sup> to 8.5 µg/m<sup>3</sup>) and NO<sub>x</sub> (10 µg/m<sup>3</sup> to 14 µg/m<sup>3</sup>) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.13 µg/m<sup>3</sup> and 4.08 µg/m<sup>3</sup> with respect to SPM, and SO<sub>2</sub> respectively. The resultant concentrations are within the NAAQS.

Air emissions from D.G. sets will be dispersed by providing adequate stack height. Fresh water requirement from tanker supply will be 20 m<sup>3</sup>/day. Water based mud (WBM) will be used. Wastewater generation during drilling operation will be 5 m<sup>3</sup>/day. Drilling mud and drill cuttings will be separated 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 30<sup>th</sup> August, 2005. Used oil will be sent to authorized recyclers. DG set (440 KVA) will be installed for rig operation purpose. Dg set (40 KVA) will be used for lightening purpose.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the Rajasthan State Pollution Control Board on 22<sup>nd</sup> August, 2018. The issues raised during public hearing were impact of project on surroundings, pollution due to drilling activities, CSR activities, local

atisfactorily been responded by the project proponent  
EMP report.

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

- i. Clearance from the Ministry of Defense/Home Affairs or any other department shall be obtained, as applicable.
- ii. Gas produced during testing shall be flared with appropriate flaring booms. The flare system shall be designed as per good oil field practices and Oil Industry Safety Directorate (OISD) guidelines. The stack height shall be provided as per the regulatory requirements and emissions from stacks will meet the MOEF/CPCB guidelines.
- iii. Ambient air quality shall be monitored at the nearest human settlements as per the National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16<sup>th</sup> November, 2009 for PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub>, NO<sub>x</sub>, CO, CH<sub>4</sub>, Non-methane HC etc.
- iv. Approach road shall be made pucca to mitigate generation of suspended dust.
- v. The company shall make the arrangement for control of noise from the drilling activity. Acoustic enclosure should be provided to DG sets and proper stack height should be provided as per CPCB guidelines.
- vi. Total fresh water requirement shall not exceed 20 m<sup>3</sup>/day/well and prior permission shall be obtained from the Competent Authority.
- 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 Lucknow.
- 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

gy. The recyclable waste (oily sludge) and spent oil shall be disposed of by 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 30<sup>th</sup> 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<sub>2</sub>S release including all necessary aspects from evacuation to resumption of normal operations. The workers shall be provided with personal H<sub>2</sub>S 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 should take measures after completion of drilling process by well plugging and secured enclosures, decommissioning of rig upon abandonment of the well and drilling site 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. Restoration of the project site shall be carried out satisfactorily and report should be sent to the Ministry Regional Office at Lucknow
- xviii. Occupational health surveillance of the workers shall be carried out as per the prevailing Acts and Rules.
- xix. 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.
- xx. Oil content in the drill cuttings shall be monitored by some Authorized agency and report shall be sent to the Ministry Regional Office at Lucknow.



Responsibility (CSR), sufficient budgetary provision for improvement, education, water and electricity supply project.

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

**7.2.5 Expansion of Dyes Intermediates (8.8 TPM to 185 TPM) at Plot No. 316, 40 shed area, GIDC Vapi, Taluka Pardi, District Valsad, Gujarat by M/s Centre Point Industries.- regarding EC**

The project authorities and their consultant (Eco-Chem Sales & Service) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per Draft Terms of References (TORs) awarded during the 29<sup>th</sup> Meeting of the Expert Appraisal Committee (Industry) held during 17<sup>th</sup>, 18<sup>th</sup> November, 2011 for preparation of EIA/EMP report. All Synthetic Organic Chemicals Industry located inside the notified industrial area/estate are listed at S.N. 5(f) under category Bq However, applicability of general condition due to project location within interstate boundary, proposal is treated as category Aq and appraised by Expert Appraisal Committee (I).

M/s Centre Point Industries have proposed for the expansion of Dyes Intermediates (from 8.8 TPM to 185 TPM) at Plot No. 316, 40 Shed area, GIDC Vapi, Taluka Pardi, District Valsad, Gujarat. Total plot area is 3010 m<sup>2</sup> and no additional land is required. Project cost for expansion is 80.35 Lakhs. Plot is located within 10 km from interstate boundary (i.e. Daman). Damanganga river is flowing at a distance of 3.0 km. Arabian Sea is located at a distance of 15 km. No wildlife sanctuary/national park/reserve forest is located within 10 Km distance. A copy of consent to operate accorded by the GPCB vide consent order no. 30649 dated 6<sup>th</sup> September, 2008 point-wise compliance report is submitted. Project proponent has confirmed that the existing is in operation for last 15 years and at that time activities of the existing unit do not attract environmental clearance. Following products will be manufactured:

S. N.	Products	Quantity (TPM)			Remark
		Existing	Proposed	Total	
1.	Peri Acid	6.4	11.6	18.0	Expansion of existing product
2.	Laurent Acid	2.4	9.6	12.0	Expansion of existing product
3.	Mixed Cleavage Acid	0	15	15	New product
4.	1:8 naphtha Sultone	0	5	5	New product
5.	Naphthalene mixed di sulphonic acid	0	25	25	New product
6.	ParaAmino Azo Benzene 3:4 Di Sulphonic acid	0	15	15	New product
7.	Rhoduline Acid (Di-J Acid or RW Acid)	0	5	5	New product
8.	Phenyl Peri Acid	0	10	10	New product

		0	5	5	New product
		0	20	20	New product
		0	20	20	New product
12.	3:3 Di Amino Di phenyl Sulphone	0	15	15	New product
13.	Sulpho J Acid	0	20	20	New product
<b>Total</b>		<b>8.8</b>	<b>176.2</b>	<b>185.0</b>	

Additionally, PAs informed the Committee that ambient air quality monitoring was carried out at 6 locations during October, 2011 to February, 2012 and submitted baseline data indicates that ranges of concentrations of PM<sub>10</sub> (59.70 µg/m<sup>3</sup> to 89.16 µg/m<sup>3</sup>), PM<sub>2.5</sub> (35.62 µg/m<sup>3</sup> to 53.16 µg/m<sup>3</sup>), SO<sub>2</sub> (20 µg/m<sup>3</sup> to 34.32 µg/m<sup>3</sup>) and NO<sub>x</sub> (18.54 µg/m<sup>3</sup> to 24.72 µg/m<sup>3</sup>) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed expansion would be 0.38 µg/m<sup>3</sup> and 0.024 µg/m<sup>3</sup> with respect to SO<sub>2</sub> and NO<sub>x</sub>. The resultant concentrations are within the NAAQS.

Stack height (11 m) will be provided to gas fired boiler. Acid followed by two stage alkali scrubber will be provided to oleum storage, sulphonator and nitrator. Fresh water requirement from GIDC water supply will be increased from 6.8 m<sup>3</sup>/day to 44.81 m<sup>3</sup>/day. Industrial effluent will be increased from 5.3 m<sup>3</sup>/day to 38.25 m<sup>3</sup>/day. High TDS effluent (30.25 m<sup>3</sup>/day) will be concentrated in MEE. Low COD/TDS effluent (8 m<sup>3</sup>/day) will be treated in ETP and treated effluent will be discharged to CETP Vapi for ultimate disposal into Arabian Sea. Iron waste and gypsum waste will be sold to cement plant/sent to TSDF. ETP sludge, concentrated salt and Hyflow/used carbon will be sent to TSDF. Used oil will be sold to registered recycler/re-processors. Total power requirement from Dakshin Gujarat Vij Company Ltd. (DGVCL) will be 160 HP. DG set (2 x250 KVA) will be installed. Natural gas (1770 SCM/day) and HSD (20 KPH) will be used as fuel. Greenbelt will be developed in 605 m<sup>2</sup> of land out of total plant area 3010 m<sup>2</sup>.

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

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

- i) Adequate stack height should be provided to gas fired boiler/thermopack.
- ii) The levels of PM<sub>10</sub>, SO<sub>2</sub>, NO<sub>x</sub>, CO and VOC should be monitored in ambient air.
- iii) Scrubber will be provided to oleum storage, sulphonator and nitrator. At no time, the emission levels should go beyond the prescribed standards.
- iv) 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.
- v) Prior permission for total fresh water requirement from GIDC water supply should be obtained. The water consumption should not exceed 45 m<sup>3</sup>/day. No ground water should be used.

- eration should not exceed 38.25 m<sup>3</sup>/day. Effluent in ETP. High TDS effluent (30.25 m<sup>3</sup>/day) will be DD/TDS effluent stream (8 m<sup>3</sup>/day) will be treated in ETP and treated effluent should be discharged to CETP after conforming to the standards prescribed for the effluent discharge and obtaining permission from the GPCB. No process effluent shall be discharged in and around the project site. Efforts shall be made to treat ammonical nitrogen in the effluent.
- vii) Treated effluent should be passed through guard pond. Online pH meter, flow meter and TOC analyzer should be installed. Efforts shall be also made to explore the possibility of recycling/reuse of the treated effluent.
  - viii) 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.
  - ix) Management plan for disposal of iron waste, gypsum waste and spent acid alongwith implementation schedule should be submitted to the Regional Office, Bhopal within 3 months from the date of issue of letter.
  - x) Green belt should be developed in in 605 m<sup>2</sup> out of total plant area.
  - xi) All the recommendations made in the risk assessment report should be satisfactorily implemented.
  - xii) Occupational health surveillance of the workers should be done on a regular basis and records maintained as per the Factories Act.

#### 7.2.6 Drilling of Exploratory Wells (8 Nos) offshore in Kutch Saurashtra Offshore Block GK-OSN-2009/1 in West coast of India by **M/s Oil and Natural Gas Corporation (ONGCL) - regarding EC.**

The project authorities 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 25<sup>th</sup> Meeting of the Expert Appraisal Committee (Industry) held during 28<sup>th</sup>. 30<sup>th</sup> July, 2011 for preparation of EIA/EMP report. All the offshore drilling projects for oil & gas are listed at S.N. 1(b) under Category A and appraised at the Central level.

M/s. Oil and Natural Gas Corporation have proposed for the Drilling of Exploratory Wells (8 Nos) offshore in Kutch Saurashtra Offshore Block GK-OSN-2009/1 in West Coast of India. Project is located beyond 12 nautical miles from the coast line. 6 Exploratory wells will be drilled. In case of hydrocarbon discovery, 2 more exploratory wells will be drilled. Project is located in Kutch offshore area having an area of 1264 sq.km. Water depth ranges from >1 m to 25 m approx. The Block was awarded w.e.f. 5.8.2010 to ONGC as operator. The participating interest of ONGC is 40% and JV partners M/s GSPCL, AWEL & IOC with participating interest of 20% each. No sensitive areas such as coral reef, marine water park, sanctuary

area is located within 10 Km of distance. Project construction/operation activities will be carried out on the coastline. Total project cost is Rs. 600 Crore. Depth of wells will be around 3000 m . 4000 m. Water based mud will be used. Synthetic oil based mud (SOBM) will be used only to combat specific hole problems, if required. Following are the co-ordinates of the Block:

Point	Latitude			Longitude		
	Deg.	Min.	Sec	Deg.	Min.	Sec
A	23	27	05	68	14	00
B	23	27	05	68	23	45
C	22	54	28	68	23	40
D	22	54	06	68	07	50
E	23	00	00	68	10	00
A	23	27	05	68	14	00

Air emissions from D.G. sets will be controlled by providing adequate stack height. Gas production during testing will be flared. Total water requirement will be 40 m<sup>3</sup>/day. The drilling mud carrying cutting will be separated and recycled maximum extent and non usable portion will be discharged intermittently in sea with proper dilution as per MARPOL standards. Domestic effluent will be treated in sewage treatment plant (STP) provided at the rig. Waste oil and grease will be collected in barrels and trash and will be brought to shore and handed over to authorized recyclers. Blow out preventer will be pressure tested regularly in order to maintain its capability of carrying out its intended functions.

The Committee noted that the public hearing is not required as project site is located in off-shore.

After detailed deliberations, the Committee found the submitted EIA/EMP report satisfactory and suggested to stipulate following specific conditions alongwith 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. Gas produced during testing shall be flared with appropriate flaring booms.
- iii. 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.
- iv. Total water requirement shall not exceed 40 m<sup>3</sup>/day/well and prior permission shall be obtained from the Competent Authority for the drawl of water. Only water based mud system shall be used.
- v. 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 30<sup>th</sup> August, 2005.

- ...e that there shall be no impact on flora fauna due to ... offshore sea. The company shall undertake ... 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.
- vii. 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.
  - viii. 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.
  - ix. 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 30<sup>th</sup> August, 2005. Different types of wastes shall be kept segregated.
  - x. 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.
  - xi. 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.
  - xii. A waste minimisation plan shall be developed and followed through proper inventory management following best practices in drilling operations, good house keeping practices and optimised equipment maintenance schedules.
  - xiii. 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.
  - xiv. 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.
  - xv. 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.
  - xvi. Approval from DG Shipping under the Merchant Shipping Act prior to commencement of the drilling operations shall be obtained. At least 30 days



nt of drilling, the exact location shall be intimated to Shipping and the Company shall abide by any regarding ensuring the safety of navigation in the area.

- xvii. The International ~~Good~~ Practices adopted by the Petroleum Industry following International norms to safeguard the coastal and marine biodiversity shall be implemented by the company.
- xviii. 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.
- xix. 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.
- xx. The project proponent shall also comply with the environmental protection measures and safeguards recommended in the EIA /EMP/RA/NIO report.
- xxi. 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 within 3 months of the issue of environment clearance.
- xxii. 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.
- xxiii. 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 Bhopal.
- xxiv. Petroleum and Natural Gas (Safety in Offshore Operations) Rules 2008 of OISD should be strictly adhered to.
- xxv. Recommendations mentioned in the Risk Assessment & Consequence Analysis and Disaster Management Plan shall be followed.
- xxvi. 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 alongwith the implementation schedule for all the conditions stipulated herein. The funds so provided shall not be diverted for any other purposes.
- xxvii. An independent audit shall be done to ensure that the Environment Management Plan is in place in totality.

Wells (7 Nos) offshore in Kutch Saurashtra Offshore West Coast of India by **M/s Oil and Natural Gas** regarding EC

The project authorities 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 25<sup>th</sup> Meeting of the Expert Appraisal Committee (Industry) held during 28<sup>th</sup>. 30<sup>th</sup> July, 2011 for preparation of EIA/EMP report. All the offshore drilling projects for oil & gas are listed at S.N. 1(b) under Category A and appraised at the Central level.

M/s. Oil and Natural Gas Corporation have proposed for the Drilling of Exploratory Wells (7 Nos) offshore in Kutch Saurashtra Offshore Block GK-OSN-2009/2 in West Coast of India. 5 Exploratory wells will be drilled. In case of hydrocarbon discovery, 2 more exploratory wells will be drilled. All the proposed drilling will be carried out at locations beyond 5 Km from the coastal line. Project is located in Kutch offshore area having an area of 1242 sq.km. Water depth ranges from >1 m to 25 m approx. The Block was awarded w.e.f. 5.8.2010 to ONGC as operator. The participating interest of ONGC is 40% and JV partners M/s GSPCL, AWEL & IOC with participating interest of 20% each. No sensitive areas such as coral reef, marine water park, sanctuary and any other eco-sensitive area is located within 10 Km of distance. However, the nearest drilling well S2-4 is located at a distance of 19 Km from Eco-fragile zone of Narayan Sarovar Wildlife Sanctuary. The well S2 -1 is located at distance of 12.5 Km from the active turtle nesting site at Kamond-Suthri Coastal area. Project proponent has confirmed that no construction/operation activities will be carried out between LTL and HTL and on the coastline. Wells proposed between 7 to 26 Km from coast (LTL). Total project cost is Rs. 580 Crore. Depth of wells will be around 4200 m. Water based mud will be used. Synthetic oil based mud (SOBM) will be used only to combat specific hole problems, if required. Following are the co-ordinates of the Block:

Pt	Latitude			Longitude		
	Deg.	Min.	Sec	Deg.	Min.	Sec
A	23	27	05	68	23	45
B	23	10	00	68	35	9.27
C	22	03	00	68	45	00
D	22	54	28	68	45	00
E	23	54	28	68	23	40
A	23	27	05	68	23	45

Air emissions from D.G. sets will be controlled by providing adequate stack height. Gas production during testing will be flared. Total water requirement will be 40 m<sup>3</sup>/day. The drilling mud carrying cutting will be separated and recycled maximum extent and non usable portion will be discharged intermittently in sea with proper dilution as per MARPOL standards. Domestic effluent will be treated in sewage treatment plant (STP) provided at the rig. Waste oil and grease will be collected in barrels and trash and will be brought to shore and handed over to authorized recyclers. Blow out preventer will be pressure tested regularly in order to maintain its capability of carrying out its intended functions.

The Committee noted that the public hearing is not required as project site is located in off-shore.

ns, the Committee found the submitted EIA/EMP  
d to stipulate following specific conditions alongwith  
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. Gas produced during testing shall be flared with appropriate flaring booms.
- iii. 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.
- iv. Total water requirement shall not exceed 40 m<sup>3</sup>/day/well and prior permission shall be obtained from the Competent Authority for the drawl of water. Only water based mud system shall be used.
- v. 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 30<sup>th</sup> August, 2005.
- vi. 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.
- vii. 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.
- viii. 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.
- ix. 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 30<sup>th</sup> August, 2005. Different types of wastes shall be kept segregated.
- x. 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.
- xi. 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.

Plan shall be developed and followed through proper following best practices in drilling operations, good and optimised equipment maintenance schedules.

- xiii. 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.
- xiv. 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.
- xv. 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.
- xvi. 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.
- xvii. The International ~~Good~~ Practices adopted by the Petroleum Industry following International norms to safeguard the coastal and marine biodiversity shall be implemented by the company.
- xviii. 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.
- xix. 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.
- xx. The project proponent shall also comply with the environmental protection measures and safeguards recommended in the EIA /EMP/RA/NIO report.
- xxi. 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 within 3 months of the issue of environment clearance.
- xxii. 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

to the Ministry indicating the steps taken i.e. whether for abandoned and necessary precautions taken.

- xxiii. 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 Bhopal.
- xxiv. Petroleum and Natural Gas (Safety in Offshore Operations) Rules 2008 of OISD should be strictly adhered to.
- xxv. Recommendations mentioned in the Risk Assessment & Consequence Analysis and Disaster Management Plan shall be followed.
- xxvi. 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 alongwith the implementation schedule for all the conditions stipulated herein. The funds so provided shall not be diverted for any other purposes.
- xxvii. An independent audit shall be done to ensure that the Environment Management Plan is in place in totality.

**7.2.8 Active Pharmaceutical Ingredients (APIs), Intermediates and Formulations at Plot No. 11, KIADB Industrial Area, Phase I, Jigani Anekal Taluk, Bangalore South, Karnataka by M/s Sequent Penems Pvt. Ltd. - regarding EC.**

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

**7.2.9 Expansion of Rubber Processing Chemicals Manufacturing Unit (from 85 MTPM to 225 MTPM) at GIDC Vapi, District Valsad, Gujarat by M/s PIL Chemicals Pvt. Ltd. -regarding TOR**

The project authorities and their consultant (Eco Chem Sales & Service, Surat) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken alongwith the draft Term of References for the preparation of EIA/EMP report. All Synthetic Organic Chemicals Industry located inside the notified industrial area/estate are listed at S.N. 5(f) under category Bq However, project site is located within 10 Km of interstate boundary and treated as category Aqproject due to applicability of general condition of the EIA notification, 2006 and appraised at Central level.

M/s PIL Chemicals Pvt. Ltd. have proposed for expansion of Rubber Processing Chemicals Manufacturing Unit (from 85 MTPM to 225 MTPM) at Plot No. 1207, 3<sup>rd</sup> Phase, GIDC Vapi, District Valsad, Gujarat. Total plot area is 10000 m<sup>2</sup>. Out of which greenbelt will be developed in 1115 m<sup>2</sup>. Cost of expansion project is Rs. 3.0 Crore. No court case is pending against the project. Following products will be manufactured:

S.N.	Product	Quantity (MTPM)
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		Existing	Additional	After Expansion
1	DHTS	42.5	57.5	100
2	CBS/DCBS	42.5	82.5	125
Total		85	140	225

Multicyclone separator followed by bagfilter will be installed to boiler. Dust collector bag filter will be provided to fluidized bed dryer. Scrubber will be provided to DHTS basification reactor to control process emissions. Water requirement from GIDC water supply will be increased from 87 m<sup>3</sup>/day to 238 m<sup>3</sup>/day. Industrial effluent generation will be increased from 43 m<sup>3</sup>/day to 120 m<sup>3</sup>/day. Industrial effluent will be treated in ETP and treated effluent will be discharged into CETP. ETP sludge will be sent to TSDF. Used oil will be sent to registered recyclers/re-processors. Distillation residue will be sent to cement industry.

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

1. A separate chapter on status of compliance of Environmental Conditions granted by State/Centre to be provided. As per circular dated 30<sup>th</sup> May, 2012 issued by MoEF, a certified report by RO, MoEF on status of compliance of conditions on existing unit to be provided in EIA/EMP report.
2. Executive summary of the project
3. Justification of the project.
4. Promoters and their back ground.
5. Regulatory framework.
6. Environment clearance for the existing unit issued by the Ministry (reasons, if not obtained), Consent to Operate and Authorization accorded by the GPCB.
7. 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.
8. A copy of Gazette Notification issued by the Govt. of Gujarat indicating location of the project in notified GIDC should be included necessarily.
9. Project location and plant layout.
10. Infrastructure facilities including power sources.
11. Total cost of the project alongwith total capital cost and recurring cost/annum for environmental pollution control measures.
12. Project site location alongwith site map of 10 km area and site details providing various industries, surface water bodies, forests etc.
13. 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.
14. Location of National Park/Wild life sanctuary/Reserve forest within 10 km radius of the project.
15. Permission from the State Forest Department regarding the impact of the proposed plant on the surrounding reserve forests.
16. Details of the total land and break-up of the land use for green belt and other uses.
17. List of products alongwith the production capacities.
18. Detailed list of raw material required and source, mode of storage.
19. Manufacturing process details alongwith the chemical reactions and process flow chart.

- transportation of raw material and products.
- meteorological data using temperature, relative humidity, direction and rainfall is necessary.
22. Ambient air quality monitoring at 6 locations within the study area of 5 km., aerial coverage from project site as per NAAQES notified on 16<sup>th</sup> September, 2009. Location of one AAQMS in downwind direction.
  23. 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<sub>10</sub>, SO<sub>2</sub>, NO<sub>x</sub>, CO including VOCs shall be collected. The monitoring stations shall take into account the pre-dominant wind direction, population zone and sensitive receptors including reserved forests. Data for water and noise monitoring shall also be included.
  24. Air pollution control measures proposed for the effective control of gaseous/process emissions within permissible limits.
  25. Name of all the solvents to be used in the process and details of solvent recovery system.
  26. Design details of ETP, incinerator, if any alongwith boiler, scrubbers/bag filters etc.
  27. Details of water and air pollution and its mitigation plan.
  28. Action plan to control ambient air quality as per NAAQS Standards notified by the Ministry on 16<sup>th</sup> September, 2009.
  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. Permission from competent Authority for the drawl of water. Water balance chart for existing and expansion project including quantity of effluent generated recycled and reused and effluent discharge.
  32. Attempt to be made for reduction for usage of water.
  33. Complete scheme of effluent treatment. Characteristics of untreated and treated effluent to meet the standard.
  34. Zero discharge effluent concepts to be adopted.
  35. 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).
  36. 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.
  37. Precautions to be taken during storage and transportation of hazardous chemicals shall be clearly mentioned and incorporated.
  38. Material Safety Data Sheet for all the Chemicals are being used/will be used. CAS No./RTECS No./DOT/UN etc to be mentioned against each chemicals.
  39. Authorization/Membership for the disposal of solid/hazardous waste in TSDF.
  40. Risk assessment for storage for chemicals/solvents. Action plan for handling & safety system.
  41. An action plan to develop green belt in 33 % area. Layout plan for green belt shall be provided.
  42. 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.
  43. Details of occupational health programme.
    - i) To which chemicals, workers are exposed directly or indirectly.

chemicals are within Threshold Limit Values (TLV)/  
Levels as per ACGIH recommendation.  
any have taken to keep these chemicals within

PEL/TLV.

- iv) How the workers are evaluated concerning their exposure to chemicals during pre-placement and periodical medical monitoring.
  - v) What are onsite and offsite emergency plan during chemical disaster.
  - vi) Liver function tests (LFT) during pre-placement and periodical examination.
44. Details of occupational health surveillance programme.
  45. Socio-economic development activities shall be in place.
  46. Note on compliance to the recommendations mentioned in the CREP guidelines.
  47. Detailed Environment management Plan (EMP) with specific reference to details of air pollution control system, water & wastewater management, monitoring frequency, responsibility and time bound implementation plan for mitigation measure shall be provided.
  48. EMP shall include the concept of waste-minimization, recycle / reuse / recover techniques, Energy conservation, and natural resource conservation.
  49. Total capital cost and recurring cost/annum for environmental pollution control measures.
- 50. Corporate Environmental Responsibility**
- (a) Does the company have a well laid down Environment Policy approved by its Board of Directors? If so, it may be detailed in the EIA report.
  - (b) Does the Environmental Policy prescribe for standard operating process/procedures to bring into focus any infringement / deviation / violation of the environmental or forest norms / conditions? If so, it may be detailed in the EIA report.
  - (c) What is the hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the EC conditions. Details of this system may be given.
  - (d) Does the company have a system of reporting of non compliance / violations of environmental norms to the Board of Directors of the company and / or shareholders or stakeholders at large? This reporting mechanism should be detailed in the EIA report.
51. Any litigation pending against the project and/or any direction/order passed by any Court of Law against the project, if so, details thereof.
  52. A tabular chart with index for point wise compliance of above TORs.

The following general points shall be noted:

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

on issued by the QCI to the environmental consultant

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

**7.2.10 Expansion of Kraft Paper Manufacturing Unit (from 65 TPD to 115 TPD) and optional use of coal as fuel for CPP (6 MW) at Village Shahganj, Tehsil Kashipur, District Udham Singh Nagar, Uttarakhand by M/s Siddheshwari Paper Udyog Ltd. - regarding TORs.**

The project authorities and their consultant ( JM Environnet Pvt. Ltd.) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken alongwith the draft Term of References for the preparation of EIA/EMP report. The Committee noted that unit was to carry out modification/upgradation in the existing ETP to improve the water quality of treated effluent. However, project proponent was unable to explain the progress status of the same. Therefore the Committee desired following additional information :

- i) Water balance chart of the existing project as well as expansion indicating raw water input, loss and effluent generation.
- ii) Water quality of raw intake water to be submitted. Wastewater characteristics of untreated and treated effluent.
- iii) Copy of Consent to establish and consent to operate alongwith point wise compliance report.
- iv) Details of showcause notices/directions issued by the SPCB/CPCB alongwith action taken report.
- v) Process scheme of the existing and proposed effluent treatment plant including techno-economic feasibility study of ETP.
- vi) Status of modification/upgradation in the existing ETP alongwith actual photographs
- vii) Status of chemical recovery unit.
- viii) Ash disposal action plan to be submitted.

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

**7.2.11 Sugar Plant (5000 TCD), Cogeneration Power Plant (25 MW) and Molasses based Distillery Unit (60 KLPD) at Village Turk Pimpari, Tehsil Barshi, District**

by M/s Indian Sugar Manufacturing Company  
TORs.

The project authorities gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken alongwith the draft Term of References for the preparation of EIA/EMP report. All molasses based distillery and cane juice/non-molasses based distillery (>30 KLD) are listed at S.N. 5(g) (i) (ii) under category A and appraised at Central level.

M/s Indian Sugar Manufacturing Company Ltd. (Unit-2) have proposed for setting up of Sugar Plant (5000 TCD), Cogeneration Power Plant (25 MW) and Molasses based Distillery Unit (60 KLPD) at Gat No. 160, Village Turk Pimpri, Tehsil Barshi, District Solapur, (Maharashtra). No forest land is involved. No court case/litigation is pending against the project proposal. Total plot area is 116 acres. No wild life sanctuary or protected area is located within 10 Km. ESP along with stack height (65 m) will be provided to boiler (140 TPH). ESP alongwith stack (50 m) will be provided to incineration boiler to control particulate emission. Fresh water requirement for the sugar unit and CPP will be 172 m<sup>3</sup>/day. Effluent from sugar and CPP will be treated in ETP. Spent wash will be treated in anaerobic treatment followed by extended aeration treatment. Bagasse will be used as fuel in boiler. Bagasse based ash will be used as fertilizer. DG set (2 x 750 KVA) will be installed.

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

1. Executive summary of the project.
2. Detailed break up of the land area alongwith latest photograph of the area.
3. Present land use based on satellite imagery.
4. Details of site and information related to environmental setting within 10 km radius of the project site. A copy of toposheet of the area indicating reserve forests, wildlife sanctuary, water bodies, barren land etc.
5. Information regarding eco-sensitive area such as national park / wildlife sanctuary / biosphere reserves within 10 km radius of project area.
6. Recommendations from the State Forest Department regarding the impact of the proposed plant on the surrounding reserve forest.
7. List of existing distillery units in the study area alongwith their capacity.
8. Number of working days of the distillery unit.
9. Total cost of the project alongwith total capital cost and recurring cost/annum for environmental pollution control measures.
10. Manufacturing process details of sugar plant, distillery plant and CPP alongwith process flow chart.
11. Details of raw materials and source of raw material including sugar cane/molasses.
12. Sources and quantity of fuel (coal etc.) for the boiler. Measures to take care of SO<sub>2</sub> emission. A copy of Memorandum of Understanding (MoU) signed with the coal suppliers should be submitted.
13. Action plan to control ambient air quality as per NAAQES Standards for PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub> and NO<sub>x</sub> as per GSR 826(E) dated 16<sup>th</sup> November, 2009.
14. 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<sub>10</sub>, SO<sub>2</sub>, NO<sub>x</sub> and HC (methane & non methane) should be collected. The monitoring stations should take into account the predominant wind direction, population zone and sensitive receptors including



for water and noise monitoring should also be

or calculating the dispersion of air pollutants and ground level concentration along with emissions from the boiler.

16. Details of boiler and its capacity. Details of the use of steam from the boiler.
17. Ground water quality around proposed spent wash storage lagoon and the project area.
18. Details of water requirement, water balance chart for Sugar Plant (5000 TCD), Molasses based Distillery (60 KLPD), Co-generation plant (25 MW). Measures for conservation water by recycling and reuse to minimize the fresh water requirement.
19. Water requirement should not exceed 10 Kl/Kl of alcohol (i.e. 600 m<sup>3</sup>/day) for distillery unit. Source of water supply and prior permission for the drawl of total fresh water from the Competent Authority should be obtained.
20. Hydro-geological study of the area for availability of ground water.
21. Spentwash generation should not exceed 8Kl/ Kl of alcohol production.
22. Proposed effluent treatment system for molasses based distillery (spent wash and spent lees), sugar unit as well as CPP and scheme for achieving zero discharge.
23. Lagoon capacity for sugar unit and spent wash.
24. Details of solid waste management including management of boiler ash. MoU with cement plant for the use of fly ash.
25. Green belt development as per the CPCB guidelines.
26. List of flora and fauna in the study area.
27. Noise levels monitoring at five locations within the study area.
28. Detailed Environment management Plan (EMP) with specific reference to details of air pollution control system, water & wastewater management, monitoring frequency, responsibility and time bound implementation plan for mitigation measure should be provided.
29. EMP should also include the concept of waste-minimization, recycle/reuse/ recover techniques, Energy conservation, and natural resource conservation.
30. Risk assessment for storage and handling of alcohol and mitigation measure due to fire and explosion and handling areas.
31. Alcohol storage and handling area fire fighting facility as per OISD norms.
32. Provision of Foam System for fire fighting to control fire from the alcohol storage tank.
33. Action plan for rainwater harvesting measures at plant site should be included to harvest rainwater from the roof tops and storm water drains to recharge the ground water.
34. Details of occupational health programme.
  - i) To which chemicals, workers are exposed directly or indirectly.
  - ii) Whether these chemicals are within Threshold Limit Values (TLV)/ Permissible Exposure Levels as per ACGIH recommendation.
  - iii) What measures company have taken to keep these chemicals within PEL/TLV.
  - iv) How the workers are evaluated concerning their exposure to chemicals during pre-placement and periodical medical monitoring.
  - v) What are onsite and offsite emergency plan during chemical disaster.
  - vi) Liver function tests (LFT) during pre-placement and periodical examination.
  - vii) Details of occupational health surveillance programme.
35. Details of socio-economic welfare activities.

- for the proposed projects in respect of existing traffic, efficiency of vehicles for transportation of materials, proposed project, parking arrangement etc.
37. Action plan for post-project environmental monitoring.
  38. Corporate Environmental Responsibility
    - (a) Does the company have a well laid down Environment Policy approved by its Board of Directors? If so, it may be detailed in the EIA report.
    - (b) Does the Environmental Policy prescribe for standard operating process/procedures to bring into focus any infringement / deviation / violation of the environmental or forest norms / conditions? If so, it may be detailed in the EIA report.
    - (c) What is the hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the EC conditions. Details of this system may be given.
    - (d) Does the company have a system of reporting of non compliance / violations of environmental norms to the Board of Directors of the company and / or shareholders or stakeholders at large? This reporting mechanism should be detailed in the EIA report.
  39. Any litigation pending against the project and /or any direction /order passed by any Court of Law against the project, if so, details thereof.
  40. Public hearing issues raised and commitments made by the project proponent on the same should be included separately in EIA/EMP Report in the form of tabular chart with financial budget for complying with the commitments made.
  41. A tabular chart with index for point-wise compliance of above TORs.

The following general points should be noted:

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

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

7.2.12 Expansion of Synthetic Organic Chemicals at Plot no. 131/1, 131/2, Village Dhanot, Tehsil Kalol, District Gandhinagar, Gujarat by **M/s Vikram Thermo (India) Ltd., (Unit-1) - regarding TORs.**

and their consultant (Ramans Enviro Services Pvt. on the salient features of the project and proposed res to be undertaken alongwith the draft Term of References for the 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 Vikram Thermo (India) Ltd., (Unit-1) have proposed for expansion of synthetic organic chemicals at Plot no. 131/1, 131/2, Village Dhanot, Tehsil Kalol, District Gandhinagar, Gujarat. Total plot area is 18000 m<sup>2</sup>. Cost of expansion project is Rs. 25 Crore. No forest land is involved. Project proponent has informed that unit was establish in 1986 and that time no EC was required to be obtained for the existing activities. No court case is pending against the project. Following products will be manufactured :

S.N.	Product	Capacit (MTPM)		
		Consented	Additional	After Expansion
1	Water based Drugcoat Liquid (Avg. concentration 20-40%)	210	790	1000
2	Water Base Drugcoat powder	35	165	200
3	Solvent Base Drugcoat powder	NIL	20	20
4	Drugsol Series (Hydrogenated Castrol Oil)	NIL	25	25
5	Solvent Base Drugcoat Series	NIL	10	10
6	Ready mix powder/liquid through blending	NIL	200	200
7	Divinyl Benzene based Co-polymers	NIL	10	10
	<b>Total</b>	<b>245</b>	<b>1220</b>	<b>1465</b>

Multi-cyclone separator will be provided to wooden waste/coal/biocoal fired thermic fluid heater. Multi-cyclone separator followed by bagfilter will be provided to spray dryer. Fresh water requirement from Narmada water supply and ground water source will be increased from 55 to 218 m<sup>3</sup>/day after expansion. Industrial effluent generation will be increased from 3.9 m<sup>3</sup>/day to 71.0 m<sup>3</sup>/day and treated in ETP. Waste oil and spent solvent will be sent to authorized recycler. Distillation residue will be sent to common hazardous waste incinerator for incineration. Process waste/process residue and waste will be sent to TSDF. Wood and coal will be used as fuel. Power requirement will be 500 KVA.

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

1. A separate chapter on status of compliance of Environmental Conditions granted by State/Centre to be provided. As per circular dated 30<sup>th</sup> 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 background.
5. Regulatory framework.
6. Environment clearance for the existing unit issued by the Ministry (reasons, if not obtained), Consent to Operate and Authorization accorded by the GPCB.

ons, fugitive emissions; water requirement and water  
er generation, treated effluent quality, re-utilization  
ardous waste for the existing unit.

8. Project location and plant layout.
9. Infrastructure facilities including power sources.
10. Total cost of the project alongwith total capital cost and recurring cost/annum for environmental pollution control measures.
11. Project site location alongwith site map of 10 km area and site details providing various industries, surface water bodies, forests etc.
12. 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.
13. Location of National Park/Wild life sanctuary/Reserve forest within 10 km radius of the project.
14. Permission from the State Forest Department regarding the impact of the proposed plant on the surrounding reserve forests.
15. Details of the total land and break-up of the land use for green belt and other uses.
16. List of products alongwith the production capacities.
17. Detailed list of raw material required and source, mode of storage.
18. Manufacturing process details alongwith the chemical reactions and process flow chart.
19. Action plan for the transportation of raw material and products.
20. Site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall is necessary.
21. Ambient air quality monitoring at 6 locations within the study area of 5 km., aerial coverage from project site as per NAAQES notified on 16<sup>th</sup> September, 2009. Location of one AAQMS in downwind direction.
22. 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<sub>10</sub>, SO<sub>2</sub>, NO<sub>x</sub>, CO including VOCs shall be collected. The monitoring stations shall take into account the pre-dominant wind direction, population zone and sensitive receptors including reserved forests. Data for water and noise monitoring shall also be included.
23. Air pollution control measures proposed for the effective control of gaseous/process emissions within permissible limits.
24. Name of all the solvents to be used in the process and details of solvent recovery system.
25. Design details of ETP, incinerator, if any alongwith boiler, scrubbers/bag filters etc.
26. Details of water and air pollution and its mitigation plan.
27. Action plan to control ambient air quality as per NAAQS Standards notified by the Ministry on 16<sup>th</sup> September, 2009.
28. Determination of atmospheric inversion level at the project site and assessment of ground level concentration of pollutants from the stack emission based on site-specific meteorological features. Air quality modelling for proposed plant.
29. Permission from competent Authority for the drawl of water. Water balance chart for existing and expansion project including quantity of effluent generated recycled and reused and effluent discharge.
30. Complete scheme of effluent treatment. Characteristics of untreated and treated effluent to meet the standard.
31. Zero discharge effluent concepts to be adopted.

Monitoring minimum at 6 locations shall be carried out.  
Geo-hydrological status of the study area and  
(Soil and Aquatic).

33. 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.
34. Precautions to be taken during storage and transportation of hazardous chemicals shall be clearly mentioned and incorporated.
35. Material Safety Data Sheet for all the Chemicals are being used/will be used. CAS No./RTECS No./DOT/UN etc to be mentioned against each chemicals.
36. Authorization/Membership for the disposal of solid/hazardous waste in TSDF.
37. Risk assessment for storage for chemicals/solvents. Action plan for handling & safety system.
38. An action plan to develop green belt in 33 % area. Layout plan for green belt shall be provided.
39. Action plan for rainwater harvesting measures at plant site shall be included to harvest rainwater from the roof tops and storm water drains to recharge the ground water.
40. Details of occupational health programme.
  - i) To which chemicals, workers are exposed directly or indirectly.
  - ii) Whether these chemicals are within Threshold Limit Values (TLV)/ Permissible Exposure Levels as per ACGIH recommendation.
  - iii) What measures company have taken to keep these chemicals within PEL/TLV.
  - iv) How the workers are evaluated concerning their exposure to chemicals during pre-placement and periodical medical monitoring.
  - v) What are onsite and offsite emergency plan during chemical disaster.
  - vi) Liver function tests (LFT) during pre-placement and periodical examination.
41. Details of occupational health surveillance programme.
42. Socio-economic development activities shall be in place.
43. Note on compliance to the recommendations mentioned in the CREP guidelines.
44. Detailed Environment management Plan (EMP) with specific reference to details of air pollution control system, water & wastewater management, monitoring frequency, responsibility and time bound implementation plan for mitigation measure shall be provided.
45. EMP shall include the concept of waste-minimization, recycle / reuse / recover techniques, Energy conservation, and natural resource conservation.
46. Total capital cost and recurring cost/annum for environmental pollution control measures.
- 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.



- have a system of reporting of non compliance / al norms to the Board of Directors of the company stakeholders at large? This reporting mechanism should be detailed in the EIA report.
48. 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.
  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 tabular chart with index for point wise compliance of above TORs.

The following general points shall be noted:

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

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

#### 7.2.13 Bulk Drug Manufacturing Unit at Village Annarugudem, Tehsil Tallada, District Khammam, Andhra Pradesh by **M/s Varun Laboratories Pvt. Ltd.- regarding TORs.**

The project authorities and their consultant ( M/s Pragathi Labs & Consultants Pvt. Ltd.) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken alongwith the draft Term of References for the preparation of EIA/EMP report. All Synthetic Organic Chemicals Industry located outside the notified industrial area/estate are listed at S.N. 5(f) under category Aq and appraised at Central level.

M/s Varun Laboratories Pvt. Ltd. have proposed for setting up of Bulk Drug Manufacturing Unit at Plot No. 20, APIIC Industrial Park, Village Annarugudem, Tehsil Tallada, District Khammam, Andhra Pradesh. Project proponent confirmed that this is a new industrial area and no gazette notification regarding industrial area has been issued by the State Government. Total plot area is 2.274 acres. Out of which greenbelt will be developed in 0.77 acre of land. Cost of project is Rs. 600

ed. No court case is pending against the project.  
factured :

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	Guaicol	72.00
9	Ketrolac Tromethamine	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
<b>Total</b>		<b>670.08</b>

Water requirement from ground water source will be 100 m<sup>3</sup>/day. Industrial effluent generation will be 40 m<sup>3</sup>/day and segregated into high COD/TDS and low COD/TDS effluent stream. Power requirement from AP Transco will be 180 KVA. Coal and HSD will be used as fuel. FE salt, process organic residue, distillate bottom residue, incinerable waste, ETP sludge, Spent solvent, used oil and used battery will be generated.

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

1. Executive summary of the project
2. Justification of the project.
3. Project location and plant layout.
4. Promoters and their back ground.
5. Regulatory framework
6. A map indicating location of the project and distance from severely polluted area
7. Infrastructure facilities including power sources.
8. Total cost of the project alongwith total capital cost and recurring cost/annum for environmental pollution control measures.
9. Project site location alongwith site map of 10 km area and site details providing various industries, surface water bodies, forests etc.
10. Present land use based on satellite imagery for the study area of 10 km radius.
11. Location of National Park/Wild life sanctuary/Reserve Forest within 10 km radius of the project.

and break-up of the land use for green belt and other

the production capacities.

14. Detailed list of raw material required and source, mode of storage and transportation.
15. Manufacturing process details alongwith the chemical reactions and process flow chart.
16. Site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall is necessary.
17. Ambient air quality monitoring at 6 locations within the study area of 5 km., aerial coverage from project site as per NAAQES notified on 16<sup>th</sup> September, 2009. Location of one AAQMS in downwind direction.
18. One season site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall and AAQ data (except monsoon) for PM<sub>10</sub>, SO<sub>2</sub>, NO<sub>x</sub> including HC and VOCs should be collected. The monitoring stations should take into account the pre-dominant wind direction, population zone and sensitive receptors including reserved forests. Data for water and noise monitoring should also be included.
19. Air pollution control measures proposed for the effective control of gaseous emissions within permissible limits.
20. Name of all the solvents to be used in the process and details of solvent recovery system.
21. Design details of ETP, incinerator, boiler, scrubbers/bag filters etc.
22. Details of water and air pollution and its mitigation plan
23. Action plan to control ambient air quality as per NAAQES Standards notified by the Ministry on 16<sup>th</sup> September, 2009.
24. An action plan to control and monitor secondary fugitive emissions from all the sources.
25. Determination of atmospheric inversion level at the project site and assessment of ground level concentration of pollutants from the stack emission based on site-specific meteorological features. Air quality modelling for proposed plant.
26. Source and permission for the drawl of 100 m<sup>3</sup>/day water from the competent authority. Water balance chart including quantity of effluent generated recycled and reused and discharged. Efforts shall be made to reduce ground water drawl.
27. Action plan for ~~Zero~~ discharge of effluent should be included.
28. Ground water quality monitoring minimum at 6 locations should be carried out. Geological features and Geo-hydrological status of the study area and ecological status (Terrestrial and Aquatic).
29. The details of solid and hazardous wastes generation, storage, utilization and disposal particularly related to the hazardous waste calorific value of hazardous waste and detailed characteristic of the hazardous waste.
30. Action plan for the management of fly ash generated from boiler should be included. Tie-up or agreement with brick manufacturer to be provided.
31. Precautions to be taken during storage and transportation of hazardous chemicals should be clearly mentioned and incorporated.
32. A copy of the Memorandum of Understanding signed with cement manufacturers indicating clearly that they will utilized all the organic solid waste generated.
33. A copy of ~~M~~ Memorandum of Understanding (MoU) signed with coal supplier for imported coal and brick manufacturers for management of fly ash.
34. Authorization/Membership for the disposal of liquid effluent in CETP and solid/hazardous waste in TSDF, if any.

- et for all the Chemicals are being used/will be used.  
Γ/UN etc to be mentioned against each chemicals.  
) for the disposal of solid/hazardous waste in TSDF.
37. Risk assessment for storage for chemicals/solvents. Action plan for handling & safety system.
  38. An action plan to develop green belt in 33 % area. Layout plan for green belt shall be provided.
  39. Action plan for rainwater harvesting measures at plant site shall be included to harvest rainwater from the roof tops and storm water drains to recharge the ground water.
  40. Details of occupational health programme.
    - i) To which chemicals, workers are exposed directly or indirectly.
    - ii) Whether these chemicals are within Threshold Limit Values (TLV)/ Permissible Exposure Levels as per ACGIH recommendation.
    - iii) What measures company have taken to keep these chemicals within PEL/TLV.
    - iv) How the workers are evaluated concerning their exposure to chemicals during pre-placement and periodical medical monitoring.
    - v) What are onsite and offsite emergency plan during chemical disaster.
    - vi) Liver function tests (LFT) during pre-placement and periodical examination.
    - vii) Details of occupational health surveillance programme.
  41. Socio-economic development activities should be in place.
  42. Note on compliance to the recommendations mentioned in the CREP guidelines.
  43. Detailed Environment management Plan (EMP) with specific reference to details of air pollution control system, water & wastewater management, monitoring frequency, responsibility and time bound implementation plan for mitigation measure should be provided.
  44. EMP should include the concept of waste-minimization, recycle / reuse / recover techniques, Energy conservation, and natural resource conservation.
  45. Any litigation pending against the project and/or any direction/order passed by any Court of Law against the project, if so, details thereof.
  46. Public hearing to be conducted and issues raised and commitments made by the project proponent on the same should be included in EIA/EMP Report in the form of tabular chart with financial budget for complying with the commitments made.
  47. A tabular chart with index for point wise compliance of above TORs.

The following general points shall be noted:

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

itation issued by the QCI to the environmental  
ded.

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

#### 7.2.14 Pet Coke Gasification and Acetic Acid Plant (1.0 MMTPA) at Village Koyali, Tehsil and District Vadodara, Gujarat by **M/s IOCL - regarding TORs**

The project authorities gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken alongwith the draft Term of References for the preparation of EIA/EMP report. All petro-chemical complexes based processing (Other than Cracking & reformation) located outside the notified industrial area are listed at S.N. 5(e) under category A and appraised at Central level.

M/s IOCL have proposed for setting up of Pet Coke Gasification and Acetic Acid Plant (1.0 MMTPA) at Village Koyali, Tehsil and District Vadodara, Gujarat. Total plot area is 150 acres. The proposed site is adjacent to IOCL refinery at Vadodara. Alternative sites were not considered as the project need to be adjacent to Koyali Refinery to feed (pet coke), Hydrogen and other utilities integration. Pet coke based power plant (100 MW) will be installed. No forest land is involved. No court case is pending against the project. Carbon Monoxide and methanol will be used as raw materials. Scrubber and flaring system will be provided. Raw water requirement from Mahi River will be 12.5 MGD. Effluent will be treated in the ETP. Solid waste will be mainly ash and slag from the gasification section. Spent catalyst from sulfur recovery will be generated.

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

1. Executive summary of the project
2. Justification of the project.
3. Project location and plant layout. Site selection criteria to be elaborated.
4. Promoters and their back ground.
5. Regulatory framework
6. Infrastructure facilities including power sources.
7. Total cost of the project alongwith total capital cost and recurring cost/annum for environmental pollution control measures.
8. Project site location alongwith site map of 10 km area and site details providing various industries, surface water bodies, forests etc.
9. Present land use based on satellite imagery for the study area of 10 km radius.
10. Location of National Park/Wild life sanctuary/Reserve Forest within 10 km radius of the project.
11. Rehabilitation & Resettlement (R & R) should be as per policy of the State Govt. and a detailed action plan should be included.
12. Details of the total land and break-up of the land use for green belt and other uses.
13. List of products alongwith the production capacities.



materials required and source, mode of storage and the storage and technical specifications with safety

15. Proposal for safety buffer zone around the proposed site with map.
16. Manufacturing process details alongwith the chemical reactions and process flow chart.
17. Site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall is necessary.
18. Ambient air quality monitoring at 6 locations within the study area of 10 km., aerial coverage from project site as per NAAQES notified on 16<sup>th</sup> 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 PM<sub>10</sub>, SO<sub>2</sub>, NO<sub>x</sub>, CO including HC and VOCs should be collected. The monitoring stations should take into account the pre-dominant wind direction, population zone and sensitive receptors including reserved forests. Data for water and noise monitoring should also be included.
20. Air pollution control measures proposed for the effective control of gaseous emissions within permissible limits.
21. Name of all the solvents to be used in the process and details of solvent recovery system.
22. Design details of ETP, incinerator, if any along with control of Dioxin & Furan, boiler, scrubbers/bag filters etc. Odour control management plan.
23. Details of water and air pollution and its mitigation plan
24. Action plan to control ambient air quality as per NAAQES Standards notified by the Ministry on 16<sup>th</sup> September, 2009.
25. An action plan to control and monitor secondary fugitive emissions from all the sources.
26. Determination of atmospheric inversion level at the project site and assessment of ground level concentration of pollutants from the stack emission based on site-specific meteorological features. Air quality modelling for proposed plant.
27. Source and permission for the drawl of 12.5 MGD water from the competent authority. Water balance chart including quantity of effluent generated, recycled / reused and discharged.
28. Details of wastewater disposal plan to be incorporated. A copy of competent authority approval shall be submitted.
29. Ground water quality monitoring minimum at 6 locations should be carried out. Geological features and Geo-hydrological status of the study area and ecological status (Terrestrial and Aquatic).
30. The details of solid and hazardous wastes generation, storage, utilization and disposal particularly related to the hazardous waste calorific value of hazardous waste and detailed characteristic of the hazardous waste.
31. Detailed action plan for the management of fly ash generated from project.
32. Details of catalyst waste generated from the project along with temporary storage facility at site. Action plan for disposal of the catalyst solid waste.
33. Authorization/Membership for the disposal of liquid effluent in CETP and solid/hazardous waste in TSDF, if any.
34. Full Quantitative Risk Assessment & Disaster Management Plan should include:
  - a. Identification of hazards
  - b. Consequence Analysis
  - c. Determination of Individual Risk and Societal Risk
  - d. Proposed measures for risk reduction.
  - e. CO hazard management plan.

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

The following general points shall be noted:

properly indexed, page numbered.  
tion shall be clearly indicated.

- iii. Authenticated English translation of all material provided in Regional languages.
- iv. The letter/application for EC shall quote the MOEF file No. and also attach a copy of the letter.
- v. The copy of the letter received from the Ministry shall be also attached as an annexure to the final EIA-EMP Report.
- vi. The final EIA-EMP report submitted to the Ministry must incorporate the issues in this letter. The index of the final EIA-EMP report must indicate the specific chapter and page no. of the EIA-EMP Report.
- vii. Certificate of Accreditation issued by the QCI to the environmental consultant shall be included.

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

**7.2.15 Bulk Drugs Manufacturing Unit at Plot No. 4, APIIC Industrial Park, Village Annarugudem, Mandal Tallada, District Khammam, Andhra Pradesh by M/s LR Life Sciences - regarding TORs.**

The project authorities and their consultant ( M/s Pragathi Labs & Consultants Pvt. Ltd.) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken alongwith the draft Term of References for the preparation of EIA/EMP report. All Synthetic Organic Chemicals Industry located outside the notified industrial area/estate are listed at S.N. 5(f) under category Aq and appraised at Central level.

**M/s LR Life Sciences** have proposed for setting up of Bulk Drugs Manufacturing Unit at Plot No. 4, APIIC Industrial Park, Village Annarugudem, Mandal Tallada, District Khammam, Andhra Pradesh. Project proponent confirmed that project is located in new Industrial area and no gazette notification regarding industrial area has been issued by the State Government. Total plot area is 2.278 acres. Out of which greenbelt will be developed in 0.77 acre of land. Cost of project is Rs. 870 Lakhs. No forest land is involved. No court case is pending against the project. Following products will be manufactured :

S.N.	Product	Capacity (TPA)
1	Gualifenesin	180
2	Methocarbamol	60
3	Fluconazole	18
4	Ciprofloxacin HCL Monohydride	36
5	Enrofloxacin	240
6	Citalopram HBR	12
7	Qacid	36

		6
		24.00
		18.00
11	5-Cyano Thalide	24.00
12	Magnesiumk Tertiary Butaoxide	24.00
13	Homo Pthalic Acid	24.00
	<b>Campaign Based Products</b>	
14	Imatinib	2
15	Sertraline Hydrochloride	12
16	Itraconazole	6
17	Acyclovyr	12
18	levofloxacin	9
19	Valsartan	6
20	Telmisartan	6
21	Geftinib	1
22	Poly Vinyl Pyrrolidone	30
23	1-Benxyl Piperazine	30

Water requirement from ground water source will be 99.5 m<sup>3</sup>/day. Industrial effluent generation will be 44 m<sup>3</sup>/day and segregated into high COD/TDS and low COD/TDS effluent stream. Power requirement from AP Transco will be 180 KVA. Coal and HSD will be used as fuel. FE salt, process organic residue, distillate bottom residue, incinerable waste, ETP sludge, Spent solvent, used oil and used battery will be generated. Coal fired boiler (2x3 TPH + 1x1.5 TPH) coal fired boiler will be installed. DG set (2 x 180 KVA) will be installed. Solvent distillation column (10 KLPD) will be installed.

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

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

rological data using temperature, relative humidity, direction and rainfall is necessary.

oring at 6 locations within the study area of 5 km., aerial coverage from project site as per NAAQES notified on 16<sup>th</sup> September, 2009. Location of one AAQMS in downwind direction.

18. One season site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall and AAQ data (except monsoon) for PM<sub>10</sub>, SO<sub>2</sub>, NO<sub>x</sub>, CO including HC and VOCs should be collected. The monitoring stations should take into account the pre-dominant wind direction, population zone and sensitive receptors including reserved forests. Data for water and noise monitoring should also be included.
19. Air pollution control measures proposed for the effective control of gaseous emissions within permissible limits.
20. Name of all the solvents to be used in the process and details of solvent recovery system.
21. Design details of ETP, incinerator, boiler, scrubbers/bag filters etc.
22. Details of water and air pollution and its mitigation plan
23. Action plan to control ambient air quality as per NAAQES Standards notified by the Ministry on 16<sup>th</sup> September, 2009.
24. An action plan to control and monitor secondary fugitive emissions from all the sources.
25. Determination of atmospheric inversion level at the project site and assessment of ground level concentration of pollutants from the stack emission based on site-specific meteorological features. Air quality modelling for proposed plant.
26. Source and permission for the drawl of 99.5 m<sup>3</sup>/day water from the competent authority. Water balance chart including quantity of effluent generated recycled and reused and discharged.
27. Action plan for ~~Zero~~ discharge of effluent should be included.
28. Ground water quality monitoring minimum at 6 locations should be carried out. Geological features and Geo-hydrological status of the study area and ecological status (Terrestrial and Aquatic).
29. The details of solid and hazardous wastes generation, storage, utilization and disposal particularly related to the hazardous waste calorific value of hazardous waste and detailed characteristic of the hazardous waste.
30. Action plan for the management of fly ash generated from boiler should be included. Tie-up or agreement with brick manufacturer to be provided.
31. Precautions to be taken during storage and transportation of hazardous chemicals should be clearly mentioned and incorporated.
32. A copy of the Memorandum of Understanding signed with cement manufacturers indicating clearly that they will utilize all the organic solid waste generated.
33. A copy of ~~M~~ Memorandum of Understanding (MoU) signed with coal supplier for imported coal and brick manufacturers for management of fly ash.
34. Authorization/Membership for the disposal of liquid effluent in CETP and solid/hazardous waste in TSDF, if any.
53. Material Safety Data Sheet for all the Chemicals are being used/will be used. CAS No./RTECS No./DOT/UN etc to be mentioned against each chemicals.
54. Authorization/Membership for the disposal of solid/hazardous waste in TSDF.
55. Risk assessment for storage for chemicals/solvents. Action plan for handling & safety system.
56. An action plan to develop green belt in 33 % area. Layout plan for green belt shall be provided.



harvesting measures at plant site shall be included the roof tops and storm water drains to recharge the

36. Details of occupational health programme.
  - viii) To which chemicals, workers are exposed directly or indirectly.
  - ix) Whether these chemicals are within Threshold Limit Values (TLV)/ Permissible Exposure Levels as per ACGIH recommendation.
  - x) What measures company have taken to keep these chemicals within PEL/TLV.
  - xi) How the workers are evaluated concerning their exposure to chemicals during pre-placement and periodical medical monitoring.
  - xii) What are onsite and offsite emergency plan during chemical disaster.
  - xiii) Liver function tests (LFT) during pre-placement and periodical examination.
  - xiv) Details of occupational health surveillance programme.
37. Socio-economic development activities should be in place.
38. Note on compliance to the recommendations mentioned in the CREP guidelines.
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 include the concept of waste-minimization, recycle / reuse / recover techniques, Energy conservation, and natural resource conservation.
41. Any litigation pending against the project and/or any direction/order passed by any Court of Law against the project, if so, details thereof.
42. Public hearing to be conducted and issues raised and commitments made by the project proponent on the same should be included in EIA/EMP Report in the form of tabular chart with financial budget for complying with the commitments made.
43. A tabular chart with index for point wise compliance of above TORs.

The following general points shall be noted:

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

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

ing/ Consultation should be incorporated in the EIA/EMP submitted to the Ministry for obtaining

7.2.16 Proposed installation of DAP/NPK Fertilizer Manufacturing plant of 0.90 Million MT/year DAP/NPJ Complex Fertilizer of Greenfield Project at Mangalore, Karnataka by **M/s Jai Prakash Engineering and Steel Company Ltd. regarding TORs.**

The proponent informed that they will not be able to attend the meeting. The Committee decided to consider the proposal as and when requested by the project proponent.

7.2.17 Expansion of Distillery Unit (60 KLPD) at Village: Randhawa, Distt. Hoshiarpur, Punjab by **M/s A.B Sugars Ltd. regarding TORs**

The proponent informed that they will not be able to attend the meeting. The Committee decided to consider the proposal as and when requested by the project proponent.

7.2.18 Synthetic Organic Chemicals Manufacturing Unit at Plot No. 98-A, AKVN, Meghnagar, Village Meghnagar, District. Jhabua, Madhya Pradesh by **M/s Meghnagar Pharmachem Pvt. Ltd. regarding TORs**

The project authorities gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken alongwith the draft Term of References for the preparation of EIA/EMP report. All Synthetic Organic Chemicals Industry located inside the notified industrial area/estate are listed at S.N. 5(f) under category Bq However, project site is located within 10 Km of interstate boundary and treated as category Aq project due to applicability of general condition of the EIA notification, 2006 and appraised at Central level.

M/s Meghnagar Pharmachem Pvt. Ltd. have proposed for setting up of Synthetic Organic Chemicals Manufacturing Unit at Plot No. 98-A, AKVN, Meghnagar, Village Meghnagar, District Jhabua, Madhya Pradesh. Total plot area is 3924 m<sup>2</sup>. Out of which, greenbelt will be developed in 1295 m<sup>2</sup>. Total cost of the project is Rs. 152 Lakhs. No forest land is involved. No court case is pending against the project. Following products will be manufactured:

S.N.	Product	Application	Production Capacity (Kg/Month)
1	N-Methyl-J-Acid	Dye Intermediate	20000.00
2	N-Benzoyl-J-Acid	Dye Intermediate	5000.00
3	N-Acetyl-J-Acid	Dye Intermediate	5000.00
4	N-Phenyl-J-Acid	Dye Intermediate	5000.00
		<b>Total</b>	<b>35000.00</b>

Scrubber will be provided to control process emissions (viz. SO<sub>2</sub> and NH<sub>3</sub>). Fresh water requirement from AKVN will be 26.25 m<sup>3</sup>/day. Effluent generation will be 11.54 m<sup>3</sup>/day and segregated into high TDS effluent stream and low TDS effluent stream. High TDS effluent will be concentrated in MEE and Low TDS effluent will be

sis. Organic waste, inorganic waste, MEE salt and  
Used oil will be sent to recyclers/re-processors. Fly  
treatment units.

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

1. Executive summary of the project
2. Justification of the project.
3. Project location and plant layout.
4. Promoters and their back ground.
5. Regulatory framework.
6. A map indicating location of the project and distance from severely polluted area
7. A copy of Gazette Notification issued by the Govt. of MP indicating location of the project in notified AKVN should be included necessarily.
8. Infrastructure facilities including power sources.
9. Total cost of the project alongwith total capital cost and recurring cost/annum for environmental pollution control measures.
10. Project site location alongwith photographs of the project site and site map of 10 km area and site details providing various industries, surface water bodies, forests etc.
11. Present land use based on satellite imagery for the study area of 10 km radius.
12. Location of National Park/Wild life sanctuary/Reserve Forest within 10 km radius of the project.
13. Details of the total land and break-up of the land use for green belt and other uses.
14. List of products alongwith the production capacities.
15. Detailed list of raw material required and source, mode of storage and transportation.
16. Manufacturing process details alongwith the chemical reactions and process flow chart.
17. Site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall is necessary.
18. Ambient air quality monitoring at 6 locations within the study area of 5 km., aerial coverage from project site as per NAAQES notified on 16<sup>th</sup> 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 PM<sub>10</sub>, SO<sub>2</sub>, NO<sub>x</sub> including HC and VOCs should be collected. The monitoring stations should take into account the pre-dominant wind direction, population zone and sensitive receptors including reserved forests. Data for water and noise monitoring should also be included.
20. Air pollution control measures proposed for the effective control of gaseous emissions within permissible limits.
21. Name of all the solvents to be used in the process and details of solvent recovery system.
22. Design details of ETP, incinerator, if any along with boiler, scrubbers/bag filters etc.
23. Details of water and air pollution and its mitigation plan
24. Action plan to control ambient air quality as per NAAQES Standards notified by the Ministry on 16<sup>th</sup> September, 2009.
25. An action plan to control and monitor secondary fugitive emissions from all the sources.

pheric inversion level at the project site and level concentration of pollutants from the stack specific meteorological features. Air quality modelling

- for proposed plant.
27. Permission for the drawl of 26.25 m<sup>3</sup>/day water from the concerned agency. Water balance chart including quantity of effluent generated recycled and reused and discharged.
  28. Action plan for ~~z~~Zero discharge of effluent should be included.
  29. Ground water quality monitoring minimum at 6 locations should be carried out. Geological features and Geo-hydrological status of the study area and ecological status (Terrestrial and Aquatic).
  30. The details of solid and hazardous wastes generation, storage, utilization and disposal particularly related to the hazardous waste calorific value of hazardous waste and detailed characteristic of the hazardous waste.
  31. Precautions to be taken during storage and transportation of hazardous chemicals should be clearly mentioned and incorporated.
  32. A copy of the Memorandum of Understanding signed with cement manufacturers indicating clearly that they will utilized all the organic solid waste generated.
  33. A copy of ~~M~~Memorandum of Understanding (MoU) signed with coal supplier for imported coal and brick manufacturers for management of fly ash.
  34. Authorization/Membership for the disposal of liquid effluent in CETP and solid/hazardous waste in TSDF, if any.
  35. Risk assessment for storage for chemicals/solvents.
  36. Material Safety Data Sheet for all the Chemicals are being used/will be used. CAS No./RTECS No./DOT/UN etc to be mentioned against each chemicals.
  37. An action plan to develop green belt in 33 % area. Layout plan of greenbelt.
  38. Action plan for rainwater harvesting measures at plant site should be included to harvest rainwater from the roof tops and storm water drains to recharge the ground water.
  39. Details of occupational health programme.
    - i) To which chemicals, workers are exposed directly or indirectly.
    - ii) Whether these chemicals are within Threshold Limit Values (TLV)/ Permissible Exposure Levels as per ACGIH recommendation.
    - iii) What measures company have taken to keep these chemicals within PEL/TLV.
    - iv) How the workers are evaluated concerning their exposure to chemicals during pre-placement and periodical medical monitoring.
    - v) What are onsite and offsite emergency plan during chemical disaster.
    - vi) Liver function tests (LFT) during pre-placement and periodical examination.
    - vii) Details of occupational health surveillance programme.
  40. Socio-economic development activities should be in place.
  41. Note on compliance to the recommendations mentioned in the CREP guidelines.
  42. Detailed Environment management Plan (EMP) with specific reference to details of air pollution control system, water & wastewater management, monitoring frequency, responsibility and time bound implementation plan for mitigation measure should be provided.
  43. EMP should include the concept of waste-minimization, recycle / reuse / recover techniques, Energy conservation, and natural resource conservation.
  44. Any litigation pending against the project and/or any direction/order passed by any Court of Law against the project, if so, details thereof.
  45. A tabular chart with index for point wise compliance of above TORs.

nts shall be noted:

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

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

#### 7.2.19 Expansion of Molasses based Distillery Unit ( from 60 KLPD to 150 KLPD) at Village Alaganchi, Tehsil Nanjangud, District Mysore, Karnataka by **M/s Bannari Amman Sugars Ltd. -regarding TORs**

The project authorities and their consultant (Ultra Tech Environmental Consultancy & Laboratory) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken alongwith the draft Term of References for the preparation of EIA/EMP report. All molasses based distilleries are listed at S.N. 5(g) (i) under category ~~A~~ and project proposal is treated as category ~~A~~ project.

M/s Bannari Amman Sugars Ltd. have proposed for expansion of Molasses based Distillery Unit (from 60 KLPD to 150 KLPD) at Village Alaganchi, Tehsil Nanjangud, District Mysore, Karnataka. Total plot area 20.66 ha. Out of which greenbelt will be developed in 6.82 ha. Total cost of the project is Rs. 85 Crore. Distillery will be operated for 330 days in a year. Molasses requirement will be increased from 240 TPD to 594 TPD after expansion. Kabini River is flowing at a distance of 6 Km. Environmental clearance has been accorded to the existing 60 KLPD distillery by MoEF vide letter no. J-11011/4/2004-IA II (I) dated 13.05.2004 and J-11011/4/2004 IA II (I) dated 13.11.2007.

Existing boiler capacity is 23.4 TPH. Additional one more boiler (23.4 TPH) is proposed. Bagfilter will be provided to boiler to control particulate emission. Steam turbine capacity will be increased from 2 MW to 4 MW. Fresh water requirement from River Kabini will be increased from 599 m<sup>3</sup>/day to 1350 m<sup>3</sup>/day. Spent wash will be concentrated in MEE and concentrate will be incinerated in the incineration



and in ETP followed by RO. Pre-meat from RO will be  
Reject water will be sent for biocomposting process  
discharge. Coal (112 TPD), Bagasse (223 TPD) and  
Concentrated spent wash will be consumed as fuel.

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

1. A separate chapter on status of compliance of Environmental Conditions granted by State/Centre to be provided. As per circular dated 30<sup>th</sup> May, 2012 issued by MoEF, a certified report by RO, MoEF on status of compliance of conditions on existing unit to be provided in EIA/EMP report.
2. Executive summary of the project.
3. Detailed breakup of the land area alongwith latest photograph of the area.
4. Present land use based on satellite imagery and details of land availability for the project alongwith supporting document.
5. Details of site and information related to environmental setting within 10 km radius of the project site.
6. A copy of lease deed or allotment letter, if land is already acquired.
7. Environment clearance for the existing unit issued by the Ministry (reasons, if not obtained), Consent to Operate and Authorization accorded by the KSPCB.
8. 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.
9. Information regarding eco-sensitive areas such as national park/wildlife sanctuary/ biosphere reserves within 10 km radius of project area.
10. List of existing distillery units in the study area alongwith their capacity and sourcing of raw material.
11. Details of proposed products along with manufacturing capacity.
12. Number of working days of the distillery unit.
13. Total cost of the project along with total capital cost and recurring cost/annum for environmental pollution control measures. Capital cost shall be reviewed as seems to be very high.
14. Details of raw materials, its source with availability of all raw materials.
15. Sources and quantity of fuel (rice husk/coal etc.) for the boiler. Measures to take care of SO<sub>2</sub> emission. A copy of Memorandum of Understanding (MoU) signed with the coal suppliers should be submitted.
16. Storage facility for raw materials, prepared alcohol, fuel and fly ash.
17. Action plan to control ambient air quality as per NAAQES Standards for PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub> and NO<sub>x</sub> as per GSR 826(E) dated 16<sup>th</sup> 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<sub>10</sub>, SO<sub>2</sub>, NO<sub>x</sub> and HC (methane & non methane) should be collected. The monitoring stations should take into account the predominant 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.
20. An action plan prepared by SPCB to control and monitor secondary fugitive emissions from all the sources.
21. Details of the use of steam from the boiler.
22. Ground water quality around proposed spent wash storage lagoon and the project area.

ment, water balance chart for molasses based  
conservation water by recycling and reuse to minimize  
nt.

24. Source of water supply and permission of withdrawal of water from Competent Authority.
25. Proposed effluent treatment system for molasses based distillery (spent wash and spent lees) as well as domestic sewage and scheme for achieving zero discharge.
26. Spent wash generation should not exceed 8 KL/KL of alcohol production. Details of the spent wash treatment for molasses based distillery based distillery.
27. Capacity for spent wash holding tank and action plan to control ground water pollution.
28. Layout for storage of bagasse/biomass/coal.
29. Details of solid waste management including management of boiler ash.
30. Green belt development as per the CPCB guidelines.
31. List of flora and fauna in the study area.
32. Noise levels monitoring at five locations within the study area.
33. 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.
34. EMP should also include the concept of waste-minimization, recycle/reuse/recover techniques, Energy conservation, and natural resource conservation.
35. Risk assessment for storage and handling of alcohol and mitigation measure due to fire and explosion and handling areas.
36. 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.
37. 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.
38. Details of occupational health programme.
  - i) To which chemicals, workers are exposed directly or indirectly.
  - ii) Whether these chemicals are within Thresh Limit Values (TLV)/ Permissible Exposure Levels as per ACGIH recommendation.
  - iii) What measures company have taken to keep these chemicals within PEL/TLV.
  - iv) How the workers are evaluated concerning their exposure to chemicals during pre-placement and periodical medical monitoring.
  - v) What are onsite and offsite emergency plan during chemical disaster.
  - vi) Liver function tests (LFT) during pre-placement and periodical examination.
  - vii) Details of occupational health surveillance programme.
39. Details of socio-economic welfare activities.
40. Traffic study of the area for the proposed projects in respect of existing traffic, type of vehicles, frequency of vehicles for transportation of materials, additional traffic due to proposed project, parking arrangement etc.
41. Action plan for post-project environmental monitoring.
- 42. 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

rest norms / conditions? If so, it may be detailed in

al 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.

43. Any litigation pending against the project and /or any direction /order passed by any Court of Law against the project, if so, details thereof.
44. 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.
45. A tabular chart with index for point-wise compliance of above TORs.

The following general points should be noted:

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

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

#### 7.2.20 Expansion of Sugar Manufacturing Unit (from 5000 TCD to 12000 TCD) and Co-generation Power Plant (form 28 MW to 78 MW) at Village Uttur, Tehsil Mudhol, District Bagalkot, Karnataka by **M/s Indian Cane Power Ltd.- regarding TORs**

The project authorities and their consultant (Bhagavathi Ana Labs Ltd.) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken alongwith the draft Term of References for the preparation of EIA/EMP report. All thermal power plants (biomass

lud waste as fuel) are listed at S.N. 1(d) under Central level. Sugar unit  $\geq 5000$  TCD cane crushing is Bq and appraised at state level. Since project is integrated and capacity of the CPP is  $>15$  MW (78 MW), the proposal will be appraised at Central level.

M/s Indian Cane Power Ltd. have proposed for expansion of Sugar Manufacturing Unit (from 5000 TCD to 12000 TCD) and Co-generation Power Plant (from 28 MW to 78 MW) at Village Uttur, Tehsil Mudhol, District Bagalkot, Karnataka. Ghataprabha River (6.0 Km), Yadawad Nallah (5.0 Km), Mallapur (8.5 Km), Simi Nallah (3.2 Km), Kanni Nallah (1.0 Km), Dodda Nallah (5.5 Km), Halpana Nallah (7.4 Km) are located within 10 Km distance. Environmental Clearance was granted vide MoEF's letter no. J-11011/85/2007-IA II (I) dated 16<sup>th</sup> August, 2007 for the existing unit. Total plot area is 210 acres. Out of which greenbelt will be developed in 32.35 acres of land. No forest land is involved. No wildlife sanctuaries/national parks are located within 15 Km distance. No court case is pending against the project. Total project cost is R.s 323.15 Crore. Bagasse will be used as fuel for cogeneration power plant. No of working days in an year is 210 days during crushing season and 120 days during off season. Boiler capacity will be 180 TPH. ESP along with stack height (90 m) will be provided to the bagasses fired boiler. Water requirement from Ghata Prabha River will be 4000 KLPD. Process wastewater will be treated in ETP. Press mud and ETP sludge will be used as manure. Spent oil/waste oil will be sent to authorized recyclers/re-processors.

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

1. A separate chapter on status of compliance of Environmental Conditions granted by State/Centre to be provided. As per circular dated 30<sup>th</sup> May, 2012 issued by MoEF, a certified report by RO, MoEF on status of compliance of conditions on existing unit to be provided in EIA/EMP report.
2. Executive summary of the project.
3. Detailed breakup of the land area along with latest photograph of the area.
4. Present land use based on satellite imagery.
5. Details of site and information related to environmental setting within 10 km radius of the project site.
6. Location of National Park/Wild life sanctuary/Reserve forest within 10 km radius of the project.
7. Permission from the State Forest Department regarding the impact of the proposed plant on the surrounding reserve forest.
8. Environment clearance for the existing unit issued by the Ministry (reasons, if not obtained), Consent to Operate and Authorization accorded by the KSPCB.
9. List of industrial units in the study area alongwith their capacity.
10. Number of working days of the sugar unit and CPP.
11. Total cost of the project along with total capital cost and recurring cost/annum for environmental pollution control measures.
12. Manufacturing process details of sugar plant and CPP alongwith process flow chart.
13. Details of raw materials and source of raw material.
14. Sources and quantity of fuel (coal etc.) for the boiler. Measures to take care of SO<sub>2</sub> emission. A copy of Memorandum of Understanding (MoU) signed with the coal suppliers should be submitted, in case coal is used.

the SPCB to control ambient air quality as per PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub> and NO<sub>x</sub> as per GSR 826(E) dated

16. One season site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall and AAQ data (except monsoon) for PM<sub>10</sub>, SO<sub>2</sub>, NO<sub>x</sub> and HC (methane & non methane) should be collected. The monitoring stations should take into account the predominant wind direction, population zone and sensitive receptors including reserved forests. Data for water and noise monitoring should also be included.
17. Mathematical modeling for calculating the dispersion of air pollutants and ground level concentration along with emissions from the boiler.
18. An action plan to control and monitor secondary fugitive emissions from all the sources.
19. Details of boiler and its capacity. Details of the use of steam from the boiler.
20. Ground water quality around existing spent wash storage lagoon and the project area.
21. Details of water requirement, water balance chart for Sugar, distillery and Co-generation plant. Measures for conservation water by recycling and reuse to minimize the fresh water requirement.
22. Prior permission from Competent Authority for the drawl of total fresh water. Details of source of water supply.
23. Hydro-geological study of the area for availability of ground water.
24. Proposed effluent treatment system for sugar unit as well as CPP and scheme for achieving zero discharge.
25. Lagoon capacity for sugar unit as well measures to be taken to control ground water contamination.
26. Details of solid waste management including management of boiler ash. Submit Ash management plan. MoU with cement plant for the use of fly ash.
27. Green belt development as per the CPCB guidelines.
28. List of flora and fauna in the study area.
29. Noise levels monitoring at five locations within the study area.
30. Detailed Environment management Plan (EMP) with specific reference to details of air pollution control system, water & wastewater management, monitoring frequency, responsibility and time bound implementation plan for mitigation measure should be provided.
31. EMP should also include the concept of waste-minimization, recycle/reuse/recover techniques, Energy conservation, and natural resource conservation.
32. Details of bagasse storage. Details of press mud requirement.
33. Action plan for rainwater harvesting measures at plant site should be included to harvest rainwater from the roof tops and storm water drains to recharge the ground water.
34. Details of occupational health programme.
  - i) To which chemicals, workers are exposed directly or indirectly.
  - ii) Whether these chemicals are within Threshold Limit Values (TLV)/ Permissible Exposure Levels as per ACGIH recommendation.
  - iii) What measures company have taken to keep these chemicals within PEL/TLV.
  - iv) How the workers are evaluated concerning their exposure to chemicals during pre-placement and periodical medical monitoring.
  - v) What are onsite and offsite emergency plan during chemical disaster.
  - vi) Liver function tests (LFT) during pre-placement and periodical examination.



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

The following general points should be noted:

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

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

esticides Manufacturing Unit (from 50 MT/100 days  
Villiage Lakhawal, Tehsil Kohara, District. Ludhiana,  
Punjab by **M/s Modern Insecticides Ltd -regarding TORs**

The project authorities and their consultant (J M Enviro Net Pvt. Ltd.) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken alongwith the draft Term of References for the preparation of EIA/EMP report. All units producing technical grade pesticides are listed at S.N. 5(b) under category A and appraised at Central level.

M/s Modern Insecticides Ltd have proposed for expansion of Technical Pesticides Manufacturing Unit (from 50 MT/100 days to 333 MT/333 days at Villiage Lakhawal, Tehsil Kohara, District. Ludhiana, Punjab. Environment clearance for the existing unit has been granted by the MoEF vide letter no. J-11011/353/2009-IA II (I) dated 28<sup>th</sup> February, 2011. Total plot area is 1.21 ha. (3 acres). Out which greenbelt will be developed in 0.5 ha. Cost of the project is Rs. 45 Lakhs. No national parks/wildlife sanctuaries/biosphere reserves lies within 10 Km radius of the proposed project site. Following products will be manufactured:

#### A. Pesticide Technical

S.N.	Product	Proposed capacity	Proposed days	Production Capacity: MTPD
1	Pyorthroid Synthetic	150 MT	150	1
2	Neonicotined	10 MT	10	1
3	Organophosphorus	30 MT	30	1
4	Fungicide	3 MT	3	1
5	Herbicide	30 MT	30	1
6	Other Herbicides	10 MT	10	1
7	Imidazolidine	50 MT	50	1
8	Cyclohexane Dione	4 MT	4	1
9	Fementation	2 MT	2	1
10	Other Fungicide	10 MT	10	1
11	Sulfonyl Herbicide	4 MT	4	1
12	Carbamate	15 MT	15	1
13	Other Insecticide	15 MT	15	1

#### B. Formulations

S.N.	Product	MTPA
1	<b>Pesticide Formulation (Solid)</b>	<b>500</b>
2	<b>Emulsifier Formulation (Liquid)</b>	<b>1000</b>
	<b>Total</b>	<b>1500</b>

Scrubber will be provided to control process emissions. Water requirement from ground water source will be increased from 11.06 m<sup>3</sup>/day to 15.37 m<sup>3</sup>/day after expansion. Effluent will be treated in the ETP. Power requirement from PSEB will be 188.534 KW.

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

- status of compliance of Environmental Conditions to be provided. As per circular dated 30<sup>th</sup> 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. Approval from Central Insecticide Bureau for manufacturing of new compounds alongwith testing reports to be submitted.
  7. Environment clearance for the existing unit issued by the Ministry, Consent to Operate and Authorization accorded by the PPCB.
  8. 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.
  9. A map indicating location of the project and distance from severely polluted area
  10. Project location and plant layout.
  11. Infrastructure facilities including power sources.
  12. Total cost of the project alongwith total capital cost and recurring cost/annum for environmental pollution control measures.
  13. Project site location alongwith photographs and site map of 10 km area and site details providing various industries, surface water bodies, forests etc.
  14. Present land use based on satellite imagery for the study area of 10 km radius.
  15. Location of National Park/Wild life sanctuary/Reserve Forest within 10 km radius of the project.
  16. Details of the total land and break-up of the land use for green belt and other uses.
  17. List of products alongwith the production capacities.
  18. Detailed list of raw material required and source, mode of storage and transportation.
  19. Manufacturing process details alongwith the chemical reactions and process flow chart.
  20. Site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall is necessary.
  21. Ambient air quality monitoring at 6 locations within the study area of 5 km., aerial coverage from project site as per NAAQES notified on 16<sup>th</sup> September, 2009. Location of one AAQMS in downwind direction.
  22. 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<sub>10</sub>, SO<sub>2</sub>, NO<sub>x</sub>, CO including HC and VOCs should be collected. The monitoring stations should take into account the pre-dominant wind direction, population zone and sensitive receptors including reserved forests. Data for water and noise monitoring should also be included.
  23. Air pollution control measures proposed for the effective control of gaseous emissions within permissible limits.
  24. Name of all the solvents to be used in the process and details of solvent recovery system.
  25. Design details of ETP, incinerator, if any alongwith control of Dioxin & Furan, boiler, scrubbers/bag filters etc.
  26. Details of water and air pollution and its mitigation plan
  27. An action plan to control and monitor secondary fugitive emissions from all the sources.

spheric inversion level at the project site and level concentration of pollutants from the stack specific meteorological features. Air quality modelling

- for proposed plant.
29. Permission for the drawl of 15.37 m<sup>3</sup>/day ground water from the CGWA. Water balance chart including quantity of effluent generated recycled and reused and discharged.
  30. Action plan for ~~zero~~ discharge of effluent should be included.
  31. Ground water quality monitoring minimum at 6 locations should be carried out. Geological features and Geo-hydrological status of the study area and ecological status (Terrestrial and Aquatic).
  32. The details of solid and hazardous wastes generation, storage, utilization and disposal particularly related to the hazardous waste calorific value of hazardous waste and detailed characteristic of the hazardous waste. Action plan for the management of fly ash generated from boiler should be included.
  33. Precautions to be taken during storage and transportation of hazardous chemicals should be clearly mentioned and incorporated.
  34. A copy of the Memorandum of Understanding signed with cement manufacturers indicating clearly that they will utilized all the organic solid waste generated.
  35. Authorization/Membership for the disposal of liquid effluent in CETP and solid/hazardous waste in TSDF.
  36. Risk assessment for storage for chemicals/solvents.
  37. Material safety data sheet to be submitted. CAS No./RTECS No./DOT/UN etc to be mentioned against each chemicals.
  38. An action plan to develop green belt in 33 % area. Layout map indicating greenbelt to be submitted.
  39. 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.
  40. Details of occupational health programme.
    - i) To which chemicals, workers are exposed directly or indirectly.
    - ii) Whether these chemicals are within Thresh Limit Values (TLV)/ Permissible Exposure Levels as per ACGIH recommendation.
    - iii) What measures company have taken to keep these chemicals within PEL/TLV.
    - iv) How the workers are evaluated concerning their exposure to chemicals during pre-placement and periodical medical monitoring.
    - v) What are onsite and offsite emergency plan during chemical disaster.
    - vi) Liver function tests (LFT) during pre-placement and periodical examination.
    - vii) Details of occupational health surveillance programme.
  41. Socio-economic development activities shall be in place.
  42. Note on compliance to the recommendations mentioned in the CREP guidelines.
  43. Detailed Environment management Plan (EMP) with specific reference to details of air pollution control system, water & wastewater management, monitoring frequency, responsibility and time bound implementation plan for mitigation measure shall be provided.
  44. EMP shall include the concept of waste-minimization, recycle / reuse / recover techniques, Energy conservation, and natural resource conservation.
  45. Total capital cost and recurring cost/annum for environmental pollution control measures.

## Responsibility

Have a well laid down Environment Policy approved by the 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.
47. Any litigation pending against the project and/or any direction/order passed by any Court of Law against the project, if so, details thereof.
  48. Public hearing to be conducted and issues raised and commitments made by the project proponent on the same should be included in EIA/EMP Report in the form of tabular chart with financial budget for complying with the commitments made.
  49. A tabular chart with index for point wise compliance of above TORs.

The following general points shall be noted:

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

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

7.2.22 Bulk Drugs Manufacturing Unit at Village Peddapally, Mandal Jadcherla, District Mehabubnagar, Andhra Pradesh by **M/s Virchow Petrochemical Pvt. Ltd. -regarding TORs.**

The project authorities and their consultant (Team Labs and Consultants, Hyderabad) gave a detailed presentation on the salient features of the project and



on measures to be undertaken alongwith the draft preparation of EIA/EMP report. All the Bulk Drug Units area are listed at S.N. 5(f) under Category A and

appraised at the Central level.

M/s Virchow Petrochemical Pvt. Ltd. have proposed for setting up of Bulk Drugs Manufacturing Unit at Village Peddapally, Mandal Jadcherla, District Mehabubnagar, Andhra Pradesh. Plot area is 100.375 acres. Out of which greenbelt will be developed in 35.2 acres. Cost of the project is Rs. 150.0 Crore. No national park/ wildlife sanctuary is located within 10 Km distance. Tigalapalli RF and Appannapalli RF are located within 10 Km Following products will be manufactured:

S.N.	Product	Capacity	
		TPM	Kg/day
<b>Phase-I</b>			
1	P-methoxy Benzyl 2-(p-toluene sulphonyl thio) a-(1-Chloromethyl ethenyl-4-oxo-3-phenacetamido-1-azetidine acetate (GCLE)	<b>200</b>	<b>6666.67</b>
2	Meta-Chloro Anisol	<b>150</b>	<b>5000</b>
3	Cefdinir	<b>50</b>	<b>1666.67</b>
4	Cefixime	<b>100</b>	<b>3333.33</b>
	<b>Total (Phase 1)</b>	<b>500</b>	<b>16666.7</b>
<b>Phase -II</b>			
1	Aciclovir	<b>50</b>	<b>1666.67</b>
2	Amoxicillin	<b>100</b>	<b>3333.33</b>
3	Cefalexine	<b>100</b>	<b>3333.33</b>
4	Ibuprofen	<b>100</b>	<b>3333.33</b>
5	Tremadol Hydrogen Chloride	<b>100</b>	<b>3333.33</b>
	<b>Total (Phase II)</b>	<b>450</b>	<b>15000</b>
	<b>Total after Phase - II</b>	<b>950</b>	<b>31666.7</b>
	<b>Co-generation Plant</b>		<b>4 MW</b>

S.N.	Products	Stage	Name of the By-product	Capacity	
				Kg/day	TPM
<b>Phase-I</b>					
1	P-methoxy Benzyl 2-(p-toluene sulphonyl thio) a-(1-Chloromethyl ethenyl-4-oxo-3-phenacetamido-1-azetidine acetate (GCLE)	I	Potassium Chloride	1154.1	34.6
			Spent HCl	1519.4	45.6
2	Meta-Chloro Anisol	I	Sodium Hydroxide (48%)	2924	87.7
3	Cefdinir	I	2-mercapto benzothiazole	705	21.1
4	Cefixime	I	Tri phenyl phosphine oxide	2489.9	74.7
		II	Phenyl Acetic Acid	999.5	30
		III	2-mercapto	1228.8	36.9

		Name of the By-product		Capacity	
				Kg/day	TPM
		benzothiazole			
<b>Phase –II</b>					
1	Aciclovir	I	Acetic Acid	998.3	29.9
		III	Di-methyl ammonium acetate	3112.1	93.4
2	Amoxicillin	III	Trimethylsilanol	822.8	24.7
			Methyl acetoacetate	1059.1	31.8
			Pivalic acid	931.7	28
3	Cefalexine	III	Pivalic acid	980	29.4
			Ethyl aceto acetate	1123.9	33.7
4	Ibuprofen	III	Chromic sulfate	2114.3	63.4

Scrubber will be installed to control process emissions. Coal fired boiler (12 TPH and 30 TPH) will be installed in two phases. DG sets (2 x 725 KVA) will be installed. Water requirement from ground water source will be 801.41 m<sup>3</sup>/day. Industrial effluent generation will be 254 m<sup>3</sup>/day. Industrial wastewater will be segregated into High TDS/COD and Low TDS/COD effluent streams. High TDS/COD effluent stream will be treated through steam stripper followed by multiple effect evaporator (MEE) and agitated thin film drier (ATFD). Low TDS/COD effluent stream will be treated in effluent treatment plant (ETP) comprising primary, secondary and tertiary treatment. No effluent will be discharged outside the premises and zero effluent discharge concept will be adopted. Ash from boiler will be sold to brick manufacturers. Evaporator salts, inorganic residue and ETP sludge will be sent to TSDF. Solvent will be sent to recycler. Waste oil and used batteries will be sent to authorized recyclers.

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

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

- Micro-meteorological data using temperature, relative humidity, wind direction and rainfall is necessary.
- Monitoring should be carried out at 6 locations within the study area of 5 km., providing aerial coverage from project site as per NAAQES notified on 16<sup>th</sup> September, 2009. Location of one AAQMS in downwind direction.
18. One season site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall and AAQ data (except monsoon) for PM<sub>10</sub>, SO<sub>2</sub>, NO<sub>x</sub>, CO including HC and VOCs should be collected. The monitoring stations should take into account the pre-dominant wind direction, population zone and sensitive receptors including reserved forests. Data for water and noise monitoring should also be included.
  19. Air pollution control measures proposed for the effective control of gaseous emissions within permissible limits.
  20. Name of all the solvents to be used in the process and details of solvent recovery system.
  21. Design details of ETP, incinerator, boiler, scrubbers/bag filters etc.
  22. Details of water and air pollution and its mitigation plan
  23. Action plan to control ambient air quality as per NAAQES Standards notified by the Ministry on 16<sup>th</sup> September, 2009.
  24. An action plan to control and monitor secondary fugitive emissions from all the sources.
  25. Determination of atmospheric inversion level at the project site and assessment of ground level concentration of pollutants from the stack emission based on site-specific meteorological features. Air quality modelling for proposed plant.
  26. Source and permission for the drawl of 56.5 m<sup>3</sup>/day water from the competent authority. Water balance chart including quantity of effluent generated recycled and reused and discharged.
  27. Action plan for zero discharge of effluent should be included.
  28. Ground water quality monitoring minimum at 6 locations should be carried out. Geological features and Geo-hydrological status of the study area and ecological status (Terrestrial and Aquatic).
  29. The details of solid and hazardous wastes generation, storage, utilization and disposal particularly related to the hazardous waste calorific value of hazardous waste and detailed characteristic of the hazardous waste.
  30. Action plan for the management of fly ash generated from boiler should be included. Tie-up or agreement with brick manufacturer to be provided.
  31. Precautions to be taken during storage and transportation of hazardous chemicals should be clearly mentioned and incorporated.
  32. A copy of the Memorandum of Understanding signed with cement manufacturers indicating clearly that they will utilize all the organic solid waste generated.
  33. A copy of Memorandum of Understanding (MoU) signed with coal supplier for imported coal and brick manufacturers for management of fly ash.
  34. Authorization/Membership for the disposal of liquid effluent in CETP and solid/hazardous waste in TSDF, if any.
  35. Material Safety Data Sheet for all the Chemicals are being used/will be used. CAS No./RTECS No./DOT/UN etc to be mentioned against each chemicals.
  36. Authorization/Membership for the disposal of solid/hazardous waste in TSDF.
  37. Risk assessment for storage for chemicals/solvents. Action plan for handling & safety system.
  38. An action plan to develop green belt in 33 % area. Layout plan for green belt shall be provided.

harvesting measures at plant site shall be included the roof tops and storm water drains to recharge the

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

The following general points shall be noted:

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

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

ification, 2006. The concerns raised alongwith the  
ing/ Consultation should be incorporated in the  
EIA/EMP submitted to the Ministry for obtaining  
environmental clearance.

**7.2.23 Expansion of Vishakh Refinery (from 8.33 MTPA to 15.00 MTPA) at Village Malkapuram, District Visakhapatnam, Andhra Pradesh by M/s HPCL. - regarding TORs.**

The Committee noted that project proposal falls under critically polluted area, i.e. Vishakhapatnam (CEPI-70.82). As per Ministry's O. M. dated 13<sup>th</sup> January, 2010, Ministry has imposed moratorium on consideration of project. As on date, moratorium has not been lifted in respect of Vishakhapatnam, AP. Therefore, project can not be considered for award of TOR.

**7.2.24 Expansion of LPG and Propylene Handling Facilities at LPG Bottling Plant, Near Mathura Refinery, Mathura, Uttar Pradesh by M/s IOCL. -regarding TORs**

The project authorities gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken alongwith the draft Term of References for the preparation of EIA/EMP report. All the Isolated Storage & Handling of hazardous chemicals (as per threshold planning quantity indicated in column 3 of schedule 2 & 3 of MSIHC Rules 1989 amended 2000) activities is listed at 6(b) of the Schedule of EIA Notification, 2006 under category 'B' and appraised at Central level. However, due to applicability of General Condition, project is treated as category 'A' project. Interstate boundary of Uttar Pradesh and Rajasthan is located within 10 Km.

M/s IOCL have proposed for expansion of LPG (650 KMPA) and Propylene Handling Facilities (34.46 KMPA) at LPG Bottling Plant, Near Mathura Refinery, Mathura, Uttar Pradesh. Total plot area is 41 acres. No additional land is required for the expansion. Project falls under Taj Trapezium Zone. Yamuna River is flowing at a distance of 6 Km. Cost of project is Rs. 65 Crore. Details of existing facilities are LPG storage facilities (3x1200 MT MB), Propylene Storage Facilities (2x200 MT MB), LPG bottling facilities (400 MTPD), LPG dispatch facilities (9 Tank truck loading bays), Propylene dispatch facilities (3 Tank truck loading bays). Existing facilities can handle 650 TMTA of LPG and 35 TMTA of Propylene. EC for FCCU revamp for LPG yield and reliability improvement obtained vide MoEF's letter no J-11011/283/2006 dated 22<sup>nd</sup> March, 2007. LPG production will be enhanced from 256 to 386 TMTA. Propylene production will be increased from 30 to 200 TMTA. Propylene storage and transfer facilities will be modified for increased production. Propylene Storage facilities 1x600 MT mounded bullets complying with OISD-STD-150 guidelines, which is safer mode of storage. Additional 4 nos. of loading bays for LPG dispatch and propylene dispatch facilities each will be created. No additional water will be required and wastewater will be generated. 89 KW of additional power will be sourced from the existing captive power plant of Mathura Refinery.

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

1. A separate chapter on status of compliance of Environmental Conditions granted by State/Centre to be provided. As per circular dated 30<sup>th</sup> May, 2012



- ed report by RO, MoEF on status of compliance of  
t to be provided in EIA/EMP report.  
e project.
3. Project description and Project benefits.
  4. Environment clearance for the existing unit issued by the Ministry (reasons, if not obtained), Consent to Operate and Authorization accorded by the UPPCB.
  5. Land use details of the site based on satellite imagery.
  6. Process details and design details of all the tanks.
  7. A list of industries within 10 km radius of the project.
  8. List of villages and population within 5 Km.
  9. Layout plan with provision of trucks parking area. Earmarking of area for parking of Lorries at a remote location to avoid congestion.
  10. Details of the storage and technical specifications with safety aspects & standards
  11. Site details including satellite imagery for 5 km around the site.
  12. Land use along with maps & cropping pattern, vegetation, ecology, flora & fauna
  13. Demography & socio-economics of the area.
  14. Baseline data collection for air, water and soil for:
    - i. Ambient air quality monitoring for PM<sub>10</sub>, SO<sub>2</sub> and NO<sub>x</sub>.
    - 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
  14. Details of water consumption and source of water supply, waste water generation, treatment and utilization of treated water generated from the facilities and effluent disposal and measures for release of effluent in case of fire.
  15. Storm water system should have provision to prevent any unintended oil in the drain to flow out with storm water and should take care of the highest rainfall care. Details of oil water separator.
  16. Detailed solid waste generation, collection, segregation, its recycling and reuse, treatment and disposal.
  17. Assessment of impact on air, water, soil, solid/hazardous waste and noise levels.
  18. Details of proposed preventive measures for leakages and accident.
  19. Details of Vapour Recovery System for the storage tanks and lorries.
  20. Adequate width of approach road to avoid congestion and to have safe exit in emergencies.
  21. Type of seismic zone.
  22. Environmental Management Plan
  23. Risk Assessment & Disaster Management Plan
    - i. Identification of hazards
    - ii. Consequence Analysis
    - iii. Preventive measures.
    - iv. Risk assessment should also include leakages during storage, handling, transportation and proposed measures for risk reduction.
    - v. Fire and explosion hazard.

It also include follow up/compliance to safety & management facilities; possibility of fire and explosion hazard for accidents at site and its impact on adjoining area, risk mitigation measures, disaster management plan; on-site & off-site emergency plan.

25. Details of fire fighting facilities.

26. Details of occupational health programme.

- i) To which chemicals, workers are exposed directly or indirectly.
- ii) Whether these chemicals are within Threshold Limit Values (TLV)/ Permissible Exposure Levels as per ACGIH recommendation.
- iii) What measures company have taken to keep these chemicals within PEL/TLV.
- iv) How the workers are evaluated concerning their exposure to chemicals during pre-placement and periodical medical monitoring.
- v) What are onsite and offsite emergency plan during chemical disaster.
- vi) Liver function tests (LFT) during pre-placement and periodical examination.

27. Environmental Monitoring programme.

## 28. 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.

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

30. 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.

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

The following general points should be noted:

- (i) All documents should be properly indexed, page numbered.

Collection should be clearly indicated.  
The translation of all material provided in Regional

- (iv) letter/application for EC should quote the MOEF file No. and also attach a copy of the letter.
- (v) A copy of the letter received from the Ministry should be also attached as an annexure to the final EIA-EMP Report.
- (vi) The final EIA-EMP report submitted to the Ministry must incorporate the issues in this letter. The index of the final EIA-EMP report must indicate the specific chapter and page no. of the EIA-EMP Report where the above issues have been incorporated.
- (vii) Certificate of Accreditation issued by the QCI to the environmental consultant should be included.

It was decided that TORs prescribed by the Expert Appraisal Committee (Industry) should be considered for preparation of EIA / EMP report for the above mentioned project in addition to all the relevant information as per the Generic Structure of EIA given in Appendix III and IIIA in the EIA Notification, 2006. The draft EIA/EMP report should be submitted to the Uttar Pradesh Pollution Control Board for public hearing. The issues emerged and response to the issues raised during should be incorporated in the EIA report. The final EIA/EMP Report alongwith Certificate of Accreditation issued by the QCI should be submitted to the Ministry for obtaining environmental clearance.

**7.2.25 Integrated Gas Processing Plant (GPP; 10 MMSCMD) alongwith CPP (30 MW) at Village Kelwa, Mahim and Tokrale, Tehsil Palghar, District Thane, Maharashtra by M/s Oil and Natural Gas Corporation Ltd.-regarding TORs.**

The project authorities gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken alongwith the draft Term of References for the preparation of EIA/EMP report. All the 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 and Natural Gas Corporation Ltd. have proposed for setting up of an Integrated Gas Processing Plant (GPP; 10 MMSCMD) alongwith CPP (30 MW) at Village Kelwa, Mahim and Tokrale, Tehsil Palghar, District Thane, Maharashtra. Total plot area is 772.60 ha. Out of which, plot area earmarked for the GPP is 375 ha. Project proponent informed that site namely Kelwa- Mahim has been selected based on study of 4 alternate sites. No tiger reserves/elephant reserve/turtle nesting grounds, habitate for migratory birds are located within 10 Km distance. Shirgaon Lake is located at 8.3 Km. Dudh River (9.3 Km), Surya River (9 Km), Vaitrana River (9.6 Km), Mur River (5.2 Km) and Arabian Sea (6.2 Km) are located within 10 Km distance. Cost of the project is Rs. 9980 Crore. No forest land is involved. No R & R. Following facilities will be developed:

S.N.	Unit	Capacity
1	Slug Catcher	10 MMSCMD, 12000 BCPD
2	Booster compressors	4 Operation + 1 Standby
3	Condensate Fractionation Unit	2100 m3/day
4	Integrated GDU & LPG Plant	2 x 5 MMSCMD
5	Kerosene /MTO/Diesel Recovery Unit	1750 m3/day

It is informed that they have applied to EAC (thermal) for power plant (2200 MW). Project also attract CRZ natural gas pipeline, intake /outfall facilities. Therefore, project proponent will apply for CRZ clearance. Fresh water requirement from River Surya will be 6000 m<sup>3</sup>/day. In case non availability of fresh water from surface water, setting up a desalination plant with an output of 14000 m<sup>3</sup>/day. Power requirement from CPP will be 30 MW. DG sets (2 x 2 MW) will be installed.

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

1. Executive summary of the project
2. Justification of the project.
3. Promoters and their back ground.
4. Regulatory framework
5. Project location and plant layout.
6. Infrastructure facilities including power sources.
7. Total cost of the project alongwith total capital cost and recurring cost/annum for environmental pollution control measures.
8. A site location map on Indian map of 1:10, 00,000 scale followed by 1:50,000/1:25,000 scale on an A3/A2 sheet with at least next 10 Kms of terrains i.e. circle of 10 kms and further 10 kms on A3/A2 sheets with proper longitude/latitude/heights with min. 100/200 m. contours should be included. 3-D view i.e. DEM (Digital Elevation Model) for the area in 10 km radius from the proposal site. A photograph of the site should also be included.
9. Present land use should be prepared based on satellite imagery. High-resolution satellite image data having 1m-5m spatial resolution like quickbird, Ikonos, IRS P-6 pan sharpened etc. for the 10 Km radius area from proposed site. The same should be used for land used/land-cover mapping of the area.
10. Topography of the area should be given clearly indicating whether the site requires any filling. If so, details of filling, quantity of fill material required, its source, transportation etc. should be given.
11. Rehabilitation & Resettlement (R & R) should be as per policy of the State Govt. and a detailed action plan should be included.
12. Project site location alongwith site map of 10 km area and site details providing various industries, surface water bodies, forests etc.
13. Location of National Park/Wild life sanctuary/Reserve Forest within 10 km radius of the project.
14. Permission from the State Forest Department considering the impact of the proposed plant on the surrounding National Park/Wild life Sanctuary/Reserve Forest/Eco sensitive area, if any. Approval obtained from the State/Central Government under Forest (Conservation Act, 1980 for the forestland should be submitted.
15. Details of the total land required for the project and break-up of the land use for green belt and other uses. Status of land acquisition.
16. Does proposal involves rehabilitation and resettlement? If yes, details thereof.
17. CRZ clearance for installing natural gas pipeline, intake /outfall facilities.
18. List of products alongwith the production capacities.
19. Detailed list of raw material required and source, mode of storage and transportation.
20. Manufacturing process details alongwith the chemical reactions and process flow chart.

- Micro-meteorological data using temperature, relative humidity, wind direction and rainfall is necessary. Monitoring should be carried out at 6 locations within the study area of 5 km., providing aerial coverage from project site as per NAAQES notified on 16<sup>th</sup> September, 2009. Location of one AAQMS in downwind direction.
23. 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<sub>10</sub>, SO<sub>2</sub>, NO<sub>x</sub>, CO including HC and VOCs should be collected. The monitoring stations should take into account the pre-dominant wind direction, population zone and sensitive receptors including reserved forests. Data for water and noise monitoring should also be included.
  24. Air pollution control measures proposed for the effective control of gaseous emissions within permissible limits.
  25. Design details of ETP, incinerator, if any alongwith boiler, scrubbers/bag filters etc.
  26. Details of water and air pollution and its mitigation plan
  27. An action plan to control and monitor secondary fugitive emissions from all the sources.
  28. Determination of atmospheric inversion level at the project site and assessment of ground level concentration of pollutants from the stack emission based on site-specific meteorological features. Air quality modelling for proposed plant.
  29. Permission for drawl of water from concerned authority. Water balance chart including quantity of effluent generated recycled and reused and discharged.
  30. Action plan for zero discharge of effluent should be included. Treatment & disposal of produced water.
  31. Ground water quality monitoring minimum at 6 locations should be carried out. Geological features and Geo-hydrological status of the study area and ecological status (Terrestrial and Aquatic).
  32. The details of solid and hazardous wastes generation, storage, utilization and disposal particularly related to the hazardous waste calorific value of hazardous waste and detailed characteristic of the hazardous waste.
  33. Authorization/Membership for the disposal of liquid effluent in CETP and solid/hazardous waste in TSDF.
  34. An action plan to develop green belt in 33 % area. Layout map indicating greenbelt.
  35. 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.
  36. Details of occupational health programme.
    - i) To which chemicals, workers are exposed directly or indirectly.
    - ii) Whether these chemicals are within Threshold Limit Values (TLV)/ Permissible Exposure Levels as per ACGIH recommendation.
    - iii) What measures company have taken to keep these chemicals within PEL/TLV.
    - iv) How the workers are evaluated concerning their exposure to chemicals during pre-placement and periodical medical monitoring.
    - v) What are onsite and offsite emergency plan during chemical disaster.
    - vi) Liver function tests (LFT) during pre-placement and periodical examination.
  37. Details of occupational health surveillance programme.
  38. Socio-economic development activities should be in place.



the recommendations mentioned in the CREP

- 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.
41. Risk Assessment & Disaster Management Plan
    - (i) Identification of hazards
    - (ii) Consequence Analysis
    - (iii) Preventive measures.
    - (iv) Risk assessment should also include leakages during storage, handling, transportation and proposed measures for risk reduction.
    - (v) Fire and explosion hazard.
  42. **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.
  43. Any litigation pending against the project and/or any direction/order passed by any Court of Law against the project, if so, details thereof.
  44. 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.
  45. A tabular chart with index for point wise compliance of above TORs.

The following general points shall be noted:

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

described by the Expert Appraisal Committee (Industry) for the 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 Maharashtra Pollution Control Board for public hearing. The issues emerged and response to the issues raised during should be incorporated in the EIA report. The final EIA/EMP report alongwith Certificate of Accreditation issued by the QCI should be submitted to the Ministry for obtaining environmental clearance.

**7.2.26 Expansion of Synthetic Organic Chemical Manufacturing Unit at Plot No. 59,61,62,63, 66A and 67, Sipcot Industrial Area, Phase II, Village Mornapalli, Tehsil Hosur, District Krishnagiri, Tamil Nadu by M/s V. B. Medicare Pvt. Ltd.- regarding TORs.**

The project authorities and their consultant ( Chola MS Risk Services) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken alongwith the draft Term of References for the preparation of EIA/EMP report. All Synthetic Organic Chemicals Industry located inside the notified industrial area/estate are listed at S.N. 5(f) under category 'B' However, project site is located within 10 Km of interstate boundary and treated as category 'A' project due to applicability of general condition of the EIA notification, 2006 and appraised at Central level.

**M/s V. B. Medicare Pvt. Ltd. have proposed for expansion of Synthetic Organic Chemical Manufacturing Unit at Plot No. 59,61,62,63, 66A and 67, Sipcot Industrial Area, Phase II, Village Mornapalli, Tehsil Hosur, District Krishnagiri, Tamil Nadu. Total plot area is 6 ha. Out of which, greenbelt will be developed in 3.1 ha. Environmental clearance for the existing unit was accorded by the MoEF vide letter no J-11011/583/2007 IA II (I) dated 13<sup>th</sup> February, 2008. Total cost of the project is Rs. 1537.5 Lakhs. Following products will be manufactured :**

S.N	Product	Existing	Proposed	Capacity (MTPA)
1	Glucosamine Hydrochloride (GHC)	Consented Product	To be continued	240
2	Trichloro Galacto Pyranosyl Fructo Furanoside (TGPF)	Consented Product	To be continued with process modification with reduced pollution load discharge	72
3	Docosahexanoic Acid (DHA)		Proposed Product	180
4	Tocopheryl polyethylene Glycol Succinate (TPGS)		Proposed Product	72

Bagfilter has been provided to existing coal fired boiler. Acid and alkali wet scrubber is provided in the existing chlorinator. Water requirement after expansion will be 330 m3/day. Wastewater generation after expansion will be 66 m3/day. No effluent will be discharged outside the plant premises. DG set (1x1500 KVA + 1x

er requirement from TNEB will be 1900 KVA. Coal

As per the recommendations of the Expert Appraisal Committee prescribed the following ToRs for preparation of EIA/EMP:

1. A separate chapter on status of compliance of Environmental Conditions granted by State/Centre to be provided. As per circular dated 30<sup>th</sup> 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. Project location and plant layout.
5. Promoters and their back ground.
6. Regulatory framework.
7. A map indicating location of the project and distance from severely polluted area
8. A copy of Gazette Notification issued by the Govt. of Tamil Nadu indicating location of the project in notified SIPCOT industrial area to be included necessarily.
9. Infrastructure facilities including power sources.
10. Total cost of the project alongwith total capital cost and recurring cost/annum for environmental pollution control measures.
11. Project site location alongwith photographs of the project site and site map of 10 km area and site details providing various industries, surface water bodies, forests etc.
12. Present land use based on satellite imagery for the study area of 10 km radius.
13. Location of National Park/Wild life sanctuary/Reserve Forest within 10 km radius of the project.
14. Details of the total land and break-up of the land use for green belt and other uses.
15. List of products alongwith the production capacities.
16. Detailed list of raw material required and source, mode of storage and transportation.
17. Manufacturing process details alongwith the chemical reactions and process flow chart.
18. Site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall is necessary.
19. Ambient air quality monitoring at 6 locations within the study area of 5 km., aerial coverage from project site as per NAAQES notified on 16<sup>th</sup> September, 2009. Location of one AAQMS in downwind direction.
20. One season site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall and AAQ data (except monsoon) for PM<sub>10</sub>, SO<sub>2</sub>, NO<sub>x</sub>, Cl<sub>2</sub> including HC and VOCs should be collected. The monitoring stations should take into account the pre-dominant wind direction, population zone and sensitive receptors including reserved forests. Data for water and noise monitoring should also be included.
21. Air pollution control measures proposed for the effective control of gaseous emissions within permissible limits.
22. Name of all the solvents to be used in the process and details of solvent recovery system.
23. Design details of ETP, incinerator, if any along with control of Dioxin & Furan, boiler, scrubbers/bag filters etc.
24. Details of water and air pollution and its mitigation plan

ambient air quality as per NAAQES Standards notified in September, 2009.

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. Source and permission for the drawl of 330 m<sup>3</sup>/day water from the concerned agency. Water balance chart including quantity of effluent generated recycled and reused and discharged.
29. Action plan for ~~Zero~~ discharge of effluent should be included.
30. Ground water quality monitoring minimum at 6 locations should be carried out. Geological features and Geo-hydrological status of the study area and ecological status (Terrestrial and Aquatic).
31. 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.
32. Precautions to be taken during storage and transportation of hazardous chemicals should be clearly mentioned and incorporated.
33. A copy of the Memorandum of Understanding signed with cement manufacturers indicating clearly that they will utilize all the organic solid waste generated.
34. A copy of ~~A~~ Memorandum of Understanding (MoU) signed with coal supplier for imported coal and brick manufacturers for management of fly ash.
35. Authorization/Membership for the disposal of liquid effluent in CETP and solid/hazardous waste in TSDF, if any.
36. Risk assessment for storage for chemicals/solvents.
37. Material safety data sheet of chemicals to be submitted.
38. An action plan to develop green belt in 33 % area.
39. 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.
40. Details of occupational health programme.
  - i) To which chemicals, workers are exposed directly or indirectly.
  - ii) Whether these chemicals are within Threshold Limit Values (TLV)/ Permissible Exposure Levels as per ACGIH recommendation.
  - iii) What measures company have taken to keep these chemicals within PEL/TLV.
  - iv) How the workers are evaluated concerning their exposure to chemicals during pre-placement and periodical medical monitoring.
  - v) What are onsite and offsite emergency plan during chemical disaster.
  - vi) Liver function tests (LFT) during pre-placement and periodical examination.
  - vii) Details of occupational health surveillance programme.
41. Socio-economic development activities should be in place.
42. Note on compliance to the recommendations mentioned in the CREP guidelines.
43. Detailed Environment management Plan (EMP) with specific reference to details of air pollution control system, water & wastewater management, monitoring frequency, responsibility and time bound implementation plan for mitigation measure should be provided.
44. EMP should include the concept of waste-minimization, recycle / reuse / recover techniques, Energy conservation, and natural resource conservation.

inst the project and/or any direction/order passed by  
the project, if so, details thereof.  
for point wise compliance of above TORs.

The following general points shall be noted:

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

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

#### **7.2.27 Expansion of Paper Production at Village Makhiyali, Distt. Muzaffarnagar, U.P. by M/s Silvertan Papers Ltd.- regarding TORs.**

The project authorities gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken alongwith the draft Term of References for the preparation of EIA/EMP report. The Committee noted that the unit was to carry out modification/upgradation in the existing ETP to improve the water quality of treated effluent. However, project proponent was unable to explain the progress status of the same. Therefore the Committee desired following additional information :

- i) Water balance chart of the existing project as well as expansion indicating raw water input, loss and effluent generation.
- ii) Water quality of raw intake water to be submitted. Wastewater characteristics of untreated and treated effluent.
- iii) Copy of Consent to establish and consent to operate alongwith point wise compliance report.
- iv) Details of showcause notices/directions issued by the SPCB/CPCB alongwith action taken report.
- v) Process scheme of the existing and proposed effluent treatment plant including techno-economic feasibility study of ETP.



radation in the existing ETP alongwith actual

unit.

viii) Ash disposal action plan to be submitted.

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

**7.2.28 Expansion of Chemical Manufacturing Unit alongwith CPP (20 MW) at A- 1, Industrial Area, Village Dohri Parsa, Tehsil Kashipur, District Udham Singh Nagar, Uttarakhand by M/s India Glycols Ltd.- regarding TORs.**

The project authorities gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken alongwith the draft Term of References for the preparation of EIA/EMP report. All Synthetic Organic Chemicals Industry located outside the notified industrial area/estate are listed at S.N. 5(f) under category A and appraised at Central level.

M/s India Glycols Ltd. have proposed for expansion of Chemical Manufacturing Unit alongwith CPP (20 MW) at A- 1, Industrial Area, Village Dohri Parsa, Tehsil Kashipur, District Udham Singh Nagar, Uttarakhand. Existing land area is 1036120.89 m<sup>2</sup> and no additional land is required. Cost of project is Rs. 100.00 Crore. Following products will be manufactured:

S.N.	Product	Existing capacity (MTPA)	Additional Capacity (MTPA)	After Expansion (MTPA)
1	Mono Ethylene Glycol (MEG)	120000	30000	150000
2	Di Ethylene Glycol (DEG)	9600	2400	12000
3	Tri Ethylene Glycol (TEG)	1200	300	1500
4	Ethylene Oxide	55000	--	55000
5	EO Derivatives, Condensates, Sulphated, Formulated, Glycol Ether & Glycol Ether Acetate	60000	90000	150000
6	P O Derivatives Specially of Guar Gum	--	1500	1500

Scrubber will be provided to control process emissions. ESP will be provided to coal based captive power plant to control particulate emissions. Water requirement from ground water source will be 2602 m<sup>3</sup>/day after expansion. Wastewater

and treated in the existing ETP. Fly ash will be sent to  
s developed in 3,52,274 m<sup>2</sup>.

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

1. A separate chapter on status of compliance of Environmental Conditions granted by State/Centre to be provided. As per circular dated 30<sup>th</sup> 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 SPCB.
7. 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.
8. Project location and plant layout.
9. Infrastructure facilities including power sources.
10. Total cost of the project alongwith total capital cost and recurring cost/annum for environmental pollution control measures.
11. Project site location alongwith site map of 10 km area and site details providing various industries, surface water bodies, forests etc.
12. 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.
13. Location of National Park/Wild life sanctuary/Reserve forest within 10 km radius of the project.
14. Permission from the State Forest Department regarding the impact of the proposed plant on the surrounding reserve forests.
15. Details of the total land and break-up of the land use for green belt and other uses.
16. List of products alongwith the production capacities.
17. Detailed list of raw material required and source, mode of storage.
18. Manufacturing process details alongwith the chemical reactions and process flow chart.
19. Action plan for the transportation and storage of raw materials and products.
20. Sources and quantity of fuel (coal etc.) for the boiler. Measures to take care of SO<sub>2</sub> emission. A copy of Memorandum of Understanding (MoU) signed with the coal suppliers should be submitted, in case coal is used.
21. Site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall is necessary.
22. Ambient air quality monitoring at 6 locations within the study area of 5 km., aerial coverage from project site as per NAAQES notified on 16<sup>th</sup> September, 2009. Location of one AAQMS in downwind direction.
23. 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<sub>10</sub>, SO<sub>2</sub>, NO<sub>x</sub>, CO, HCl, HC 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.
24. Air pollution control measures proposed for the effective control of gaseous/process emissions within permissible limits.

to be used in the process and details of solvent

- incinerator, if any alongwith boiler, scrubbers/bag filters etc.
27. Details of water and air pollution and its mitigation plan.
  28. Action plan to control ambient air quality as per NAAQS Standards notified by the Ministry on 16<sup>th</sup> September, 2009.
  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. Permission from competent Authority for the drawl of water. Water balance chart for existing and expansion project including quantity of effluent generated recycled and reused and effluent discharge.
  32. Complete scheme of effluent treatment. Characteristics of untreated and treated effluent to meet the standard.
  33. Zero discharge effluent concepts to be adopted.
  34. 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).
  41. 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.
  42. Submit Ash management plan. MoU with cement plant for the use of fly ash.
  35. Precautions to be taken during storage and transportation of hazardous chemicals shall be clearly mentioned and incorporated.
  36. Material Safety Data Sheet for all the Chemicals are being used/will be used. CAS No./RTECS No./DOT/UN etc to be mentioned against each chemicals.
  37. Authorization/Membership for the disposal of solid/hazardous waste in TSDF.
  38. Risk assessment for storage for chemicals/solvents. Action plan for handling & safety system.
  39. An action plan to develop green belt in 33 % area. Layout plan for green belt to be provided. Plant species selected will be of local/native origin
  40. Action plan for rainwater harvesting measures at plant site shall be included to harvest rainwater from the roof tops and storm water drains to recharge the ground water.
  41. Details of occupational health programme.
    - i) To which chemicals, workers are exposed directly or indirectly.
    - ii) Whether these chemicals are within Threshold Limit Values (TLV)/ Permissible Exposure Levels as per ACGIH recommendation.
    - iii) What measures company have taken to keep these chemicals within PEL/TLV.
    - iv) How the workers are evaluated concerning their exposure to chemicals during pre-placement and periodical medical monitoring.
    - v) What are onsite and offsite emergency plan during chemical disaster.
    - vi) Liver function tests (LFT) during pre-placement and periodical examination.
  42. Details of occupational health surveillance programme.
  43. Socio-economic development activities shall be in place.
  44. Note on compliance to the recommendations mentioned in the CREP guidelines.

- management Plan (EMP) with specific reference to control system, water & wastewater management, 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. Total capital cost and recurring cost/annum for environmental pollution control measures.
  - 48. Corporate Environmental Responsibility**
    - (a) Does the company have a well laid down Environment Policy approved by its Board of Directors? If so, it may be detailed in the EIA report.
    - (b) Does the Environmental Policy prescribe for standard operating process/procedures to bring into focus any infringement / deviation / violation of the environmental or forest norms / conditions? If so, it may be detailed in the EIA report.
    - (c) What is the hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the EC conditions. Details of this system may be given.
    - (d) Does the company have a system of reporting of non compliance / violations of environmental norms to the Board of Directors of the company and / or shareholders or stakeholders at large? This reporting mechanism should be detailed in the EIA report.
  49. 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.
  50. Any litigation pending against the project and/or any direction/order passed by any Court of Law against the project, if so, details thereof.
  51. A tabular chart with index for point wise compliance of above TORs.

The following general points shall be noted:

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

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

Organic Chemicals Manufacturing Unit at Village  
trict Valsad, Gujarat by **M/s Tipco Industries Ltd.** -

The project authorities and their consultant (Precitech Laboratories) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken alongwith the draft Term of References for the preparation of EIA/EMP report. All Synthetic Organic Chemicals Industry located outside the notified industrial area/estate are listed at S.N. 5(f) under category A and appraised at Central level.

M/s Tipco Industries Ltd. have proposed for expansion of Synthetic Organic Chemicals Manufacturing Unit at Village Abrama, Tehsil Pardi, District Valsad, Gujarat. The unit was established in 1983. Total cost of project is Rs. 1549 Lakhs. Total plot area is 71015 m<sup>2</sup>. Out of which greenbelt will be developed in 39679 m<sup>2</sup>. No forest land is involved. No litigation/court case is pending against the project proposal. River Auranga (0.7 Km), River Wanki (1.0 Km) and River Par (6.5 Km) are flowing within 10 Km distance. Reserve forest is located at a distance of 4.0 Km. Following products will be manufactured:

Name of the products	Existing (TPM)	Proposed Expansion (TPM)		Total (TPM)
		Phase-1	Phase-2	
PF Resin	65	650	535	1250
PF Powder Resin*	-	1000	--	1000
PF Moulding Compounds*	500	500	--	1000
Phenolic Jute Products*	100	--	--	100
Thermoplastic Moulding Compounds*	1000	--	--	1000
Plastic Pallets . 5000 nos. *	200	--	--	200
Polyester/Epoxy Moulding compounds*	--	100	--	100
<b>Total</b>	<b>1865</b>	<b>2250</b>	<b>535</b>	<b>4650</b>

\*EC not applicable Existing CC&A no.-AWH-48613 dated: 6/8/2012 (for Thermoset division) & WH-12821 dated: 31/05/2012 (for Thermoplastic division)

Bag Dust collector will be provided to PF moulding powder. Fresh water requirement from ground water source will be increased from 18 m<sup>3</sup>/day to 72 m<sup>3</sup>/day after expansion. Industrial effluent generation will be increased from 10.5 m<sup>3</sup>/day to 52.0 m<sup>3</sup>/day after expansion. Industrial effluent will be segregated into diluted stream and concentrated stream. Diluted stream will be treated in ETP and concentrated stream will be incinerated. ETP sludge and incinerator residue will be sent to TSDF. Used oil will be sent to authorized recycler. Power requirement will be met from DGVCL. DG set (110 KVA) will be installed. FO and HSD will be used as fuel.

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

1. A separate chapter on status of compliance of Environmental Conditions granted by State/Centre to be provided. As per circular dated 30<sup>th</sup> 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.



project

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 SPCB.
7. 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.
8. Project location and plant layout.
9. Infrastructure facilities including power sources.
10. Total cost of the project alongwith total capital cost and recurring cost/annum for environmental pollution control measures.
11. Project site location alongwith site map of 10 km area and site details providing various industries, surface water bodies, forests etc.
12. 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.
13. Location of National Park/Wild life sanctuary/Reserve forest within 10 km radius of the project.
14. Permission from the State Forest Department regarding the impact of the proposed plant on the surrounding reserve forests.
15. Details of the total land and break-up of the land use for green belt and other uses.
16. List of products alongwith the production capacities.
17. Detailed list of raw material required and source, mode of storage.
18. Manufacturing process details alongwith the chemical reactions and process flow chart.
19. Action plan for the transportation and storage of raw materials and products.
20. Site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall is necessary.
21. Ambient air quality monitoring at 6 locations within the study area of 5 km., aerial coverage from project site as per NAAQES notified on 16<sup>th</sup> September, 2009. Location of one AAQMS in downwind direction.
22. 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<sub>10</sub>, SO<sub>2</sub>, NO<sub>x</sub>, CO, HCl, HC 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.
23. Air pollution control measures proposed for the effective control of gaseous/process emissions within permissible limits.
24. Name of all the solvents to be used in the process and details of solvent recovery system.
25. Design details of ETP, incinerator, if any alongwith boiler, scrubbers/bag filters etc.
26. Details of water and air pollution and its mitigation plan.
27. Action plan to control ambient air quality as per NAAQS Standards notified by the Ministry on 16<sup>th</sup> September, 2009.
28. An action plan prepared by SPCB to control and monitor secondary fugitive emissions from all the sources.
29. 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.

- ent Authority for the drawl of water. Water balance expansion project including quantity of effluent used and effluent discharge.
31. Complete scheme of effluent treatment. Characteristics of untreated and treated effluent to meet the standard.
  32. Zero discharge effluent concepts to be adopted.
  33. 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).
  43. 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.
  34. Precautions to be taken during storage and transportation of hazardous chemicals shall be clearly mentioned and incorporated.
  35. Material Safety Data Sheet for all the Chemicals are being used/will be used. CAS No./RTECS No./DOT/UN etc to be mentioned against each chemicals.
  36. Authorization/Membership for the disposal of solid/hazardous waste in TSDF.
  37. Risk assessment for storage for chemicals/solvents. Action plan for handling & safety system.
  38. An action plan to develop green belt in 33 % area. Layout plan for green belt shall be provided.
  39. Action plan for rainwater harvesting measures at plant site shall be included to harvest rainwater from the roof tops and storm water drains to recharge the ground water.
  40. Details of occupational health programme.
    - i) To which chemicals, workers are exposed directly or indirectly.
    - ii) Whether these chemicals are within Threshold Limit Values (TLV)/ Permissible Exposure Levels as per ACGIH recommendation.
    - iii) What measures company have taken to keep these chemicals within PEL/TLV.
    - iv) How the workers are evaluated concerning their exposure to chemicals during pre-placement and periodical medical monitoring.
    - v) What are onsite and offsite emergency plan during chemical disaster.
    - vi) Liver function tests (LFT) during pre-placement and periodical examination.
  41. Details of occupational health surveillance programme.
  42. Socio-economic development activities shall be in place.
  43. Note on compliance to the recommendations mentioned in the CREP guidelines.
  44. Detailed Environment management Plan (EMP) with specific reference to details of air pollution control system, water & wastewater management, monitoring frequency, responsibility and time bound implementation plan for mitigation measure shall be provided.
  45. EMP shall include the concept of waste-minimization, recycle / reuse / recover techniques, Energy conservation, and natural resource conservation.
  46. Total capital cost and recurring cost/annum for environmental pollution control measures.
  - 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

- ...rest norms / conditions? If so, it may be detailed in
- ...al 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. 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.
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 tabular chart with index for point wise compliance of above TORs.

The following general points shall be noted:

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

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

**7.2.30 Proposed CPC Crude plant & Green CPC manufacturing unit at District Vadodara, Gujarat by M/s Bhabani Pigment Pvt. Ltd- regarding TORs.**

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

**7.2.31 Fertilizer unit at Pulgaon, Village Gunjkhedda, District Wardha of Maharashtra by M/s BEC Fertilizers (Pulgaon Unit) - regarding TORs.**

Some of the Members of the Committee including Chairman informed that they have either not received the information at all or very late and could not get time

so requested PAs to send information timely to take deferred for consideration in next meeting.

**7.2.32 Bulk Drug Manufacturing Unit at Village Jagdevpur, Mandal Jagdevpur, District Medak, Andhra Pradesh by M/s Kosher Pharmaceuticals Pvt. Ltd. - regarding TORs.**

The project authorities and their consultant (Team Labs and Consultant) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken alongwith the draft Term of References for the preparation of EIA/EMP report. All Synthetic Organic Chemicals Industry (bulk drugs and 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 Kosher Pharmaceuticals Pvt. Ltd. have proposed for setting up of Bulk Drug Manufacturing Unit at Village Jagdevpur, Mandal Jagdevpur, District Medak, Andhra Pradesh. Total plant area is 6.5 acres. Cost of project is Rs. 7.0 Crore. No forest land is involved. No court case/litigation is pending against the project. Following products will be manufactured :

S.N.	Name of Product	Capacity (kg/day)
1	Aliskiren Hemifumarate	200
2	Azacididine	120
3	<b>Esomeprazole Mg</b>	<b>300</b>
4	Irbesartan	150
5	Montelukast Sodium	150
6	Ranolazin diHCl	250
7	Sildenafil Citrate	100
8	Tadalafil	300
9	<b>Topiramate</b>	<b>300</b>
10	Udenafil	45
11	Venlafaxine Hydrochloride	250
12	Letrozole	30
13	<b>Losartan Potassium</b>	<b>300</b>
14	<b>Metformin Hydrochloride</b>	<b>1000</b>
15	Robeprazole Sodium	150
	<b>Total (Worst Case Scenario –Only 4 products will be in production at any given time.)</b>	<b>1900</b>

Cyclone separator will be coal fired boilers. Scrubbers will be provided to control process emissions viz. HCl, NH<sub>3</sub> and SO<sub>2</sub>. Total fresh water requirement from ground water source will 49.7 m<sup>3</sup>/day. Industrial effluent generation will be 37.4 m<sup>3</sup>/day. Industrial wastewater will be segregated into High TDS/COD and Low TDS/COD effluent streams. High TDS/COD effluent stream will be treated through steam stripper followed by multiple effect evaporator (MEE) and agitated thin film drier (ATFD). Low TDS/COD effluent stream will be treated in effluent treatment plant (ETP) comprising primary, secondary and tertiary treatment. No effluent will be discharged outside the premises and Zero effluent discharge concept will be adopted. Ash from boiler will be sold to brick manufacturers. Evaporator salts, inorganic residue and ETP sludge will be sent to TSDF. Solvent will be sent to recycler. Waste oil and used batteries will be sent to authorized recyclers. DG set (1x 500 KVA) will be installed.

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

project

3. Project location and plant layout.
4. Promoters and their back ground.
5. Regulatory framework
6. A map indicating location of the project and distance from severely polluted area
7. Infrastructure facilities including power sources.
8. Total cost of the project alongwith total capital cost and recurring cost/annum for environmental pollution control measures.
9. Project site location alongwith site map of 10 km area and site details providing various industries, surface water bodies, forests etc.
10. Present land use based on satellite imagery for the study area of 10 km radius.
11. Location of National Park/Wild life sanctuary/Reserve Forest within 10 km radius of the project.
12. Details of the total land and break-up of the land use for green belt and other uses.
13. List of products alongwith the production capacities.
14. Detailed list of raw material required and source, mode of storage and transportation.
15. Manufacturing process details alongwith the chemical reactions and process flow chart.
16. Site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall is necessary.
17. Ambient air quality monitoring at 6 locations within the study area of 5 km., aerial coverage from project site as per NAAQES notified on 16<sup>th</sup> September, 2009. Location of one AAQMS in downwind direction.
18. One season site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall and AAQ data (except monsoon) for PM<sub>10</sub>, SO<sub>2</sub>, NO<sub>x</sub>, CO including HC and VOCs should be collected. The monitoring stations should take into account the pre-dominant wind direction, population zone and sensitive receptors including reserved forests. Data for water and noise monitoring should also be included.
19. Air pollution control measures proposed for the effective control of gaseous emissions within permissible limits.
20. Name of all the solvents to be used in the process and details of solvent recovery system.
21. Design details of ETP, incinerator, boiler, scrubbers/bag filters etc.
22. Details of water and air pollution and its mitigation plan
23. Action plan to control ambient air quality as per NAAQES Standards notified by the Ministry on 16<sup>th</sup> September, 2009.
24. An action plan to control and monitor secondary fugitive emissions from all the sources.
25. Determination of atmospheric inversion level at the project site and assessment of ground level concentration of pollutants from the stack emission based on site-specific meteorological features. Air quality modelling for proposed plant.
26. Source and permission for the drawl of 49.7 m<sup>3</sup>/day ground water from the competent authority. Water balance chart including quantity of effluent generated recycled and reused and discharged.
27. Action plan for zero discharge of effluent should be included.



Monitoring minimum at 6 locations should be carried out to determine the environmental and Geo-hydrological status of the study area and (terrestrial and Aquatic).

29. The details of solid and hazardous wastes generation, storage, utilization and disposal particularly related to the hazardous waste calorific value of hazardous waste and detailed characteristic of the hazardous waste.
30. Action plan for the management of fly ash generated from boiler should be included. Tie-up or agreement with brick manufacturer to be provided.
31. Precautions to be taken during storage and transportation of hazardous chemicals should be clearly mentioned and incorporated.
32. A copy of the Memorandum of Understanding signed with cement manufacturers indicating clearly that they will utilize all the organic solid waste generated.
33. A copy of Memorandum of Understanding (MoU) signed with coal supplier for imported coal and brick manufacturers for management of fly ash.
34. The project shall submit action plan for utilization of MEE salts rather than putting it to TSDF.
35. Authorization/Membership for the disposal of liquid effluent in CETP and solid/hazardous waste in TSDF, if any.
57. Material Safety Data Sheet for all the Chemicals are being used/will be used. CAS No./RTECS No./DOT/UN etc to be mentioned against each chemical.
58. Authorization/Membership for the disposal of solid/hazardous waste in TSDF.
59. Risk assessment for storage for chemicals/solvents. Action plan for handling & safety system.
60. An action plan to develop green belt in 33 % area. Layout plan for green belt shall be provided.
36. 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.
37. Details of occupational health programme.
  - i) To which chemicals, workers are exposed directly or indirectly.
  - ii) Whether these chemicals are within Threshold Limit Values (TLV)/ Permissible Exposure Levels as per ACGIH recommendation.
  - iii) What measures company have taken to keep these chemicals within PEL/TLV.
  - iv) How the workers are evaluated concerning their exposure to chemicals during pre-placement and periodical medical monitoring.
  - v) What are onsite and offsite emergency plan during chemical disaster.
  - vi) Liver function tests (LFT) during pre-placement and periodical examination.
  - vii) Details of occupational health surveillance programme.
38. Socio-economic development activities should be in place.
39. Note on compliance to the recommendations mentioned in the CREP guidelines.
40. 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.
41. EMP should include the concept of waste-minimization, recycle / reuse / recover techniques, Energy conservation, and natural resource conservation.
42. Any litigation pending against the project and/or any direction/order passed by any Court of Law against the project, if so, details thereof.

ucted and issues raised and commitments made by the same should be included in EIA/EMP Report in part with financial budget for complying with the commitments made.

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

The following general points shall be noted:

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

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

7.2.33 Drilling of Exploratory Wells (26 Nos.) in PEL & PML blocks of Cachar Forward Base, in Assam by **M/s ONGC Ltd. - regarding TORs.**

The project authorities gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken alongwith the draft Term of References for the preparation of EIA/EMP. All the projects related to offshore and onshore Oil and Gas exploration, development and production are listed in para 1(b) of schedule of EIA Notification, 2006 covered under category A and appraised at central level.

M/s ONGC Ltd. has proposed for Drilling of Exploratory Wells (26 Nos.) in PEL & PML blocks of Cachar Forward Base, in Assam. Project proponent confirmed that proposal for development well has been dropped. Following wells will be drilled :

S.N.	Well	Latitude	Longitude
Cachar District PML			
1	BUAE	24°35'1.70+	92°51'18.1+
2	RPAA	24°48'19.00+	93°03'09+
3	TNAA	24°33'3.00+	92°53'25.5+

		24°45'21.05+	92°50'05.76+
		24°53'24.81+	92°35'11.38+
6	R-WHR2	24°59'20.45+	92°28'33.51+
7	4 new locations	Under evaluation	
Sector VC PEL			
8	MPM	24°53'56.00+	92°46'51+
9	PMAC	24°52'11.51+	92°58'15.06+
10	TKAC	24°54'20.48+	93°05'12.56+
N Patharia PML			
11	R-PT-8	24°48'11.45+	92°32'40+
12	R-PT-9	24°49'53.48+	92°20'08.07+
13	2 new locations	Under evaluation	
Adamtila Ext. PML			
14	TIAA	24°32'14.68+	92°17'37.23+
15	3 New Locations	Under Evaluation	
Banskhandi PML			
16	BKAC	24°45'30.48+	92°51'30.48+
17	BKDB-A	24°49'15.00+	92°50'56.43+

Water based fluid will be used for drilling. Approximate depth of the well will be 3000 mtrs. Water requirement will be 25 m<sup>3</sup>/day/well. Diesel consumption will be 6 kL/day/well. Waste water Generation will be 15 m<sup>3</sup>/day/well. Spent Oil will be sent to authorized recyclers. Drill Cuttings generation will be 250-300 m<sup>3</sup>/well (to be confined in waste pit).

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

1. A certified report of the status of compliance of the conditions stipulated in the environmental clearance and Consent to Operate for the ongoing / existing operation of the project by the Regional Office of the Ministry of Environment and Forests and SPCB.
2. Executive summary of a project
3. Project description, project objectives and project benefits.

f the each proposed well, any habitation, any other and fauna, approachability to site, other activities satellite imagery for 10 km area.

5. Details of forest land involved in the proposed project. A copy of forest clearance letter, if applicable.
6. Permission from the State Forest Department regarding the impact of the proposed plant on the surrounding National Park/Wild life Sanctuary /Reserve Forest/Eco sensitive area, if any. Approval obtained from the State/Central Government under Forest (Conservation Act, 1980 for the forestland should be submitted.
7. Distance from nearby critically/severely polluted area as per Notification dated 13<sup>th</sup> January, 2010, if applicable.
8. Does proposal involves rehabilitation and resettlement? If yes, details thereof.
9. Details of project cost.
10. Details of all the facilities including CGS, GGS, OCS, produced water treatment etc to be installed. If existing facilities, give details.
11. Environmental considerations in the selection of the drilling locations for which environmental clearance is being sought. Present any analysis suggested for minimizing the foot print giving details of drilling and development options considered.
12. Baseline data collection for air, water and soil for one season leaving the monsoon season in an area of 10 km radius with centre of Oil Field as its centre covering the area of all proposed drilling wells.
  - (i) Topography of the project site.
  - (ii) Ambient Air Quality monitoring at 8 locations for PM<sub>10</sub>, SO<sub>2</sub>, NO<sub>x</sub>, VOCs, Methane and non-methane HC.
  - (iii) Soil sample analysis (physical and chemical properties) at the areas located at 5 locations.
  - (iv) Ground and surface water quality in the vicinity of the proposed wells site.
  - (v) Climatology and Meteorology including wind speed, wind direction, temperature rainfall relative humidity etc.
  - (vi) Measurement of Noise levels within 1 km radius of the proposed wells.
  - (vii) Vegetation and land use; Animal resources
13. Incremental GLC as a result of DG set operation.
14. Potential environmental impact envisages during various stages of project activities such as site activation, development, operation/ maintenance and decommissioning.
15. Actual source of water and ~~±~~Permission for the drawl of water from the Competent Authority. Detailed water balance, waster water generation and discharge.

ures and measures to minimize disturbance due to  
in case coastally located.

17. Treatment and disposal of waste water.
18. Treatment and disposal of solid waste generation.
19. Disposal of spent oil and loose materials.
20. Storage of chemicals and diesel at site.
21. Commitment for the use of WBM only
22. Mud make up and mud and cutting disposal . all options considered should be listed with selective option.
23. Hazardous material usage, storage accounting and disposal.
24. Disposal of packaging waste from site.
25. Oil spill emergency plans in respect of recovery/ reclamation.
26. H<sub>2</sub>S emissions control.
27. Produced oil handling and storage.
28. Details of scheme for oil collection system alongwith process flow diagram and its capacity.
29. Details of control of air, water and noise pollution in oil collection system.
30. Disposal of produced/formation water.
31. Whether any burn pits being utilized for well test operations.
32. Restoration and decommissioning plans which should include mud pits and wastage restoration also and documentation and monitoring of site recovery.
33. Measures to protect ground water and shallow aquifers from contamination.
34. Risk assessment and disaster management plan for independent reviews of well designed construction etc. for prevention of blow out.
35. Environmental management plan.
36. Documentary proof of membership of common disposal facilities, if any.
37. Details of environmental and safety related documentation within the company including documentation and proposed occupational health and safety Surveillance Safety Programme for all personnel at site. This should also include monitoring programme for the environmental.
38. Total capital and recurring cost for environmental control measures.



40. Public hearing to be conducted and issues raised and commitments made by the project proponent on the same should be included in EIA/EMP Report in the form of tabular chart with financial budget for complying with the commitments made.
41. Any litigation pending against the project and or any direction/order passed by any court of law against the project. If so details thereof.
42. A tabular chart with index for point-wise compliance of above TORs.

The following general points should be noted:

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

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

**7.2.34 Construction of a New Crude Distillation Unit and New Vacuum Distillation Unit at Village Anik/Mahul, District Mumbai, Maharashtra by M/s Bharat Petroleum Corporation Ltd.- regarding EC.**

The project authorities and their consultant (Engineers India 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 34<sup>th</sup> Meeting of the Expert Appraisal

g 13<sup>th</sup> -14<sup>th</sup> April 2012 for preparation of EIA/EMP  
y Plants are listed at S.N. 4(a) under Category A  
I.

M/s Bharat Petroleum Corporation Ltd. have proposed for construction of a New Crude Distillation Unit and New Vacuum Distillation Unit at Village Anik/Mahul, District Mumbai, Maharashtra. CDU-1 and FPU were built in 1955. The unit was originally designed for a crude processing capacity of 2.0 MMTPA with two column operation (D-1 & D-5). In the subsequent years the unit capacity was increased to 6 MMTPA by progressing revamp of providing intermediate columns and associated furnaces. The CDU-1 and FPU crude unit are more than 55 years old, hence most of the equipment and structural require frequent maintenance for ensuring sustained integrity. Therefore it is proposed to set up of new state of art integrated CDU, VDU to enhance safety & environment with improved mechanical integrity as replacement of old crude and vacuum units of vintage design. Project cost is Rs. 1419 Crore. No forest land is involved. The above project does not attract CRZ Notification. Total existing plant area is 450 acres. No additional land is required and proposed installation will be installed in an area 197 x 140 m within the existing land available with BPCL refinery. No national park/wildlife sanctuary/eco-sensitive area/ reserve forest is located within 10 Km distance. No additional storage is envisaged. Capacities of the proposed units for new CDU/VDU project are as given below:

S.N.	Unit	Unit Capacity
1	Integrated Crude Distillation (CDU) & Vacuum Distillation Unit (VDU)	6 MMTPA
2	LPG Treating Unit	18923 Kg/hr
3	Sour Water Stripper (SWS)	110 m <sup>3</sup> /hr.

Product yield pattern of the new CDU/VDU project is as given below:

S.N.	Product (MTPD)	6MMTPA Crude Processing	
		Arab Mix	Mumbai High
1	LPG	257	352
2	Stabilised Naphtha	1626	2648
3	Heavy Naphtha	646	1235
4	LT Kero	1754	1019
5	HY Kero	941	1945
6	LT Gas Oil	3289	4616
7	Vacuum Diesel	702	569
8	LVGO	3415	2506
9	HVGO	1200	1995
10	SLOP	155	155
11	VR	3964	925

Additionally, PAs informed the Committee that ambient air quality monitoring was carried out at 5 locations during March to May, 2011 and submitted baseline data indicates range of PM<sub>10</sub> (55.71 ug/m<sup>3</sup>), PM<sub>2.5</sub> (23.33 ug/m<sup>3</sup>), SO<sub>2</sub> (11.2 - 19.1 ug/m<sup>3</sup>) and NO<sub>x</sub> (20.1- 35.5 ug/m<sup>3</sup>). The GLC due to operation of proposed new CDU/VDU facilities and shutdown of existing CDU/VDU is predicted as 16.03 ug/m<sup>3</sup>. The GLC of NO<sub>x</sub> due to emission scenario is predicted as 9.37 ug/m<sup>3</sup>. The resultant GLCs are within the NAAQS. SO<sub>2</sub> and NO<sub>x</sub> emission load after replacing old crude and vacuum distillation units with new CDU/VDU will be 10.44 MTPD and 5.14 MTPD respectively. Provision of high efficiency furnaces (more than 90 % efficiency) to minimize fuel consumption. Low NO<sub>x</sub>, low noise burners have been provided at ne

environmental impact. Analyzer will be provided for emission ( $\text{SO}_2$  and  $\text{NO}_x$ ) and  $\text{O}_2$ . Raw water incorporation of Greater Mumbai water supply will be increased from  $681 \text{ m}^3/\text{hr}$  to  $687.4 \text{ m}^3/\text{hr}$  after replacement of the units. Additional water requirement will be  $6.4 \text{ m}^3/\text{hr}$ . Besides, sea water ( $630 \text{ m}^3/\text{hr}$ ) is being used for fire water and process cooling purpose. No new additional sea water will be required after replacement of the units. Wastewater generation from proposed new CDU/VDU project will be increased from  $26 \text{ m}^3/\text{hr}$  to  $60 \text{ m}^3/\text{hr}$ . Additional wastewater generation will be  $36 \text{ m}^3/\text{hr}$ . Industrial effluent will be treated in the existing ETP capacity of  $240 \text{ m}^3/\text{hr}$ . Treated effluent will be recycled as make up for the raw water cooling tower. Spent catalyst will be sold to authorized metal re-claimers and recyclers. Other spent catalyst will be disposed to authorized TSDF. Spent transformer oil/lube oil additive will be sold to authorized recyclers. Oily sludge will be treated by mechanicals chemical methods for oil recovery.

The Committee deliberated upon the issues raised during the Public Hearing / Public Consultation meeting conducted by the Maharashtra Pollution Control Board on 25<sup>th</sup> September, 2012. The issues raised were regarding publicity of public hearing, total plot area, traffic congestion in Chembur area, disaster management plan, impact of new project, CSR etc. In response project proponent informed that wide publicity regarding public hearing was made as per EIA Notification, 2006. As regard to disaster management plan, Project proponent informed that they are well equipped with onsite and offsite disaster management plan. HAZOP studies are made for proposed plant at the design stage for improving safety factors. Regarding CSR, project proponent informed that company has CSR policy, which is being followed. Issues raised have satisfactorily been responded by the project proponent and incorporated in the final EIA/EMP report.

Certified compliance report dated 7<sup>th</sup> January, 2013 by the Ministry's Regional Office at Bhopal was discussed. It is reported that online monitoring facilities for  $\text{SO}_2$  emissions have been installed.  $\text{SO}_2$  emission levels from refinery were found to be within the prescribed limits. The treated effluent from ETP and flue gases from stacks are meeting the standards. Benzene vapour recovery system has been installed at loading gantry since 2004. The treated effluent is being recycled for cooling tower make up water thereby conserving fresh water. Disposal of hazardous waste is being carried out to authorized recyclers. Compliance of the EC's conditions has been reported satisfactorily.

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

- i. M/s BPCL shall comply with new standards/norms for Oil Refinery Industry notified under the Environment (Protection) Rules, 1986 vide G.S.R. 186(E) dated 18<sup>th</sup> March, 2008.
- ii. Continuous on-line stack monitoring for  $\text{SO}_2$ ,  $\text{NO}_x$  and CO of all the stacks shall be carried out. Low  $\text{NO}_x$  burners shall be installed.
- iii. Fugitive emissions of HC from product storage tank yards etc. must be regularly monitored Sensors for detecting HC leakage shall be provided at strategic locations. Leak Detection and Repair programme shall be implemented to control HC/VOC emissions.

expansion from the plant shall not exceed 10.44  
very units shall be installed for control of H<sub>2</sub>S  
emissions.

- v. As proposed, record of sulphur balance shall be maintained at the Refinery as part of the environmental data on regular basis. The basic component of sulphur balance include sulphur input through feed (sulphur content in crude oil), sulphur output from Refinery through products, byproduct (elemental sulphur), atmospheric emissions etc.
- vi. Total raw water requirement from Municipal Corporation of Greater Mumbai water supply shall not exceed 687.4 m<sup>3</sup>/hr and prior permission shall be obtained from the competent authority. Industrial effluent generation from new CDU/VDU project shall be 60 m<sup>3</sup>/hr and treated in the effluent treatment plant. Treated effluent shall be recycled/reused recycled as make up for the raw water cooling tower. Domestic sewage shall be treated in sewage treatment plant (STP).
- vii. Oil catchers/oil traps shall be provided at all possible locations in rain/storm water drainage system inside the factory premises.
- viii. The membership of common TSDF should be obtained for the disposal of hazardous waste. Copy of authorization or membership of TSDF should be submitted to Ministry's Regional Office at Bhopal. Chemical/inorganic sludge shall be sent to treatment storage disposal facility (TSDF) for hazardous waste. Spent catalyst shall be sent to authorized recyclers/re-processors.
- ix. Green belt shall be developed at least in 45 acres area in and around the plant premises to mitigate the effects of fugitive emissions all around the plant as per the CPCB guidelines in consultation with DFO. Thick greenbelt with suitable plant species shall be developed around unit. Selection of plant species shall be as per the CPCB guidelines.
- x. All the issues raised and commitment made during the public hearing/consultation meeting held on 25<sup>th</sup> September, 2012 shall be satisfactorily implemented. Accordingly, provision of budget to be kept.
- xi. Based on Hazop study carried out and the recommendation to reduce the risk should be expeditiously implemented and report sent to Regional Office of the Ministry.

**7.2.35 Development Drilling Wells (on-land, 24 Development Wells) and establishment of Early Production Facilities (one) at Malleswaram, District Krishna, A.P. by M/s Oil & Natural Gas Corporation Ltd. (ONGCL).- regarding EC.**

Some of the Members of the Committee including Chairman informed that they have either not received the information at all or very late and could not get time to go through. The Committee also requested PAs to send information timely to take proper decision. The proposal is deferred for consideration in next meeting.

ing in AA-ONN-2001/1 Block East Tripura at Village Agartala, Tripura by **M/s Oil and Natural Gas Corporation Limited (ONGC) - regarding EC**

The project authorities and their consultant (M/s Vimta Labs, Hyderabad) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per the Term of References (ToRs) awarded during 34<sup>th</sup> Expert Appraisal Committee (Industry -2) held during 13-14<sup>th</sup> April, 2012 for preparation of EIA/EMP report. All the off-shore and on-shore oil and gas exploration, development & production plants are listed at S.N. 1(b) under Category A and appraised at the Central Level.

M/s Oil and Natural Gas Corporation Limited (ONGC) have proposed for the Exploratory (2 Nos.) Drilling in AA-ONN-2001/1 Block East Tripura at Village Khubal, District North Agartala, Tripura. TOR was awarded for 10 wells but project proponent requested permission only for following two wells:

S.N.	Well Location	Latitude & Longitude	Type of land
1	KHBL	24°12'05.08+92°08'20.31+	Private land (Paddy Land)
2	KHBM	24°10'43.22+92°07'06.63+	Private land (Paddy Land)

Project proponent confirmed that both wells are not located in the forest land. Cost of project is Rs. 100 Crores. There are three reserved forests. Rowa wildlife sanctuary exist in the block but not located with 10 Km distance from proposed 2 well locations. The major water bodies in the project block area cover Juri River, Tilthai Chara, Langal River, Dhalai River and Manu River. The AA-ONN-2001/1 block is sharing interstate boundary with Assam and International Boundary with Bangladesh the well will be drilled upto depth of 3000 m . 3200 m using water based mud.

Ambient air quality monitoring has been carried out at 12 locations during December, 2012 . February, 2013 and the data submitted indicated: PM<sub>10</sub> (22.8-56 µg/m<sup>3</sup>), PM<sub>2.5</sub> (8.2-21.7 µg/m<sup>3</sup>), SO<sub>2</sub> (13.5-26.9 µg/m<sup>3</sup>) and NO<sub>x</sub> (19-41.4 µg/m<sup>3</sup>) are within the permissible limits. AAQ modeling study indicates that the maximum incremental GLCs for SO<sub>2</sub> and NO<sub>x</sub> would be 0.9 µg/m<sup>3</sup> and 2.4 µg/m<sup>3</sup>. The resultant concentrations are within the NAAQS.

Total water requirement will be 25 m<sup>3</sup>/day for drilling and met from tube well tankers. Water based mud will be used. Wastewater generation would be 15-20 m<sup>3</sup>/day. This will be treated in mobile effluent treatment plant (ETP) and then recycled.

Drill cuttings (200-250 m<sup>3</sup>) will be generated during drilling. Drill cuttings will be separated and disposed in impervious lined pit at site. Cuttings will be dried and then covered with top layer of soil. Spent oil will be sold to authorized recyclers / re-processors.

Public hearing was exempted under 7 (ii) of EIA Notification, 2006 as the public hearing already conducted on 26.06.2008.



ns, the Committee found the final EIA/EMP report  
ulate following specific conditions alongwith other  
considering for accord of environmental clearance:

- i. No well shall be drilled in the forest land. Environmental clearance has been accorded for 2 exploratory drilling wells.
- ii. Approach road should be made pucca to mitigate generation of suspended dust.
- iii. Ambient air quality shall be monitored at the nearest human settlements as per the National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16<sup>th</sup> November, 2009 for PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub>, NO<sub>x</sub>, CO, CH<sub>4</sub>, HC, Non-methane HC etc.
- iv. Mercury shall be analyzed in air, water and drill cuttings twice during drilling period.
- v. The company shall make the arrangement for control of noise from the drilling activity. Acoustic enclosure should be provided to DG sets and proper stack height should be provided as per CPCB guidelines.
- vi. Total water requirement should not exceed 25 m<sup>3</sup>/day and prior permission should be obtained from the Competent Authority.
- 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 should be created for oil contaminated and non-oil contaminated. Effluent should be properly treated and treated wastewater should conform to CPCB standards.
- viii. Drilling wastewater including drill cuttings wash water should be collected in disposal pit lined with HDPE lining evaporated or treated and should comply with the notified standards for on-shore disposal. The membership of common TSDf should be obtained for the disposal of drill cuttings and hazardous waste. Otherwise, secured land fill should be created at the site as per the design approved by the CPCB and obtain authorization from the SPCB. Copy of authorization or membership of TSDf should be submitted to Ministry's Regional Office at Shillong.
- ix. Good sanitation facility should be provided at the drilling site. Domestic sewage should be disposed off through septic tank/ soak pit.
- x. Oil spillage prevention scheme should be prepared. In case of oil spillage/contamination, action plan should be prepared to clean the site by adopting proven technology. The recyclable waste (oily sludge) and spent oil should be disposed of to the authorized recyclers.
- xi. The company should comply with the guidelines for disposal of solid waste, drill cutting and drilling fluids for onshore drilling operation notified vide GSR.546(E) dated 30<sup>th</sup> August, 2005.
- xii. The Company should take necessary measures to prevent fire hazards, containing oil spill and soil remediation as needed. Possibility of using ground flare should be explored. At the place of ground flaring, the overhead flaring

should be installed to minimize gaseous emissions

- xiii. The company should develop a contingency plan for H<sub>2</sub>S release including all necessary aspects from evacuation to resumption of normal operations. The workers should be provided with personal H<sub>2</sub>S detectors in locations of high risk of exposure along with self containing breathing apparatus.
- xiv. The Company should carry out long term subsidence study by collecting base line data before initiating drilling operation till the project lasts. The data so collected should be submitted six monthly to the Ministry and its Regional Office at Shillong.
- xv. Blow Out Preventer (BOP) system should be installed to prevent well blowouts during drilling operations. BOP measures during drilling should focus on maintaining well bore hydrostatic pressure by proper pre-well planning and drilling fluid logging etc.
- xvi. Emergency Response Plan (ERP) should be based on the guidelines prepared by OISD, DGMS and Govt. of India.
- xvii. The company should take measures after completion of drilling process by well plugging and secured enclosures, decommissioning of rig upon abandonment of the well and drilling site should be restored to the original condition. In the event that no economic quantity of hydrocarbon is found a full abandonment plan should be implemented for the drilling site in accordance with the applicable Indian Petroleum Regulations.
- xviii. Occupational health surveillance of the workers should be carried out as per the prevailing Acts and Rules.
- xix. In case the commercial viability of the project is established, the Company should prepare a detailed plan for development of oil and gas fields and obtain fresh environmental clearance from the Ministry.
- xx. Restoration of the project site should be carried out satisfactorily and report should be sent to the Ministry & Regional Office at Shillong.
- xxi. Oil content in the drill cuttings should be monitored by some Authorized agency and report should be sent to the Ministry & Regional Office at Shillong.
- xxii. Under Corporate Social Responsibility (CSR), sufficient budgetary provision should be made for health improvement, education, water and electricity supply etc. in and around the project.
- xxiii. Company should have own Environment Management Cell having qualified persons with proper background.
- xxiv. Company should prepare operating manual in respect of all activities. It should cover all safety & environment related issues and system. Measures to be taken for protection. One set of environmental manual should be made available at the drilling site/ project site. Awareness should be created at each level of the management. All the schedules and results of environmental monitoring should be available at the project site office.

MMTPA) cum Petrochemical Complex (Rajasthan  
ge Leelala, Leelasar, Januon Ki Dhani, Sagarmani  
Godaron Ki Dhani, Tehsil Baytu, District Barmer Rajasthan by **M/s HPCL.** -  
**regarding TORs.**

The project authorities gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken alongwith the draft Term of References for the preparation of EIA/EMP report. All the Petroleum Refinery Plants are listed at S.N. 4(a) under Category A and appraised at the Central level.

M/s HPCL have proposed for setting up of Grass root Refinery (9 MMTPA) cum Petrochemical Complex (Rajasthan Refinery Project) at Village Leelala, Leelasar, Januon Ki Dhani, Sagarmani Godaron Ki Dhani, Tehsil Baytu, District Barmer Rajasthan. The cost of project is Rs. 37230 Crore. No forest land is involved. No court case is pending against the project. Total plot area is 3866 acres. Project proponent confirmed that separate application is being submitted for township project. 50% Rajasthan crude and balance imported Persian gulf crude will be used. Euro IV MS production facility will be installed. Petrochemicals viz. Poly propylene, Poly ethylene, Butadiene, Benzene, Toluene and Xylene-Resid fluid catalytic cracking unit, steam cracker, poly-propylene and poly-ethylene units will be installed. Following is the configuration of the proposed refinery:

Process units	Unit capacity (MMTPA)
CDU/VDU	9.00
NHT	1.2
DHDT	3.30
RFCCU	2 x 2.55
PPU	3 x 0.39
ARDS	2 x 2.81
RFCC Gasoline Depantanizer	1.70
GASOLINE HDT	1.20
RFCC C5 Merox	0.48
Duel Feed Steam Cracker	0.63
Ethylene recovery unit	0.136
Benzene Recov/Py Gas HDT	0.08/0.43
BTX	0.43
LDPE	2 x 0.38
Sat LPG Merox	0.08 MMTPA
Sat. LPG Depropaniser	0.08 MMTPA
Sat/Unsat. FG treating Unit	0.493 MMTPA
Hydrogen Generation unit (HGU)	61 KTPA
Pressure Swing Absorption (PSA)	28 KTPA
Sour Water Stripper-I (SWS-I)	100 m3 per hour
Sour Water Stripper . II (SWS-II)	250 m3 per hour
Amine Regeneration Unit (ARU)	770 m3 per hour
Sulphur Recovery Unit (SRU)	2 x 160 TPD

**Following is the details of products:**

Products	Units	Product State
POLYPROPYLENE	MT/DAY	3505.0
BUTADINE	MT/DAY	593.0

	/DAY	2225.0
	/DAY	235.0
	/DAY	310.0
MIX XYLENE	MT/DAY	117.0
92 RON GASOLENE, EURO-IV	KL/DAY	6669.4
ULS DIESEL, EURO . V	KL/DAY	10907.2
FUEL OIL	MT/DAY	869.6
SULPHUR	MT/DAY	321.0
FUELS & LOSSES	MT/DAY	5394.0

Raw water requirement from IG canal at Mohangarh will be 25 MGD. Additional back up water from aquifer will be used. Power requirement will be 210 MW in phase . 1. A gas based captive power plant is proposed.

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

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

material and products should be included.  
zone around the proposed site with map.  
for air, water and soil for the period of 3 months

(except monsoon season) for :

- i. Ambient air quality monitoring for PM<sub>2.5</sub>, PM<sub>10</sub>, SO<sub>2</sub>, NO<sub>x</sub>, 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.
19. Action plan to achieve smokeless flare should be included.
  20. Details of Sulphur balance in the proposed refinery unit.
  21. Unit-wise air pollution control devices to be installed.
  22. Details of water consumption and source of water supply, waste water generation, treatment and utilization of treated water generated from the facilities and effluent disposal. Detailed water balance chart to be submitted.
  23. Details of proposed effluent treatment plant alongwith water quality of inlet and outlet of ETP.
  24. A note on the impact of drawl of water on the nearby River/Canal during lean season. Proved details of peak and lean season flow of the river /canal.
  25. Hydrogeological study of the area to be carried out and report submitted.
  26. Ground water modeling showing the pathways of the pollutants should be included.
  27. Detailed solid waste generation, collection, segregation, its recycling and reuse, treatment and disposal.
  28. Explore the possibility for utilization of treated wastewater in exploration /development wells in nearby oil fields.
  29. Note on compliance to the recommendations mentioned in the CREP for oil refineries and petrochemical industries.
  30. A note on implementation of new refinery standards for refineries.
  31. Quantification of oil sludge generation from the proposed refinery including management plan for the oily sludge handling. Details of temporary storage for the oil sludge.
  32. Details of catalyst waste generated from the refinery along with temporary storage facility at site. Action plan for disposal of the catalyst solid waste.
  33. Land use & cropping pattern, vegetation, ecology, flora & fauna
  34. Demography & socio-economics of the area.
  35. Assessment of impact on air, water, soil, solid/hazardous waste and noise levels.
  36. List of hazardous chemicals (as per MSIHC rule) with toxicity levels.
  37. Details of proposed preventive measures for leakages and accident.
  38. Details of Vapour Recovery System.
  39. Earmarking of area for parking of Lorries at a remote location to avoid congestion.
  40. Traffic management with adequate width of approach road to avoid congestion and to have safe exit in emergencies.
  41. Type of seismic zone.
  42. Full Quantitative Risk Assessment & Disaster Management Plan should include:
    - a. Identification of hazards
    - b. Consequence Analysis
    - c. Determination of Individual Risk and Societal Risk
    - d. Proposed measures for risk reduction.



clusion impact study.

health programme.

- i) To which chemicals, workers are exposed directly or indirectly.
  - ii) Whether these chemicals are within Threshold Limit Values (TLV)/ Permissible Exposure Levels as per ACGIH recommendation.
  - iii) What measures company have taken to keep these chemicals within PEL/TLV.
  - iv) How the workers are evaluated concerning their exposure to chemicals during pre-placement and periodical medical monitoring.
  - v) What are onsite and offsite emergency plan during chemical disaster.
  - vi) Liver function tests (LFT) during pre-placement and periodical examination.
  - vii) Details of occupational health surveillance programme.
44. Action plan for development of green belt in 33% alongwith layout plan.
  45. Total capital cost and recurring cost/annum for environmental pollution control measures. Break up details should also be included.
  46. 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.
  47. 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.
  48. Details of Corporate Social Responsibility (CSR) including sufficient budgetary provision for health improvement, education, water and electricity supply etc. in and around the project.
- 49. 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.
50. Any litigation pending against the project and /or any direction /order passed by any Court of Law against the project, if so, details thereof.
  51. 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.
  52. A tabular chart indicating point-wise compliance of the TOR.  
The following general points should be noted:
    - i. All documents should be properly indexed, page numbered.
    - ii. Period/date of data collection should be clearly indicated.

translation of all material provided in Regional

EC should quote the MOEF file No. and also attach

a copy of the letter.

- v. The copy of the letter received from the Ministry should be also attached as an annexure to the final EIA-EMP Report.
- vi. The final EIA-EMP report submitted to the Ministry must incorporate the issues in this letter. The index of the final EIA-EMP report must indicate the specific chapter and page no. of the EIA-EMP Report.
- vii. Certificate of Accreditation issued by the QCI to the environmental consultant should be included.

It was decided that TORs prescribed by the Expert Appraisal Committee (Industry) should be considered for preparation of EIA/EMP report for the above mentioned project in addition to all the relevant information as per the Generic Structure of EIA given in Appendix III and IIIA in the EIA Notification, 2006. The draft EIA/EMP report should be submitted to the Rajasthan State 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.

### **7.3.0 Reconsideration**

#### **7.3.1 Expansion of Mini Refining Plant (55,000 KLPA to 1,20,000 KLPA) at Village Devaliya Taluka Anjar, District Kachchh, Gujarat by **M/s Kandla Energy and Chemicals Ltd. -Reg. Environmental Clearance.****

Project proposal was considered in the 2<sup>nd</sup> Reconstituted *Expert Appraisal Committee (Industry) meeting held during 29<sup>th</sup> . 31<sup>st</sup> October, 2012 and the Committee desired following information:*

1. LDAR measurement data from the exhaust of vaccum pump of the existing unit.
2. Baseline VOC in the ambient air to be monitored for 1 month data.
3. Evaporation loss is envisaged around 100 m<sup>3</sup>/day. Revised water balance chart to be submitted.

Project proponent vide letter dated nil (Received in the Ministry on 7<sup>th</sup> November, 2012) submitted the following additional information:

1. LDAR (Leak Detection and Repair ) program has been carried out and VOC levels have been observed in the range of 3.6 ppm to 9.5 ppm.
2. VOCs levels in the ambient air quality has been found to be 3.6 ug/m<sup>3</sup>.
3. As per water balance chart, water requirement will be increased from 1.5 m<sup>3</sup>/day to 16.5 m<sup>3</sup>/day. Industrial wastewater generation will be increased from 0.3 m<sup>3</sup>/day to 2.3 m<sup>3</sup>/day.

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

- i Bagfilter alongwith adequate stack height should be provided to coal fired thermic fluid heater to control particulate emissions.

installed in the work zone. When monitoring results exceed the permissible limits, effective measures shall be

- iii All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.
- iv The levels of PM<sub>10</sub>, SO<sub>2</sub>, NO<sub>x</sub>, VOC and HC (Methane and Non-methane) in ambient air shall be monitored and displayed at a convenient location near the main gate of the company and at important public places.
- v Total fresh water requirement from Narmada River water supply shall not exceed 16.5 m<sup>3</sup>/day and prior permission shall be obtained from the competent authority and a copy submitted to the Ministry's Regional Office at Bhopal. No ground water shall be used.
- vi Total industrial wastewater generation should not exceed 2.3 m<sup>3</sup>/day. Industrial effluent should be treated in ETP. Treated effluent shall be reused for horticulture purpose within factory premises after achieving desired water quality for various purposes.
- vii No effluent shall be discharge outside the factory premises and zero effluent discharge concept shall be adopted.
- 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 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.
- ix Proper spillage control management plan should be prepared and implemented.
- x Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.
- xi The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire fighting system shall be as per norms.
- xii Fire hydrant system shall be provided alongwith fire monitor and flame detection system in the process as well as storage areas.
- xiii Greenbelt shall be developed in 12.5 acres out of total land 60 acres.
- xiv All the commitments made to the public during public hearing/public consultation meeting held on 8<sup>th</sup> May, 2012 shall be satisfactorily implemented and adequate budget provision shall be made accordingly.
- xv At least 5 % of the total cost of the project shall be earmarked towards the Enterprise Social Commitment 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 Bhopal.

Program shall be ensured accordingly in a time bound

**7.3.2 Grain based Distillery Unit (Ethanol Plant, 120 KLPD) alongwith Captive Power Plant (5.0 MW) at Sy. No. 4,5,6,7 village Nadipalle, Mandal Pusapatirega, District Vizianagaram, Andhra Pradesh by M/s Veda Biofuel Pvt. Ltd. - regarding EC.**

Project proposal was considered in the 4<sup>th</sup> Reconstituted *Expert Appraisal Committee (Industry) meeting held during 8<sup>th</sup> . 9<sup>th</sup> January, 2013 and the Committee desired following information:*

1. Confirmation needs to be obtained from the AP Pollution Control Board whether any of the District Magistrate/ District Collector/ Dy. Commissioner or his or her representative not below the rank of Additional District Magistrate has supervise and presided over the entire public hearing process.

APPCB vide letter no. PCB/ROVZ/Tech/Z-411/2013-855 dated 7<sup>th</sup> February, 2013 has informed that the public hearing presided and concluded by the District Revenue Officer, who is equivalent to the cadre of Additional District Magistrate in the District and is eligible to conduct public hearing as per the MoEF, Govt. of India, Notification No. SO 1533 dated 14.09.2006 and circular issued thereof.

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

- i. Distillery unit should be based on Grain based only and no Molasses based distillery unit should be operated.
- ii. Bag filter alongwith stack of adequate height should be provided to coal/biomass fired boiler to control particulate emission within 50 mg/Nm<sup>3</sup>.
- iii. Pucca approach road to project site should be constructed prior to commencing construction activity of the main distillery so as to avoid fugitive emissions.
- iv. Total fresh water requirement from ground water source should not exceed 11 KL/KL of alcohol (i.e. 1320 m<sup>3</sup>/day) for distillery& CPP( 5 MW).
- v. Prior permission for drawl of water should be obtained from the CGWA/SGWA.
- vi. Water consumption should be reduced by adopting 3 R $\phi$  (reduce, reuse and recycle) concept in the process.
- vii. Spent wash generation should not exceed 6 KI/KI of alcohol. Spent wash should be treated through decanter and concentrated in multi-effect evaporator (MEE) followed by dryer to form DWGS and DDGS. Spentlees, effluent from bottle washing, utilities and cogeneration unit should be treated in effluent treatment plant (ETP) and water quality of treated effluent should meet the norms prescribed by CPCB/SPCB and recycle/reuse.
- viii. Spent wash should be stored in impervious lagoon with HDPE lining as per CPCB guidelines and should be kept in proper condition to prevent ground water pollution. Storage capacity of spent wash lagoon should be for 5 days.

and co-generation power plant should be discharged  
zero discharge should be adopted.

- x. Adequate numbers of ground water quality monitoring stations by providing piezometers around the project area should be set up. Sampling and trend analysis monitoring must be made on monthly a basis and report submitted to SPCB and this Ministry. The ground water quality monitoring for pH, BOD, COD, Chloride, Sulphate and total dissolved solids should be monitored.
- xi. No storage of wet cake should be done at site. An additional dryer should be installed so that at any time wet cake is not sold then wet cake should be converted into dry cake by operating additional dryer.
- xii. Biomass storage should be done in such a way that it does not get air borne or fly around due to wind.
- xiii. Boiler ash should be stored separately as per CPCB guidelines so that it should not adversely affect the air quality, becoming air borne by wind or water regime during rainy season by flowing alongwith the storm water. Direct exposure of workers to fly ash & dust should be avoided.
- xiv. As proposed, fly ash will be transferred in the covered truck. Ash shall be transferred to the brick manufacturing. A tie-up should be made with brick manufacturer.
- xv. Occupational health surveillance programme should be undertaken as regular exercise for all the employees. The first aid facilities in the occupational health centre should be strengthened and the regular medical test records of each employee should be maintained separately.
- xvi. Dedicated parking facility for loading and unloading of material should be provided in the factory premises. Unit should develop and implement good traffic management system for their incoming and outgoing vehicles to avoid congestion on the public road.
- xvii. As proposed, thick green belt in 33 % will be developed all round the plant boundary to act as noise attenuator and plantation shall be done as per the CPCB guidelines in consultation with DFO. Thick greenbelt with suitable plant species shall be developed around the proposed distillery to mitigate the odour problem.
- xviii. All the commitments made to the public during the Public Hearing/Public Consultation meeting held on 26<sup>th</sup> September, 2012 should be satisfactorily implemented and a separate budget for implementing the same should be allocated and information submitted to the Ministry, Regional Office at Bangalore.
- xix. 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, Regional Office at Bangalore. Implementation of such program should be ensured accordingly in a time bound manner.



for production of 2200 MTPD Ammonia and 3850  
CPP (33 MW) at Panagarh, Burdwan District, West  
**ertilizers and Chemicals – Amendment in EC**

Project proposal was considered in the 3<sup>rd</sup> Reconstituted *Expert Appraisal Committee (Industry) meeting held during 3<sup>rd</sup>, 5<sup>th</sup> December, 2012 and the Committee desired following information:*

- 1 Effluent discharge point in river and dilution study in respect of important parameters of water quality to be conducted.
- 2 Air quality modelling for the GLC.

Project proponent vide letter no. MFCL/MoEF/EC/MP/CPP/03-13 dated 15<sup>th</sup> March, 2013 submitted the following additional information:

- i. Air modeling was conducted to predict the impact of the emissions on ambient air quality from the proposed auxiliary boiler. Predicted ground level concentration in respect of SO<sub>2</sub> and NO<sub>x</sub> were observed to be 0.01 ug/m<sup>3</sup> and 0.42 ug/m<sup>3</sup>, which are within the limits.
- ii. Ministry vide letter dated 22<sup>nd</sup> April, 2010 granted environmental clearance, wherein the effluent quantity mentioned is 202 m<sup>3</sup>/hr. However, project proponent after detailed engineering have been able to reduced the quantity which is now estimated to be at 201 m<sup>3</sup>/hr. The effluent generation from the cooling tower, oily water and DM plant effluent will be 201 m<sup>3</sup>/hr. MFCL exercised various options of reuse, recycle and recovery of effluent for its applications within the process for greenbelt development and horticulture application. Now, it is proposed to dispose 201 m<sup>3</sup>/hr. treated wastewater into the nearby natural water bodies in a safe manner. River water quality modeling has been undertaken to evaluate the pollutant dilution pattern in the Damodar River during the lean water flow scenarios. Qual2Kw model was applied for the study in Damodar River. A minimum river water flow of 5000 m<sup>3</sup>/hr is said to be mandatorily maintained by the authorities during all season of the year. The river water flow during February 2013 was measured to be 288000 m<sup>3</sup>/hr. It was inferred from the model output that 5 to 10 time dilution in the concentration of various pollutants could be achieved in the river with the lowest flow of 5000 m<sup>3</sup>/hr. The overall increase in the pH level of the background river water will not be more than 0.05. there is insignificant impact of TSS on the river water quality. In case of minimum flow, the TDS levels in the river increases from the background value of 294 mg/l and reaches a resultant concentration of 364 mg/l at a distance of 6 Km downstream from the outfall. However, considering current flow i.e. in February, 13, there is marginal increase in TDS levels from background levels (218 mg/l to 219 mg/l). In case of minimum flow, the SAR levels in the river increases from the background value of 4.45 and reaches a resultant SAR value of 4.81. However, considering current flow i.e. in February, 13, there is marginal increase in SAR value from background 3.42 to 3.43. In case of minimum flow in summer indicates, the BOD<sub>5</sub> days levels in the river water reaches the background value of 3.35 mg/l within a distance of 500 meters.. The DO levels were estimated to 6 mg/l during summer and during February, 2013, DO level reaches a value of 8.0 mg/l. Other pollutants such as Ammonical Nitrogen, Total Kjeldahl Nitrogen, Free Ammonical Nitrogen, Nitrate Nitrogen, Oil & Grease, COD, Phosphate as P, Zinc as Zn, Free Residual Chlorine and Iron were studied. Due to lower

on of these pollutants in the river as well as in the discharge, the envisaged impact due to these pollutants is significant. As per study it is recommended to locate the outfall point at least 4 to 5 Km in the upstream of the Rondia Weir.

After detailed deliberations, the Committee found the additional information satisfactory and recommended the proposal for amendment with following specific conditions alongwith other environmental conditions:

- i. Enhancement of captive power plant capacity from 33 MW to 54 MW comprising of one GTG of 24 MW and one STG of 30 MW. The fuel shall be used as gas. Low NOx burner shall be installed.
- ii. The effluent generation from the cooling tower, oily water and DM plant effluent shall not exceed 201 m<sup>3</sup>/hr. All the effluents after treatment shall be routed to a properly lined guard pond/holding pond for equalization and final control. In the guard pond/holding pond, automatic monitoring system for flow, and relevant pollutants (i.e. pH, ammonical nitrogen, nitrate nitrogen etc) shall be provided with high level alarm system.
- iii. The treated effluent shall be discharged into the River Damodar after conforming to the standards prescribed for the effluent discharge and obtaining permission from the WBSPCB. No process effluent shall be discharged in and around the project site.
- iv. Regular monitoring of ground water by installing peizometric wells around the guard pond and sludge disposal sites shall be periodically monitored and report shall be submitted to the concerned Regional Office of the Ministry, CPCB and SPCB.

#### **7.3.4 Proposed Additional Exploratory Drilling (01 well) in Kangra-Mandi under PEL Block, Himachal Pradesh by M/s ONGC Ltd. - regarding amendment in EC**

Project proposal was considered in the 5<sup>th</sup> Reconstituted *Expert Appraisal Committee (Industry) meeting held during 31<sup>st</sup> January, 2013 . 1<sup>st</sup> February, 2013 and the Committee desired following information:*

1. Details of sensitive areas such as coral reef, marine water park, sanctuary and any other eco-sensitive area.
2. Details of forest land involved in the proposed project. A copy of forest clearance letter, if applicable.
3. Baseline data collection in respect of air, water and soil for one month.
4. Details of effluent generation and its treatment.
5. Disposal of drill cutting.
- 3 Restoration and decommissioning plans which should include mud pits and wastage restoration also and documentation and monitoring of site recovery.

Project proponent vide letter dated 5<sup>th</sup> April, 2013 submitted the above additional information.

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

- i. Ambient air quality should be monitored at the nearest human settlements as per the National Ambient Air Quality Emission Standards issued by the

No. 826(E) dated 16<sup>th</sup> November, 2009 for PM<sub>10</sub>,  
CH<sub>4</sub>, Non-methane HC etc.

- ii. Approach road should be made pucca to mitigate generation of suspended dust.
- iii. The company should make the arrangement for control of noise from the drilling activity. Acoustic enclosure should be provided to DG sets and proper stack height should be provided as per CPCB guidelines.
- iv. Total water requirement should not exceed 20 m<sup>3</sup>/day/well and prior permission should be obtained from the Competent Authority.
- v. The company should construct the garland drain all around the drilling site to prevent runoff of any oil containing waste into the nearby water bodies. Separate drainage system should be created for oil contaminated and non-oil contaminated. Effluent should be properly treated and treated wastewater should conform to CPCB standards.
- vi. Drilling wastewater including drill cuttings wash water should be collected in disposal pit lined with HDPE lining evaporated or treated and should comply with the notified standards for on-shore disposal. The membership of common TSDF should be obtained for the disposal of drill cuttings and hazardous waste. Otherwise, secured land fill should be created at the site as per the design approved by the CPCB and obtain authorization from the SPCB. Copy of authorization or membership of TSDF should be submitted to Ministry Regional Office at Chandigarh.
- vii. Good sanitation facility should be provided at the drilling site. Domestic sewage should be disposed off through septic tank/ soak pit.
- viii. Oil spillage prevention scheme should be prepared. In case of oil spillage/contamination, action plan should be prepared to clean the site by adopting proven technology. The recyclable waste (oily sludge) and spent oil should be disposed of to the authorized recyclers.
- ix. The company should comply with the guidelines for disposal of solid waste, drill cutting and drilling fluids for onshore drilling operation notified vide GSR.546(E) dated 30<sup>th</sup> August, 2005.
- x. The Company should take necessary measures to prevent fire hazards, containing oil spill and soil remediation as needed. Possibility of using ground flare should be explored. At the place of ground flaring, the overhead flaring stack with knockout drums should be installed to minimize gaseous emissions during operation.
- xi. The company should develop a contingency plan for H<sub>2</sub>S release including all necessary aspects from evacuation to resumption of normal operations. The workers should be provided with personal H<sub>2</sub>S detectors in locations of high risk of exposure along with self containing breathing apparatus.
- xii. Blow Out Preventer (BOP) system should be installed to prevent well blowouts during drilling operations. BOP measures during drilling should

well bore hydrostatic pressure by proper pre-well  
d logging etc.

- xiii. Emergency Response Plan (ERP) should be based on the guidelines prepared by OISD, DGMS and Govt. of India.
- xiv. The company should take measures after completion of drilling process by well plugging and secured enclosures, decommissioning of rig upon abandonment of the well and drilling site should be restored to the original condition. In the event that no economic quantity of hydrocarbon is found a full abandonment plan should be implemented for the drilling site in accordance with the applicable Indian Petroleum Regulations.
- xv. Occupational health surveillance of the workers should be carried out as per the prevailing Acts and Rules.
- xvi. In case the commercial viability of the project is established, the Company should prepare a detailed plan for development of oil and gas fields and obtain fresh environmental clearance from the Ministry.
- xvii. Restoration of the project site should be carried out satisfactorily and report should be sent to the Ministry's Regional Office at Chandigarh.
- xviii. Oil content in the drill cuttings should be monitored by some Authorized agency and report should be sent to the Ministry's Regional Office at Chandigarh.
- xix. Under Corporate Social Responsibility (CSR), sufficient budgetary provision should be made for health improvement, education, water and electricity supply etc. in and around the project.
- xx. Company should have own Environment Management Cell having qualified persons with proper background.
- xxi. Company should prepare operating manual in respect of all activities. It should cover all safety & environment related issues and system. Measures to be taken for protection. One set of environmental manual should be made available at the drilling site/ project site. Awareness should be created at each level of the management. All the schedules and results of environmental monitoring should be available at the project site office.

#### **7.4.0 Any Other**

- 7.4.1 Expansion for 283 TPD Membrane Cell ( Conversion from Mercury Cell) Caustic Soda Plant with 125 TPD Iron Oxide Plant and Installation of 2 x25 MW captive Power Plant at Sahupuram Tirchendur Tuticorin, TN **by M/s DCW- extension of the validity of EC.**

MoEF vide letter no. J-11011/426/2006-IA . II dated 7<sup>th</sup> June 2007 has issued environmental clearance for expansion for 283 TPD Membrane Cell ( Conversion from Mercury Cell) Caustic Soda Plant with 125 TPD Iron Oxide Plant and Installation of 2 x25 MW captive Power Plant at Sahupuram Tirchendur Tuticorin, TN.

It is noted that project regarding conversion of existing soda manufacturing cell based plant was already commissioned in 2007. Consent for establish and consent to operate were obtained from TNPCB vide consent order no. 4001 under Air Act & 4086 under Water Act dated 03.09.2007. Coal based cogeneration power plant (2x25 MW) was commissioned in the year 2008 and consent to operate was granted by TNPCB vide Consent Order No. 4144 under Air Act & 4200 under Water Act dated 17.11.2007. Now, project proponent informed that regarding iron oxide plant, unit has undertaken up bench scale and pilot studies in association with M/s Rockwood Mineral Inc., USA and detailed engineering was completed during October, 2012. The site construction activities were commenced during the month of July 2011 itself, synchronizing with the section wise completion of detailed engineering. Presently about 60 % of the Civil works and about 45-50% of the mechanical works were completed as of December, 2012. Therefore, project proponent has requested to extend the validity of the environmental clearance for further period of five years.

The Committee noted that the Iron Oxide plant is a pollution abatement project (usage of leach liquor for the production of Iron Oxide pigment and  $\text{CaCl}_2$  granule as by product) and known as Synthetic Iron Oxide Plant, which will create value added products from the waste generated for the existing facility. The Committee desired that the Unit should make full effort to implement this project and the plant should be commissioned within a period of six months from the date of issue of letter. Compliance report on the commissioning status from the Ministry of Regional Office, Bangalore and TNPCB shall be obtained after six months. Compliance Status may be put up before the Committee.

- 7.4.2 Sodium Carboxy Methyl Cellulose (6000 TPA) Plant at Plot No.377-1A2, 4, 5, 6, 7, 11 & 12, 378-1&2, 383-1A, 1B, 1C, 1D1, 1D2, 1E, 1F & 1G1 and 384-1A at Village Getnamallee, Taluka Gummidipoondi, District Thiruvallur, Tamil Nadu by **M/s Oren Hydrocarbons Pvt. Ltd.- amendment in TOR.**

MoEF vide letter no. J-11011/18/2012-IA . II dated 30th July 2012 has issued TOR for the above mention project.

Earlier they have proposed plot area of 17.35 acres with plot nos. 377-1A2, 4, 5, 6, 7, 11 & 12, 378-1&2, 383-1A, 1B, 1C, 1D1, 1D2, 1E, 1F & 1G1 and 384-1A

Now, project proponent has requested to drop the plot no. 378-1 & 2, 383-1E, 1F & 1G1 and 384-1A for an extent of 9.49 acres. Therefore, the total area of the proposed plant would be extent of 7.86 acres.

After detailed deliberations, the Committee recommended the proposal.

- 7.4.3 Opinion with respect to applicability of Environmental Clearance for the manufacture of Synthetic Inorganic Zeolite- 4A+ by **M/s Credo Mineral Industries Ltd.** at 70/1 and 71/1, Village Naredi, District Kutch, Gujarat.- **Clarification req.**

GPCB vide letter dated 15<sup>th</sup> December, 2012 has forwarded a copy of the letter received from M/s Credo Mineral Industries Ltd. for opinion with respect to the applicability of environmental clearance. The Committee noted



process of Synthetic Inorganic Zeolite- 4A+ involves the reaction of sodium silicate and alkali and formation of Sodium aluminate, sodium silicate solution in presence of alkali to produce detergent grade Zeolite-4A. Chemical process indicates some chemical reaction and formation of new compound. Whereas mineral beneficiation is a process by which valuable constituents of an ore are concentrated by means of a physical separation process. Therefore the process for manufacturing of Zeolite 4 A does not fall within the ambit of mineral beneficiation.

- 7.4.4 Proposed Phase -IV Expansion of Integrated Steel Plant at Village Chadri Hariharpur, Tehsil Panposh, block Kuarmunda, District Sundargarh in Orissa by **M/s Adhunik Metaliks Limited.-Site Visit Report regarding.**

#### Site Visit Report

As per recommendations of the Expert Appraisal Committee (Industry) in its 3<sup>rd</sup> Meeting held during 3<sup>rd</sup>. 5<sup>th</sup> December, 2012, a sub-committee comprising of Shri R K Garg, Vice Chairman, Dr. B. Sengupta, member, EAC alongwith a representative from the Ministry was to visit the project site to assess the existing environmental scenario and recommend the additional environmental protection measures to be undertaken by the above mentioned project.

Site visit was conducted by the subcommittee during 9<sup>th</sup> March, 2013 and following officials were present:

(A) From **M/s Adhunik Metaliks Limited.**

1. Shri Ashok Kumar, CEO
2. Shri Sanjay Pratap, Executive Director
3. Shri NN Thatoi, President & COO
4. Shri Arun Kataruka, Executive Director
5. Shri S S Sethi (EVP-DRI Plant & COO)
6. Shri B P Pandey (VP-HR & IR)
7. Shri R N Chaudhary ( VP . E & A)
8. Shri Subhash Jetly, Sr. Manager

(B) From Expert Appraisal Committee (Industry):

- i. Shri R K Garg, Vice Chairman
- ii. Dr. B. Sengupta, Member

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

- iii. Shri A N Singh, Dy. Director (S), MoEF

(D) From Orissa State Pollution Control Board

Shri Sanjay Pratap, Executive Director, M/s Adhunik Metaliks Limited briefed about the project. Expansion phase (iv) will be carried out for coal beneficiation plant, Iron ore beneficiation plant, iron ore pelletisation plant, sinter plant at Village Chadri Hariharpur, Tehsil Panposh, Block Kuarmunda, District Sundergarh, Orissa. The land

78 ha. Additional land requirement for the proposed  
and is already available. The existing and proposed

S. No.	Product/ Plant	Approved Capacity [TPA]	Installed Capacity [TPA]	Proposed Additional Capacity in Phase -4 Expansion [TPA]	Total Capacity After Expansion [TPA]
1	Sponge Iron	3,60,000	3,60,000	4,20,000	7,80,000
2	Hot Metal / Pig Iron	2,96,700	1,48,350	2,51,300	3,99,650
3	Steel from EAF	4,16,300	4,16,300	4,63,300	8,79,600
4	Steel from LRF	4,16,300	4,16,300	4,63,300	8,79,600
5	Steel from IF	1,47,200	1,47,200	1,14,000	2,61,200
6	Steel From LRF (IF Route)	-	-	114000	114000
7	Stainless Steel from AOD	1,23,000	1,23,000	nil	1,23,000
8	Steel Billets/Blooms (CCM)	5,24,300	5,24,300	5,55,400	10,79,700
9	Billets (Stainless steel)	1,65,000	1,65,000	nil	1,65,000
10	Ferro Alloy	47,500	47,500	nil	47,500
11	Sinter (for MBF)	96,000	96,000	3,05,000	4,01,000
12	Rolled Product (Stainless Steel Alloy Steel)	2,20,000	2,20,000	nil	2,20,000
13	Oxygen Plant (M <sup>3</sup> /annum)	97,92,000 m <sup>3</sup> /annum & 100 PD	97,92,000 m <sup>3</sup> /annum & 100 TPD	2 x 50 TPD	200 TPD
14	(WHRB + STEAM BOILER) Captive Power (MWH)	38	34	75	109
15	Coke oven (TPA)	1,00,000	1,00,000		1,00,000

			00	7,00,000	10,00,000	17,00,000
17	Lime Calcination Plant ( 2x 80 TPD)	52,800	26,400			26,400
18	Producer Gas Plant	7000 Nm <sup>3</sup> /Hr	7000 Nm <sup>3</sup> /Hr			7000 Nm <sup>3</sup> /Hr
19	Iron ore Beneficiation Plant			41,52,500		41,52,500
20	Iron ore pellet Plant			30,00,000		30,00,000
21	Steam Generator			25 T / Hr		25 T / Hr

Following is proposed Phase- IV configuration:

Unit	Configuration	Annual Capacity
Coal Beneficiation Plant	1 MTPA (Throughput)	1,000,000 TPA
Iron Ore Beneficiation Plant	4.5 MTPA (Throughput)	4,152,500 TPA
Iron Ore Pelletisation Plant	3.0 MTPA 464 sq.m	3,000,000 TPA
Sinter Plant	1 x 30 sq.m	3,05,000 TPA (Gross) 2,90,000 TPA (Net)
Iron Making		
Sponge Iron (DRI) Plant	4 X 350 TPD	420,000 TPA
Blast Furnace	1 X 350 cu.m	261,800 TPA (gross) 251,300 TPA (net)
Steel Making		
SMS (IF route)	2 X 20 T IF /7.5 MW 1 X 40 T Lf/ 8 MVA	115,200 TPA (crude steel) 114,000 TPA (refined steel)
SMS (EAF Route)	1 X 65 T EAF/ 50	468,000 TPA (crude steel)

	T LF/ 12 MVA	463,300 TPA (refined steel)
Billet Caster	1X 2 STRAND	110,600 TPA
Bloom Caster	1 X 1 strand	444,800 TPA
Captive Power Plant		
WHR Boilers CFBC Boiler	4X 38 TPH 1 X 130 TPH	4X 38 TPH 1 X 130 TPH
Turbo Generator	1x 30 MW 1x 45 MW	1x 30 MW 1x 45 MW

The following will be the product mix with their production capacity:

S. No.	Product	Total Quantity (TPA)
1	Steel Billets	1,10,600
2	Steel Blooms	4,44,800
3	Sponge Iron	26,500
4	Pellets	17,27,000 (12,73,000 for in house consumption)
5	Coal washery rejects	1,30,000
6	Granulated BF slag	90,700

**1) Clarification/Additional information provided on the 5 points:**

Clarifications/additional information regarding 5 points have been received from the project proponent and gone through by the Sub-Committee. Additional information was found to be satisfactory.

They provided the monitoring data in respect of ambient and stack for the period of February 2013. The Committee observed that Monitoring was carried out by the SPCB and NABL approved Laboratory. The committee also observed that values of most of parameters were low. However, they have not carried out monitoring for work zone. Stack values appeared to be very low. The Committee suggested SPCB to provide their data. The Committee also had a review of the water consumption and effluent generation and its disposal. The water consumption for the existing and the proposed is well within the CREP recommendation. The effluent after treatment is fully utilized within the plant for horticulture. It was informed that water requirement is met from River Bramhani.

- 2) Documents of layout plan for the existing unit as well as proposed plan were discussed.
- 3) Subcommittee visited various section of the plant including raw materials storage yard, sinter plant, mini blast furnace, Blast furnace slag granulated area, COKE OVEN (not operational during visit), steel melting shop (both induction and arc furnace area), DRI (Sponge Iron) Plant, Power plant (AFBC boiler), coal washry, fly ash disposal area inside the plant, Metal recovery plant from SMS Slag and then occupational health centre. Round of one of the villages where CSR activities have been carried out.

**provided :**

- i. General housekeeping needs improvement.
- ii. It was observed that some of the roads were not cemented /concreted. However, on all the roads, water sprinkling exists as dust suppression arrangement.
- iii. The Committee observed that plantation is done in the number of places. However, the concept of greenbelt has not been fully implemented. Also the overall percentage of greenery appears to be inadequate.
- iv. In some of the process areas like in MBF at molten metal collection point, SMS Furnace, also in DRI at product discharge site, char loading point, adequate arrangement for control of fugitive emissions have not been provided.
- v. Although the ambient monitoring and stack monitoring is carried out by the third party but monitoring of work environment is not carried out.
- vi. The committee visited the occupational health centre, where full time doctor and nursing staff are provided. The Centre has got facility for annual medical check-up including X ray, spirometer and pathological laboratory. They are also keeping the record of all the employees ( about 1500 regular and 1500 contractual). They also have a mobile van, which goes to the villages and provides medical facilities to the villages.
- vii. All the char generated in the DRI plants and coal rejects from coal washry are being used in the AFBC boiler for power generation alongwith the raw coal. Also they have waste heat recovery boiler in the DRI plants.
- viii. The Committee observed that only some ash is sent for brick manufacturing but the major part is disposed off through low lying area in the plant. A portion of this was found to be covered with soil. Most of the slag is granulated and sold to cement plant. SMS slag after metal recovery is being used for road construction.
- ix. During visit to the village, it was observed that a community centre, a drinking water supply system, a park, school building have been constructed. A park has been constructed and also maintained by the Company.

**5) Recommendation :**

- i. All the roads in the existing plants as well as proposed expansion should be concreted or metalled. For this purpose they can use their own slag.
- ii. Adequate dust /fumes extraction system should be provided for the control of fugitive emissions.
- iii. They should provide inhouse arrangement for stack monitoring, work environment and ambient air quality monitoring and water quality monitoring of effluent as well as treated effluent. Environmental cell should be strengthen and should report directly to the COO. Work environment monitoring for carbon monoxide specially in MBF area and dust monitoring in all process and material handling area should be regularly carried out.
- iv. Thick greenbelt should be developed along the boundary wall with local species. Action plan for the 5 years should be submitted to the regional



- the plantation shall be reviewed by the Regional Office. For this a full time horticulturist should be inducted. For disposal of ash from power plant, SMS slag and rejects from proposed iron ore beneficiation. The Committee was informed that in addition to land already mentioned in the EIA report, they have acquired additional 32 acres (13 ha.) of land close by for ash disposal.
- vi. Doctor should attend some training course in occupational health.
  - vii. General housekeeping should be improved.
  - viii. Emissions monitoring as per standards stipulated by the MoEF should be conducted in Coke Oven.

The Committee discussed the site visit report as well as certified compliance report submitted by the Regional Office at Bhubaneswar and recommended the project proposal for environmental clearance subject to strict compliance of the following specific and general conditions.

- i. Measures shall be undertaken to mitigate particulate levels in the ambient air and a time bound action plan shall be submitted. On-line ambient air quality monitoring with proper O&M and continuous stack monitoring facilities for all the process stacks shall be provided and sufficient air pollution control devices viz. Electrostatic precipitator (ESP), gas cleaning plant, scrubber, bag filters etc. shall be provided to keep the emission levels below 50 mg/Nm<sup>3</sup> by installing energy efficient technology.
- ix. As proposed, Electrostatic precipitator (ESP) shall be provided to sinter/pellet plant, WHRB, DE plants; and dust catcher followed by venturi scrubbers to blast furnace to control PM levels within 50 mg/Nm<sup>3</sup>. Fume extraction system shall be provided to induction furnaces to control the emissions within the prescribed standards. Adequate dust /fumes extraction system should be provided for the control of fugitive emissions.
- ii. The National Ambient Air Quality Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16<sup>th</sup> 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 and regularly monitored. Guidelines/Code of Practice issued by the CPCB shall be followed. New standards for the sponge iron plant issued by the Ministry vide G.S.R. 414(E) dated 30<sup>th</sup> May, 2008 should be followed.
- iv. Emissions monitoring as per standards stipulated by the MoEF shall be conducted in Coke Oven.
- v. Fresh water requirement from River Bramhani shall not exceed 1045 m<sup>3</sup>/hr after expansion. Prior permission for the drawl of 1045 m<sup>3</sup>/hr water from the Competent Authority shall be obtained. All the effluent should be treated and used for ash handling, dust suppression and green belt development. No effluent shall be discharged and zero discharge shall be adopted. Sanitary sewage should be treated in septic tank followed by soak pit. Zero effluent discharge should be strictly followed and no wastewater should be discharged outside the premises.

make use of rain water harvested. If needed, capacity enhanced to meet the maximum water requirement.

Only balance water requirement shall be met from other sources.

- vii. Regular monitoring of influent and effluent surface, sub-surface and ground water (including chromite) should be ensured and treated wastewater should 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.
- viii. The water consumption shall not exceed as per the standard prescribed for the steel plants.
- ix. Vehicular pollution due to transportation of raw material and finished products shall be controlled. Proper arrangements shall also be made to control dust emissions during loading and unloading of the raw material and finished product.
- x. All internal roads shall be black topped. The roads shall be regularly cleaned with mechanical sweepers. A 3-tier avenue plantation using native species shall be developed along the roads.
- 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 should be submitted to the Ministry's Regional Office at Bhubaneswar, SPCB and CPCB.
- xii. Proper embankment shall be provided for the sludge disposal area
- xiii. Risk and Disaster Management Plan along with the mitigation measures shall be prepared and a copy submitted to the Ministry's Regional Office at Bhubaneswar, SPCB and CPCB within 3 months of issue of environment clearance letter.
  - x. As proposed, green belt shall be developed in 33 % of plant area as per the CPCB guidelines in consultation with the DFO. Thick greenbelt shall be developed along the boundary wall with local species. Action plan for the 5 years should be submitted to the regional office. Progress report of the plantation shall be reviewed by the Regional Office every 6 months. For this a full time horticulturist shall be inducted.
- xiv. All the recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for the Steel Plants should be implemented.
- xv. The company shall adopt well laid down corporate environment policy and identified and designate responsible officers at all levels of its hierarchy for ensuring adherence to the policy and compliance with environmental clearance, environmental laws and regulations.
- xvi. The Company shall provide inhouse arrangement for stack monitoring, work environment and ambient air quality monitoring and water quality monitoring of effluent as well as treated effluent. Environmental cell should be strengthen

ly to the COO. Work environment monitoring for  
y in MBF area and dust monitoring in all process and  
ould be regularly carried out. General housekeeping

should be improved.

- xvii. All the commitments made to the public during the Public Hearing / Public Consultation meeting held on 15<sup>th</sup> November, 2011 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 Bhubaneswar.
- xviii. 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 submitted to the Ministry's Regional Office at Bhubaneswar. Implementation of such program should be ensured accordingly in a time bound manner.
- xix. The company shall provide housing for 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.

- 7.45 Expansion of Development Drilling in the Oil Field at Ankleshwar Asset, Ankleshwar, Gujarat and expansion of Group Gathering Station (GGS/CTF/CPF) to 177 wells by **M/s Oil & Natural Gas Corporation Limited.- extension of the validity of TOR.**

MoEF vide letter no. J-11011/151/2010-IA . II dated 9<sup>th</sup> August 2010 has issued TOR for preparation of EIA / EMP report.

Now, project proponent has requested for extension TOR validity for one year. The delay occurred due to finalization of contract/tender as well as selection of QCI accredited Consultants.

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

**5<sup>th</sup> April, 2013**

#### **7.5.0 Consideration of the Projects:**

- 7.5.1 Expansion of Integrated Cement plant for production of clinker(1.32 MTPA to 3.06 MTPA),Cement(1.52 MTPA to 3.52 MTPA) & installation of 36 MW (2x18 MW) coal based captive power plant at Village Muktyala, Jaggayyapeta Mandal, District Krishna, Andhra Pradesh by **M/s The KCP Limited-regarding Environment Clearance**

The project authorities and their consultant M/s B.S. Envi-Tech (P) Limited, Hyderabad 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 14<sup>th</sup> meeting of the Expert Appraisal Committee (Industry- 1) held during 23-25<sup>th</sup> September, 2010 for preparation of

awarded on 20<sup>th</sup> October, 2010 for preparation of Plants ( $\geq 1.0$  MTPA) are listed at S.No. 3(b) under EIA Notification, 2006 and appraised by the Expert Appraisal Committee (Industry) of MoEF.

The ToR was awarded for the expansion of Integrated Cement plant for production of clinker(1.32 MTPA to 3.06 MTPA),Cement(1.52 MTPA to 3.52 MTPA), Limestone mining (2.00 MTPA to 4.50 MTPA) & installation of 36 MW (2x18 MW) coal based captive power plant at Village Muktyala, Jaggayyapeta Mandal District Krishna ,Andhra Pradesh. *However, the mining component of the project [Lime stone mining – 2.00 MTPA to 4.50 MTPA] will be appraised by the EAC – Mining.*

M/s KCP Limited proposed for expansion of Clinker (1.32 MTPA to 3.06 MTPA), Cement (1.52 MTPA to 3.52 MTPA), & coal based captive power plant of 2x18 MW capacity within their existing premises of 40 Ha. The additional area requirement for the proposed expansion is 7.65 ha and it is owned by the proponent. The proposed power plant will be located adjacent to the cement plant. No Rehabilitation and Resettlement is involved. 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. The Krishna and Paleru rivers are located at a distance of 2.1 km and 3.2 km from the project site respectively. The reserved forests located in the study area are . Budavada (1.1 km distance from the project site), Balusupadu (4.8 km distance from the project site), Jaggayyapeta Extension (3.5 km distance from the project site), Kuntimaddi(4.4 km distance from the project site), Ginjupalle (6.4 km distance from the project site), Chintapalem(8.0 km distance from the project site) and Venkatayapalem (4.6 km distance from the project site). Total cost of the project is Rs.460 crores. Rs.35 crores and Rs.8 crores is earmarked for capital cost and recurring cost per annum towards the environmental pollution control measures. Rs.24 crores is earmarked for the implementation of CSR activities for a period of five years.

The raw materials required are Lime stone . 4.5 MTPA, Laterite . 0.157 MTPA, Iron ore . 0.0176 MTPA, Gypsum . 0.176 MTPA and Coal for cement plant . 0.56 MTPA. The lime stone will be sourced from the captive mines by road. The coal for the cement plant will be sourced from M/s Singareni Collieries Company Limited and the imported coal will also be used. The coal requirement for the power plant is imported coal . 0.18 MTPA (or) indigenous coal . 0.43 MTPA (sourced from M/s Singareni Collieries Company Limited by rail). The Clinker will be manufactured by calcination of Limestone in the Kiln at about 1400°C. Total power requirement of the unit will be 36 MW, which will be met from the Captive power plant. The Committee asked the proponent to submit the coal linkage documents along with its analysis data to the Ministry.

The existing plant got environmental clearance from the Ministry vide letter no. J-11011/514/2008-IA.II (I) on 28.1.2010. Regional Office of MoEF at Bangalore had sent the certified compliance report for the existing unit. As per the report, the Committee noted that the proponent has not complied with the following conditions:

- a) WHRB is yet to be installed.
- b) Fugitive emission control is not satisfactory. Laterite storage shed is yet to be erected. Black topping of internal roads are yet to be complied.
- c) STP yet to be installed. Reportedly, it will be installed by July, 2013.
- d) Near packing plant and coal mill noise levels are close to permissible upper limits
- e) Risk analysis reports and Disaster Management Plan are yet to be prepared
- f) Of the stipulated four AAQ stations only two are installed so far.

improved  
displayed near the main gate  
Board suggestions are yet to be obtained for

- augmenting ground water
- j) The company must approach State Forest Department to comply with the condition regarding conservation of wildlife.
  - k) There is a pond on the company's own land and is in a Dilapidated State. Some water birds are sighted in this area. Project authorities may take up development of this pond as part of eco-development work.
- After detailed deliberations, the Committee asked the proponent to comply with the aforesaid conditions within a time frame of 6 months and report to this effect shall be submitted to the Ministry.

Ambient air quality monitoring has been carried out at 10 locations during September to November 2011 and the data submitted indicated: PM<sub>10</sub> (44-59 µg/m<sup>3</sup>), PM<sub>2.5</sub> (24-35 µg/m<sup>3</sup>), SO<sub>2</sub> (10.3-13.5 µg/m<sup>3</sup>) and NO<sub>x</sub> (11.5-14.8 µg/m<sup>3</sup>). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs (cement plant and lime stone mine) would be 22.18 µg/m<sup>3</sup>, 2.25 µg/m<sup>3</sup>, 14.16 µg/m<sup>3</sup> and 19.80 µg/m<sup>3</sup> with respect to PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub> and NO<sub>x</sub> respectively. To control air emissions, the pollution control devices such as bag house system for cleaning of raw mill/kiln flue gas, coal mill and cement mill will be provided. To control the fugitive dust generated from the material handling areas, bag filter system along with ventilation will be provided. All the flue gas outlets will be provided with the state of art air pollution control equipment to maintain the particulate emission level below 50 mg/Nm<sup>3</sup>.

The total water requirement is 3196 m<sup>3</sup>/day which will be met from Krishna river/ bore wells/mine pit and recycling the wastewater. A total wastewater generation is 506 m<sup>3</sup>/day. Out of 506m<sup>3</sup>/day, 206 m<sup>3</sup>/day wastewater will be recycled to cement plant for reuse in the process and remaining 246 m<sup>3</sup>/day will be used for gardening at plant, existing mine & colony. The domestic wastewater will be treated in the STP. No liquid effluent will be discharged outside the plant premises. There are no endangered, endemic or threatened species exist in the study area.

The dust generated in the air pollution control equipment in the cement plant will be recycled back to the process. The ash generated from the power plant (0.20 MTPA) will be used for cement production. Used oil will be sold to registered recyclers. The total green belt area after the expansion will be 16.42 ha.

Further, the Committee deliberated on the issues raised during the Public Hearing / Public Consultation meeting conducted by the Andhra Pradesh Pollution Control Board on 4.7.2012. The issues raised in the public hearing were regarding community welfare activities, employment of local people, adoption of latest pollution control equipments, legal course of action against the land issues and rain water harvesting measures etc. In response to this, the proponent informed that the management is committed to develop the area in and around the factory, company will use of best pollution control equipment available in the market and preference in employment will be given to the local people. The Committee noted that the copy of the public hearing proceedings is not available in the final EIA/EMP report and asked the proponent to submit the same. Further, from the representations received during the public hearing, the Committee noted that there are some court cases are going on regarding the existing project.



ons, the Committee sought following additional  
for reconsideration:

- i. Point wise compliance report to the aforementioned findings of the Regional Office, Bangalore
- ii. Detailed note of court cases pending against the project and its present status along with requisite supporting documents.
- iii. Revised layout plan showing the green belt development area
- iv. Coal linkage documents along with its analysis data
- v. Copy of the Public Hearing Proceedings
- vi. Letter from Forest department regarding the impact on Reserve Forests due to the proposed expansion
- vii. Rain water harvesting plan
- viii. MoU for hazardous waste utilization in kiln
- ix. Actual data from the continuous online monitoring system for the existing unit
- x. Time bound plan to reduce the drawl of water from Krishna river

7.5.2 Proposed 1.2 MTPA iron ore beneficiation plant, 1.2 MTPA pelletisation plant, 0.3 MTPA Non-recovery coke oven plant, 0.5 MTPA integrated steel plant along with 110 MW Captive power plant at village chutardanga, P.O. Mejia, District Bankura in West Bengal by **M/s SPS Ispat and Power Limited. - Regarding Environment Clearance**

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

7.5.3 Existing & Expansion of Induction Furnace (6T & 7T) Unit and Establishment of Rolling Mill unit within the existing premises at Sy. No. 295, 297, 298, 300, 308 & 309, Halkundi Village, Bellary Tq. & Dist. Karnataka by **M/s Tapal Steel Private Limited - Regarding Environment Clearance**

The project authorities and their consultant, M/s. Global Enviro Labs, Hyderabad, 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 32<sup>nd</sup> meeting of the Expert Appraisal Committee (Industry- 1) held during 27-28<sup>th</sup> January, 2012 for preparation of EIA/EMP report. The ToR was awarded on 14<sup>th</sup> February, 2012 for preparation of EIA/EMP report. The proposed expansion project is listed at S.No. 3(a) under category B of Schedule of EIA Notification, 2006 and should have been appraised by SEIAA/SEAC. Due to location of the project within 10 km of interstate boundary of Karnataka & Andhra Pradesh, as per the general condition of EIA Notification, 2006, the proposal has been appraised by the Expert Appraisal Committee (Industry) in the Ministry.

M/s Tapal Steel Pvt. Limited have proposed to expand its production of Ingots/ billets from 18,000 TPA to 43,000 TPA by installing another Induction Furnace of Capacity 7.0 TPH and installation of 75,000 TPA Rolling Mill Unit for producing TMT Bars within the existing premises at Sy. No. 295, 297, 298, 300, 308 & 309, village Halkundi, Tq. & District Bellary, Karnataka. Consent to Establish and Consent to Operate for the existing 6.0 T Induction Furnace has been obtained from the Karnataka State Pollution Control Board. Total land requirement is 14 acres. No Forest land is involved. No Defense Installation, Biosphere Reserve, National Park/Wild Life Sanctuary, Ecologically Sensitive Area exists within 10 km radius of the project site. The Bellary reserve forests and Mincheri RF are at a distance of 1.2

from the project site. There is no litigation / court case. Total cost of the project is 25.77 Crores. Rs. 1.7 Crores is allocated for environmental pollution control measures.

Following are the details of existing and proposed facilities:

S.No.	Facilities	Existing	Proposed Expansion	Total
1.	M.S. Ingots/Billets	18,000 TPA (6 TPH Induction Furnace)	25,000 TPA (7 TPH Induction Furnace)	43000 TPA (6 & 7TPH Induction Furnace)
2.	Rolling Mill	Nil	75,000 TPA TMT Bars (Installation of 12 TPH Reheating Furnace)	75,000 TPA TMT Bars (Installation of 12 TPH Reheating Furnace)

The raw materials required for the induction furnace are sponge iron (42462 TPA) and M.S.scrap (10613 TPA). The sponge iron will be sourced from sister concern Plant of M/s. Shree Venkateshwara Sponge. The raw materials required for the Rolling mill are M.S.Ingots (56250 TPA) and Iron blades (24990 TPA).

The Regional Office, Bellary, Karnataka State Pollution Control Board has sent their inspection report on compliance to the air and water consents. The Committee noted that the compliance to the air and water consents is satisfactory.

Additionally, the Project Authorities informed that the Ambient air quality monitoring has been carried out at 8 locations during March 2012 to May 2012 and the data submitted indicated: PM<sub>10</sub> (26.54-51 µg/m<sup>3</sup>), PM<sub>2.5</sub> (17-34.62 µg/m<sup>3</sup>), SO<sub>2</sub> (4.5-12.8 µg/m<sup>3</sup>) and NO<sub>x</sub> (5.7-14.7 µg/m<sup>3</sup>). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs would be 0.78 µg/m<sup>3</sup>, 1.55 µg/m<sup>3</sup> and 1.88 µg/m<sup>3</sup> with respect to PM<sub>10</sub>, SO<sub>2</sub> and NO<sub>x</sub> respectively. To control air emissions, the induction furnace will be equipped with multi cyclone separator with ventury scrubber. The reheating furnace will be equipped with heat recuperator and wet scrubber. Covered shed for coal and sponge iron will be provided. Stack of adequate height will be provided for wider dispersion of air emissions. Water sprinkling will be provided all around the stockpiles and raw material areas to suppress the fugitive dusts.

The total requirement after the proposed expansion is 75 m<sup>3</sup>/day which will be sourced from bore wells. There is no generation of wastewater from this Induction and Rolling Mill Process. Cooling water from scrubber is continuously re-circulated in the cooling water circuits, heat exchangers and discharged to the sump or holding tank through cooling towers where evaporation losses, drift losses and spillages are encountered. The domestic effluent generation will be 6.0 KL/day and this will be sent to septic tank followed by soak pit.

Solid wastes generated from proposed plant will be wet slag from Induction Furnace Unit, Mill Scale, Scraps and dust from Rolling Mill Unit. Slag will be used for filling low lying areas and road formations. Mill Scale and scrap will be sold to local vendors.

deliberated on the issues raised during the Public hearing conducted by the Karnataka State Pollution Control Board. The issues raised in the public hearing were regarding employment of local people, provision of drinking water plants, play ground for the school children etc which were addressed in the EIA/EMP report.

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

- i. The company shall install bag filters to control the particulate matter emissions below 50 mg/Nm<sup>3</sup>.
- ii. The National Ambient Air Quality Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16<sup>th</sup> November, 2009 should 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 30<sup>th</sup> May, 2008 and regularly monitored. Guidelines / Code of Practice issued by the CPCB should 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. Plan for rain water harvesting facilities shall be prepared and a copy shall be submitted to the Ministry's Regional Office at Bangalore, SPCB and CPCB within 3 months of issue of environment clearance letter.
- vi. The total water requirement shall not exceed 75 m<sup>3</sup>/day. No effluent shall be discharged outside the plant premises and zero discharge shall be adopted.
- vii. Risk and Disaster Management Plan along with the mitigation measures shall be prepared and a copy shall be submitted to the Ministry's Regional Office at Bangalore, SPCB and CPCB within 3 months of issue of environment clearance letter.
- viii. As proposed, green belt shall be developed in 33 % of the plant area. Selection of plant species shall be as per the CPCB guidelines in consultation with the DFO.
- ix. To educate the workers, all the work places where dust may cause a hazard shall be clearly indicated as a dust exposure area through the use of display signs which identifies the hazard and the associated health effects.
- x. All the commitments made to the public during the Public Hearing / Public Consultation meeting held on 30<sup>th</sup> November, 2012 shall be satisfactorily implemented and a separate budget for implementing the same should be allocated and information submitted to the Ministry's Regional Office at Bangalore.
- xi. 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 should be prepared and submitted

Office at Bhopal. Implementation of such program  
lingly in a time bound manner.

- xii. 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.

7.5.4 Setting up of Grain/Molasses Based (30 KLPD) Distillery Plant at Village Kima, Taluka Mungeli, District Bilaspur Chhattisgarh by **M/s Aegist Beverages private Limited. - Regarding Environment Clearance.**

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

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

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

7.5.6 Coal handling plant, coal based Gasification, Ammonia, urea, Nitric Acid, Ammonium Nitrate, Aluminium Fluoride at District Jagatsinghpur, Orissa by **M/s Paradeep Phosphate Ltd. - Regarding TORs.**

The Committee deferred the consideration of the expansion proposal as the technology proposed by the proponent is likely to cause the higher level of SO<sub>2</sub> emission. The Committee also noted that the existing plant of the M/s Paradeep Phosphate Limited had several environmental concerns including solid waste disposal problem.

After detailed deliberations, the Committee desired that a Sub-committee of EAC should visit the project site and submit a report to the REAC(I) before further considering the proposal for grant of Terms of Reference (ToR)

7.5.7 Greenfield Cement plant at Village Gamalapadu, District Guntur, Andhra Pradesh by **M/s My Home industries Ltd. - Regarding TORs.**

The Committee deferred the consideration of the proposal as the proposal was incomplete in several aspects.

After detailed deliberations, the Committee sought the following additional information for reconsideration.

- i. Alternate sites for consideration for the proposed green field cement plant
- ii. Revised layout plan shall be submitted without disturbing the natural drainages/nallahs inside the project site
- iii. Separate boundary wall shall be made between the limestone mining site and cement plant site.

Village Rajangar, District Kutch, Gujarat by **M/s ASR - Regarding TORs.**

The Committee deferred the consideration of the proposal on the ground that some of the State Pollution Control Board like Odisha are not permitting 100 TPD configuration of DRI kiln due to environmental concerns. The Committee asked the proponent to review the DRI plant configuration to 1x350 TPD instead of 4x100 TPD.

After detailed deliberations, the Committee sought the following information for reconsideration.

- i. Revised form I/pre feasibility project report for the DRI plant configuration of 1x350 TPD (or) 2x200 TPD

7.5.9 Exploratory drilling of 10 wells in NELP-IV, Block CY-ONN-2002/2 at District Nagapatnam, Tamil Nadu by **M/s ONGC Ltd - Regarding TORs.**

The project authorities gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken along with the draft Term of References for the preparation of EIA/EMP report. All the projects related to offshore and onshore Oil and Gas exploration, development and production are listed in para 1(b) of schedule of EIA Notification, 2006 covered under category A and appraised at central level.

M/s ONGC Limited have proposed for exploratory drilling of 10 appraisal wells in NELP-IV, Block CY-ONN-2002/2 in Cauvery Basin, Nagapattinam District, Tamil Nadu. The block was awarded to ONGC (60%) & BPCL (40%) with ONGC as operator under NELP-IV round in the year 2004. The total block area is 140 sq.km. The total exploration period consists of seven years from the effective date comprises of three exploration phases. The summary of the drilling in block CY-ONN-2002/2 is given below:

Phase I (31.8.2004-30.8.2004)	No well	
Phase II (31.8.2006 . 9.3.2010 including 190 days excusable delay)	1 well (MD-2)	EC obtained vide F.No.J-11011/13/2007-IA.II(I) dated 16.9.2008.
Phase III (10.3.2010-9.3.2012)	1 well MD-3 drilled in 2012. Discovery well	EC obtained vide F.No.J-11011/4/2011-IA.II(I) dated 12.3.2013.
	1 well (MD-4) to be drilled 2012.	
Appraisal well in case of Discovery	1 well to be firmed up as follow up of discovery	
10 additional appraisal wells planned	Locations to be firmed up. 2/3 <sup>rd</sup> locations are likely to be drilled in 2012-14	EC requested.

The anticipated cost of drilling each well to be Rs.20 crores. No forest land is involved. The project area does not fall under notified forest area, national park/sanctuary and CRZ. No court case /litigation is pending against the project. Adequate height of stack will be provided to DG set. A flaring pit of adequate burner will be provided. Blow out preventers will be provided for controlling blow outs. Offsite and Onsite Emergency Plans are available for the drill sites.



the Expert Appraisal Committee prescribed the EIA/EMP report:

1. A certified report of the status of compliance of the conditions stipulated in the environmental clearance and Consent to Operate for the ongoing / existing operation of the project by the Regional Office of the Ministry of Environment and Forests and SPCB.
2. Executive summary of the project
3. Project description, project objectives and project benefits.
4. Site details within 1 km of the each proposed well, any habitation, any other installation/activity, flora and fauna, approachability to site, other activities including agriculture/land, satellite imagery for 10 km area.
5. Details of forest land involved in the proposed project. A copy of forest clearance letter, if applicable.
6. Permission from the State Forest Department considering the impact of the proposed plant on the surrounding National Park/Wild life Sanctuary/Reserve Forest/Eco sensitive area, if any. Approval obtained from the State/Central Government under Forest (Conservation) Act, 1980 for the forestland should be submitted.
7. Distance from nearby critically/severely polluted area as per Notification dated 13<sup>th</sup> January, 2010, if applicable.
8. Does proposal involves rehabilitation and resettlement? If yes, details thereof.
9. A separate chapter on status of compliance of Environmental Conditions granted by State/Centre to be provided. As per circular dated 30<sup>th</sup> 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.
10. Detailed break up of project cost including recurring cost.
11. Environmental considerations adopted in the selection of the drilling locations for which environmental clearance is being sought. Any analysis suggested for minimizing the foot print giving details of drilling and development options considered.
12. Baseline data collection for air, water and soil for one season leaving the monsoon season in an area of 10 km radius with centre of Oil Field as its centre covering the area of all proposed drilling wells. It includes;
  - (i) Topography of the project site.
  - (ii) Ambient Air Quality monitoring at 8 locations for PM<sub>10</sub>, SO<sub>2</sub>, NO<sub>x</sub>, VOCs, Methane and non-methane HC.
  - (iii) Soil sample analysis (physical and chemical properties) at the areas located at 5 locations.
  - (iv) Ground and surface water quality in the vicinity of the proposed wells site.
  - (v) Climatology and Meteorology including wind speed, wind direction, temperature rainfall relative humidity etc.
  - (vi) Measurement of Noise levels ( day and night both) within 1 km radius of the proposed wells.
  - (vii)Vegetation and land use; Animal resources
13. Incremental GLC as a result of DG set operation.
14. Potential environmental impact envisages during various stages of project activities such as site activation, development, operation/ maintenance and decommissioning.
15. Actual source of water and ~~±~~Permission for the drawl of water from the Competent Authority. Detailed water balance, wastewater generation, recycling and its final discharge.
16. Noise control and measures to minimize disturbance due to light and visual intrusions in case coastally located areas.

20. Storage of chemicals and diesel at site.
21. Commitment for the use of WBM only
22. Mud make up and mud and cutting disposal . all options considered should be listed with selective option.
23. Hazardous material usage, generation, storage accounting and disposal.
24. Disposal of packaging waste from site.
25. Oil spill control and emergency plans in respect of recovery/ reclamation.
26. H<sub>2</sub>S emissions control.
27. Flare gas recovery system to be developed.
28. Produced oil handling and storage.
29. Details of scheme for oil collection system alongwith process flow diagram and its capacity.
30. Details of control of air, water and noise pollution in oil collection system.
31. Disposal of produced/formation water.
32. Whether any burn pits being utilized for well test operations.
33. Restoration and decommissioning plans which should include mud pits and wastage restoration also and documentation and monitoring of site recovery.
34. Measures to protect ground water and shallow aquifers from contamination along with its monitoring plan. Action Plan should also include storm water runoff during rainy season and measures to prevent runoff which may be contaminated with oil.
35. Risk assessment and mitigation measures along with disaster management plan and prevention of blow out.
36. Safety plan to be included for the Tea worker in the nearby areas.
37. Environmental management plan.
38. Documentary proof of membership of common disposal facilities, if any.
39. Details of environmental and safety related documentation within the company including documentation and proposed occupational health and safety Surveillance Safety Programme for all personnel at site. This should also include monitoring programme for the environment. Risk mitigation measures should cover for all phases of the site activity including for developing road access, drilling of wells, operation and maintenance, waste management, decommissioning etc.
40. Total capital and recurring cost for environmental control measures.
41. A copy of Corporate Environment Policy of the as per the Ministry's O.M. No. J-11013/41/2006-IA.II(I) dated 26<sup>th</sup> April, 2011 available on the Ministry's website.
42. Any litigation pending against the project and or any direction/order passed by any court of law against the project. If so details thereof.
43. A tabular chart with index for point-wise compliance of above TORs.

The following general points should be noted:

- i. All documents should be properly indexed, page numbered.
- ii. Period/date of data collection should be clearly indicated.
- iii. Authenticated English translation of all material provided in Regional languages.
- iv. The letter/application for EC should quote the MOEF file No. and also attach a copy of the letter.
- v. A copy of the letter received from the Ministry should be also attached as an annexure to the final EIA-EMP Report.

- report submitted to the Ministry must incorporate the  
the index of the final EIA-EMP report must indicate  
and page no. of the EIA-EMP Report where the above  
issues have been incorporated.
- vii. ~~Certificate~~ Certificate of Accreditation issued by the QCI to the environmental consultant should be included.

It was decided that TORs prescribed by the Expert Appraisal Committee (Industry) 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 Committee noted that public hearing for the entire block was conducted on 2.6.2008 as per EIA Notification, 2006. Therefore, the Committee exempted public hearing under 7 (ii) of the EIA Notification 2006. The final EIA/EMP report for obtaining environmental clearance shall be submitted to the Ministry.

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

#### 7.5.10 2x100TPD Sponge Iron Plant (Expansion Project) at Village Gourandi, District Bankura, West Bengal by **M/s Concast Bengal Industries Ltd. - Regarding TORs.**

The Committee deferred the consideration of the proposal on the ground that some of the State Pollution Control Board like Odisha are not permitting 100 TPD configuration of DRI kiln due to environmental concerns. The Committee asked the proponent to review the DRI plant configuration to 1x350 TPD (or) 1x200 TPD instead of 2x100 TPD.

After detailed deliberations, the Committee sought the following information for reconsideration.

- ii. Revised form I/pre feasibility project report for the DRI plant configuration of 1x350 TPD (or) 1x200 TPD

#### 7.5.11 Expansion of steel manufacturing unit at Village Budhewal, District Ludhiana, Punjab by **M/s Allied Recycling Ltd.- Regarding TORs.**

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

M/s Allied Recycling Limited have proposed to expand their Steel Manufacturing Unit at village Budhewal, Tehsil Kum Kalan, District Ludhiana, Punjab. The proposed expansion will be carried out in an area of 41 Kanal 3 Marlas. No Forest land is involved. No National Park, Wildlife Sanctuary is exists within 10 km radius of the project site. No court cases/litigation is pending against the project. The power requirement for the proposed expansion is 11.4 MW which will be met from

and 160 KVA is proposed as a standby power. The proposed expansion is 27m<sup>3</sup>/day which will be sourced. Materials required are MS/CI scrap, sponge/pig iron, ferro alloys, steel ingots and billets. Project cost is Rs. 31.5 crores (Existing: Rs.29.5 crores; Expansion: Rs.2 crores). Rs.48 lakhs and Rs.9.5 lakhs is earmarked for the capital cost and recurring cost per annum towards the environmental pollution control measures.

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

S.No.	Product details	Existing (MTPA)	Proposed Expansion (MTPA)	Total (MTPA)
1.	MS Ingots/Billets	80,000	70,000	1,50,000
2.	Wire rod	73,000	67,000	1,40,000

The Induction Furnace will be equipped with bag filters and cyclone separator. Stack of adequate height will be provided. Greenbelt development will be done all along the plant boundary. The domestic effluent generation is 9.6 m<sup>3</sup>/day which will be treated in the septic tank/soak pit treatment system. Used oil will be sent to registered recyclers.

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

1. Executive summary of the project
2. Photographs of the existing and proposed plant area.
3. Copies of iron ore and coal linkage documents
4. Compliance to the conditions stipulated in the Environmental Clearance / NOC granted by the SPCB.
5. A certified copy of the report of the status of compliance of the conditions stipulated in the environmental clearance and Consent to Operate for the ongoing / existing operation of the project by the Regional Office of the Ministry of Environment and Forests and SPCB.
6. Recent monitoring report from SPCB, which shall include data on AAQ, water quality, solid waste etc. shall be submitted.
7. Has the unit received any notice under the Section 5 of Environment (Protection) Act, 1986 or relevant Sections of Air and Water Acts? If so, compliance to the notice(s)
8. A line diagram/flow sheet for the process and EMP
9. The earlier questionnaire for industry sector should be submitted while submitting EIA/EMP.
10. A site location map on Indian map of 1:10,00,000 scale followed by 1:50,000/1:25,000 scale on an A3/A2 sheet with at least next 10 Kms of terrains i.e. circle of 10 kms and further 10 kms on A3/A2 sheets with proper longitude/latitude/heights with min. 100/200 m. contours should be included. 3-D view i.e. DEM (Digital Elevation Model) for the area in 10 km radius from the proposal site.
11. Present land use should be prepared based on satellite imagery. High-resolution satellite image data having 1m-5m spatial resolution like quickbird, Ikonos, IRS P-6 pan sharpened etc. for the 10Km radius area from proposed site. The same should be used for land used/land-cover mapping of the area.

- medium and large farmers from whom the land is being acquired, if any. If small farmers are involved, a detailed R&R plan. Forests / wildlife sanctuary / reserve forests within 10 km. radius should specifically be mentioned. A map showing land use / land cover, reserved forests, wildlife sanctuaries, national parks, tiger reserve etc. in 10 km of the project site.
14. Project site layout plan to scale using AutoCAD showing raw materials, fly ash and other storage plans, bore well or water storage, aquifers (within 1 km.) dumping, waste disposal, green areas, water bodies, rivers/drainage passing through the project site should be included.
  15. Details and classification of total land (identified and acquired) should be included.
  16. Proposal should be submitted to the Ministry for environment clearance only after acquiring total land. Necessary documents indicating acquisition of land should be included.
  17. Rehabilitation & Resettlement (R & R) should be as per policy of the State Govt. and a detailed action plan should be included.
  18. Permission and approval for the use of forest land and recommendations of the State Forest Department regarding impact of proposed expansion on the surrounding reserve forests, if applicable, should be included.
  19. A list of industries containing name and type in 10 km radius shall be incorporated.
  20. Residential colony should be located in upwind direction.
  21. List of raw material required and source along with mode of transportation should be included. All the trucks for raw material and finished product transportation must be environmentally Compliant.
  22. Studies for slurry, sludge material and solid waste generated should also be included, if the raw materials used has trace elements and a management plan.
  23. Manufacturing process details for all the process units should be included.
  24. Possibility of installation of WHRB will be explored and details included
  25. Mass balance for the raw material and products should be included.
  26. Energy balance data for all the components should be incorporated.
  27. Site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall should be collected.
  28. Sources of secondary emissions, its control and monitoring as per the CPCB guidelines should be included. A full chapter on fugitive emissions and control technologies should be provided.
  29. An action plan to control and monitor secondary fugitive emissions from all the sources as per the latest permissible limits issued by the Ministry vide G.S.R. 414(E) dated 30<sup>th</sup> May, 2008.
  30. Vehicular pollution control and its management plan should be submitted.
  31. A write up on use of high calorific hazardous wastes from all the sources in kiln and commitment regarding use of hazardous waste should be included.
  32. Ambient air quality at 8 locations within the study area of 10 km., aerial coverage from project site with one AAQMS in downwind direction should be carried out.
  33. The suspended particulate matter present in the ambient air must be analyzed for the presence of poly-aromatic hydrocarbons (PAH), i.e. Benzene soluble fraction. Chemical characterization of RSPM and incorporating of RSPM data.
  34. Determination of atmospheric inversion level at the project site and assessment of ground level concentration of pollutants from the stack emission based on site-specific meteorological features.



or all the plants for specific pollutants needs to be control of emissions within  $50 \text{ mg/Nm}^3$  should be

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

Gram Panchayat and Village Heads to augment the incorporation of water harvesting plan for the project is if water is bore well.

46. Permission for the drawl of water from the concerned authority and water balance data including quantity of effluent generated, recycled and reused and discharged is to be provided. Methods adopted/to be adopted for the water conservation should be included.
47. A note on the impact of drawl of water on the nearby River during lean season.
48. Surface water quality of nearby River (60 m upstream and downstream) and other surface drains at eight locations must be ascertained.
49. If the site is within 10 km radius of any major river, Flood Hazard Zonation Mapping is required at 1:5000 to 1:10,000 scale indicating the peak and lean river discharge as well as flood occurrence frequency.
50. A note on treatment of wastewater from different plants, recycle and reuse for different purposes should be included.
51. Provision of traps and treatment plants are to be made, if water is getting mixed with oil, grease and cleaning agents.
52. If the water is mixed with solid particulates, proposal for sediment pond before further transport should be included. The sediment pond capacity should be 100 times the transport capacity.
53. The pathways for pollution via seepages, evaporation, residual remains are to be studied for surface water (drainage, rivers, ponds, lakes), sub-surface and ground water with a monitoring and management plans.
54. Ground water monitoring minimum at 8 locations and near solid waste dump zone, Geological features and Geo-hydrological status of the study area are essential as also. Ecological status (Terrestrial and Aquatic) is vital.
55. Action plan for solid/hazardous waste generation, storage, utilization and disposal. A note on the treatment, storage and disposal of all type of solid waste should be included. End use of solid waste and its composition should be covered.
56. All stock piles will have to be on top of a stable liner to avoid leaching of materials to ground water.
57. Action plan for the green belt development plan in 33 % area should be included. The green belt should be around the project boundary and a scheme for greening of the travelling roads should also be incorporated. All rooftops/terraces should have some green cover.
58. Detailed description of the flora and fauna (terrestrial and aquatic) should be given with special reference to rare, endemic and endangered species.
59. Disaster Management Plan including risk assessment & damage control needs to be addressed and included.
60. Occupational health:
  - a. Details of existing Occupational & Safety Hazards. What are the exposure levels of above mentioned hazards and whether they are within Permissible Exposure level (PEL). If these are not within PEL, what measures the company has adopted to keep them within PEL so that health of the workers can be preserved,
  - b. Details of exposure specific health status evaluation of worker. If the workers health is being evaluated by pre designed format, chest x rays, Audiometry, Spirometry, Vision testing (Far & Near vision, colour vision and any other ocular defect) ECG, during pre placement and periodical examinations give the details of the same. Details regarding last month analyzed data of abovementioned parameters as per age, sex, duration of exposure and department wise.

- health status of workers with special reference to health and Safety.
- the implementation of OHS standards as per OSHAS/USEPA.
- e. Plan and fund allocation to ensure the occupational health & safety of all contract and sub-contract workers.
61. Corporate Environment Policy
- i. Does the company have a well laid down Environment Policy approved by its Board of Directors? If so, it may be detailed in the EIA report.
  - ii. Does the Environment Policy prescribe for standard operating process / procedures to bring into focus any infringement / deviation / violation of the environmental or forest norms / conditions? If so, it may be detailed in the EIA.
  - iii. What is the hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the environmental clearance conditions? Details of this system may be given.
  - iv. Does the company have system of reporting of non compliances / violations of environmental norms to the Board of Directors of the company and / or shareholders or stakeholders at large? This reporting mechanism should be detailed in the EIA report.
62. At least 5 % of the total cost of the project should be earmarked towards the Enterprise Social Commitment based on Public Hearing issues and item-wise details along with time bound action plan should be prepared and incorporated.
63. Total capital cost and recurring cost/annum for environmental pollution control measures.
64. Public hearing issues raised and commitments made by the project proponent on the same should be included separately in EIA/EMP Report in the form of tabular chart with financial budget for complying with the commitments made.
65. Any litigation pending against the project and / or any direction / order passed by any Court of Law against the project, if so, details thereof.

The following general points should be noted:

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

provided by other organization/Laboratories including approvals etc.

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

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

**7.5.12 Expansion of API bulk drug manufacturing unit from 5 TPM to 76 TPM (Existing: 5 TPM; Expansion: 71 TPM] at Plot No. A-1/2104, 3<sup>rd</sup> phase, Notified Industrial Area, GIDC Vapi, Distt. Valsad, Gujarat by M/s Alcon Bio Science Private Limited -regarding TORs.**

The project authorities along with their consultant [M/s Eco Chem Sales and Service, Surat] gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken along with the draft Terms of References for the preparation of EIA/EMP report. All Synthetic Organic Chemicals Industry located inside the notified industrial area/estate are listed at S.N. 5(f) under category Bq However, project site is located within 10 Km of interstate boundary (Daman & Silvassa) and treated as category Aproject due to applicability of general condition of the EIA notification, 2006 and appraised at Central level.

M/s Alcon Bio Science Private Limited have proposed to expand their API bulk drug manufacturing unit from 5 TPM to 76 TPM (Existing: 5 TPM; Expansion: 71 TPM] at Plot No. A-1/2104, 3<sup>rd</sup> phase, Notified Industrial Area, GIDC Vapi, Distt. Valsad, Gujarat. The existing plant got Consent to Operate from Gujarat Pollution Control Board on 19.1.2010. Total plot area is 2702 m<sup>2</sup> which is available within the existing premises. No additional land is required for the proposed expansion. No Forest land is involved. No National Park, Wildlife Sanctuary is exists within 10 km radius of the project site. No court cases/litigation is pending against the project. The power requirement for the proposed expansion is 400 HP which will be met from M/s DGVGL. Also, 3 Nos of D.G set of 250 KVA is proposed as a standby power. The water requirement after the proposed expansion is 46.24 m<sup>3</sup>/day which will be sourced from river Damanganga through GIDC Vapi. Total project cost after the expansion is Rs. 1776 lakhs [Existing: Rs. 570.25 lakhs; Expansion: Rs. 1205.75 lakhs]. Rs. 185 lakhs is earmarked towards the environmental protection measures.

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

S.No	Product	Quantity TPM			Remark
		Existing	Proposed	Total	
1	Phenytoin Sodium	5.0	20.0	25.0	Expansion of existing product
2.1	Ofloxacin or	0	40.0	40.0	Either of the product
2.2	Lidocaine Base or Lidocaine				

		Quantity TPM			Remark
		Existing	Proposed	Total	
3.1	Melatonin	0	1.0	1.0	Either of the product
3.2	Trimetazidine Di Hydrochloride				
3.3	Tobramycine				
4.1	Meloxicam	0	10.0	10.0	Either of the product
4.2	Alendronate Sodium Trihydrate				
4.3	Oxcarbazine				
	<b>Total</b>	<b>5.0</b>	<b>71.0</b>	<b>76.0</b>	

Stack of adequate height will be provided for wider dispersion of air emissions. Ammonia and HCL will be treated in two stage scrubber system. Total industrial effluent generation shall 20 m<sup>3</sup>/day. Out of which 12.5 m<sup>3</sup>/day of concentrated effluent shall be collected separately, neutralized, filtered & evaporated in proposed multi effect evaporation system. About 10.9 m<sup>3</sup>/day of condensate from evaporation system & Agitated Thin Film Dryer (ATFD) shall be recycled in the process. Average 7.5 m<sup>3</sup>/day of normal effluent from boiler blow down, cooling tower, floor washing & scrubber shall be treated in primary followed by tertiary effluent treatment plant & discharge into underground effluent drainage line to CETP Vapi for further treatment. 3.0 m<sup>3</sup>/day of domestic effluent shall be passed through septic tank/soak pit of adequate capacity. ETP waste and sludge from wet scrubber will be disposed off into TSDF at Vapi. Used oil will be sold to registered recyclers.

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

1. Executive summary of the project
2. Justification of the project
3. Photographs of the existing and proposed plant area.
4. Compliance to the conditions stipulated in the Environmental Clearance / NOC granted by the SPCB.
5. A certified copy of the report of the status of compliance of the conditions stipulated in the environmental clearance and Consent to Operate for the ongoing / existing operation of the project by the Regional Office of the Ministry of Environment and Forests and SPCB.
6. Recent monitoring report from SPCB, which shall include data on AAQ, water quality, solid waste etc. shall be submitted.
7. Has the unit received any notice under the Section 5 of Environment (Protection) Act, 1986 or relevant Sections of Air and Water Acts? If so, compliance to the notice(s)
8. The earlier questionnaire for industry sector should be submitted while submitting EIA/EMP.
9. A copy of Gazette Notification issued by the State Government indicating location of the project in notified industrial area should be included necessarily.
10. Promoters and their back ground.
11. Regulatory framework
12. A map indicating location of the project and distance from severely polluted area



- out.
- ing power sources.
- with total capital cost and recurring cost/annum for environmental pollution control measures.
16. Project site location along with site map of 10 km area and site details providing various industries, surface water bodies, forests etc.
  17. 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.
  18. Location of National Park/Wild life sanctuary/Reserve Forest within 10 km radius of the project.
  19. Permission, if any, from the State Forest Department
  20. Details of the total land and break-up of the land use for green belt and other uses.
  21. List of products along with the production capacities.
  22. Detailed list of raw materials required and source, mode of storage and transportation.
  23. Manufacturing process details along with the chemical reactions and process flow chart.
  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 18<sup>th</sup> November, 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 PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub>, NO<sub>x</sub> 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. Air pollution control measures viz. Multi-cyclone and bag filter etc. Shall be proposed for the effective control of gaseous emissions within permissible limits.
  28. Details of VOC monitoring system in the working zone environment, if any.
  29. Name of all the solvents to be used in the process and details of solvent recovery system.
  30. Design details of ETP, incinerator, boiler, scrubbers/bag filters etc.
  31. Details of water and air pollution and its mitigation plan.
  32. Action plan to control ambient air quality as per NAAQES Standards notified by the Ministry on 18<sup>th</sup> November, 2009.
  33. An action plan to control and monitor secondary fugitive emissions from all the sources.
  34. Determination of atmospheric inversion level at the project site and assessment of ground level concentration of pollutants from the stack emission based on site-specific meteorological features. Air quality modelling for proposed plant.
  35. Permission for the drawl of ground water from CGWA. Water balance chart including quantity of effluent generated recycled and reused and discharged.
  36. Action plan for Zero discharge of effluent shall be included.
  37. Treatment of phenol in the effluent, if any.
  38. 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).
  39. 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.
  40. Explore the possibility to use fuel other than wood.

- during storage and transportation of hazardous mentioned and incorporated.
- the disposal of solid/hazardous waste in TSDF.
43. List of hazardous chemicals (as per MSIHC rule) with toxicity levels.
  44. A write up on Safe Practice+followed for hazardous chemicals handling, storage, transportation and unloading to be submitted.
  45. A write up on Treatment of workers affected by accidental spillage of hazardous chemicals.
  46. Locating the plant in open area instead of covered to be reviewed in view of safety consideration.
  47. An action plan to develop green belt in 33 % area
  48. 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.
  49. 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.
  50. Details of occupational health surveillance programme.
  51. Socio-economic development activities shall be in place.
  52. 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.
  53. EMP shall include the concept of waste-minimization, recycle / reuse / recover techniques, Energy conservation, and natural resource conservation.
  54. Corporate Environmental Responsibility
    - a. Does the company has a well laid down Environment Policy approved by its Board of Directors? If so, it may be detailed in the EIA report.
    - b. Does the Environmental Policy prescribe for standard operating process/procedures to bring into focus any infringement / deviation / violation of the environmental or forest norms / conditions? If so, it may be detailed in the EIA report.
    - c. What is the hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the EC conditions. Details of this system may be given.
    - d. Does the company has a system of reporting of non compliance / violations of environmental norms to the Board of Directors of the company and / or shareholders or stakeholders at large? This reporting mechanism should be detailed in the EIA report.
  55. At least 5 % of the total cost of the project should be earmarked towards the Enterprise Social Commitment and item-wise details along with time bound action plan should be prepared and incorporated.
  56. Total capital cost and recurring cost/annum for environmental pollution control measures.
  57. Any litigation pending against the project and / or any direction / order passed by any Court of Law against the project, if so, details thereof.

ould be noted:

be properly indexed, page numbered.

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

It was decided that TORs prescribed by the Expert Appraisal Committee (Industry) should be considered for preparation of EIA / EMP report for the above mentioned project in addition to all the relevant information as per the Generic Structure of EIA given in Appendix III and IIIA in the EIA Notification, 2006. Where the documents provided are in a language other than English, an English translation should be provided. The final EIA report shall be submitted to the Ministry for obtaining environmental clearance. Public hearing is not required as the unit is located in the notified industrial area.

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

#### 7.5.13 Bulk drug manufacturing unit at Survey No. 904, Jangampally Village, Bhiknoor Mandal, Nizamabad District, Andhra Pradesh by **M/s Basis Laboratories Regarding TORs.**

The project authorities along with their consultant [M/s Right Source Industrial Solutions 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 Synthetic Organic Chemicals Industry located outside the notified industrial area/estate are listed at S.N. 5(f) under category A and appraised at Central level.

M/s Basis Laboratories have proposed to set up a bulk drug manufacturing unit at Survey No. 904, Jangampally Village, Bhiknoor Mandal, Nizamabad District, Andhra Pradesh. Total plot area is 20948 m<sup>2</sup>. No Forest land is involved. No National Park, Wildlife Sanctuary is exists within 10 km radius of the project site. No court cases/litigation is pending against the project. The power requirement for the proposed expansion is 320 KVA which will be met from M/s State Electricity Board. Two D.G set of 380 KVA each is proposed as a standby power. The water

ch will be sourced from ground water. Project cost is

Following are the details of the proposed product details.

S.No	Name of the product	Application	Production/ Month in KG.
1.	Fluconazole	Anti Fungal	2000.00
2.	Lamivudine	Anti- Hepatitis Agent	3000.00
3.	Losartan Potassium	Antihypertensive	2000.00
4.	Metformin Hydrochloride	Anti diabetic	15000.00
5.	Phenylpherine HCl	Anti tussive - Decongestant	1500.00
6.	Rabeprazole Sodium	Proton pump inhibitor	1000.00
7.	Telmisartan	Antihypertensive	2000.00
8.	Tramadol Hydrochloride	Analgesic	2000.00
9.	Zidovudine	Antiretroviral	2000.00
10.	Cetirizine Dihydrochloride	Anti Histaminic	1500.00
11.	Carbidopa	Anti parkinsonian	1000.00
<b>TOTAL</b>			<b>33000.00</b>

Stack of adequate height will be provided. The wastewater generation is 47.37 KLD. This effluent will be treated in the ETP. Used oil will be send to registered recyclers. Organic and inorganic waste, MEE salts, ETP sludge will be sent to TSDF.

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

1. Executive summary of the project
2. Justification of the project
3. Photographs of the proposed plant area.
4. The earlier questionnaire for industry sector should be submitted while submitting EIA/EMP.
5. Promoters and their back ground.
6. Regulatory framework
7. A map indicating location of the project and distance from severely polluted area
8. Project location and plant layout.
9. Infrastructure facilities including power sources.
10. Total cost of the project along with total capital cost and recurring cost/annum for environmental pollution control measures.
11. Project site location along with site map of 10 km area and site details providing various industries, surface water bodies, forests etc.
12. 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.
13. Location of National Park/Wild life sanctuary/Reserve Forest within 10 km radius of the project.
14. Permission, if any, from the State Forest Department

and break-up of the land use for green belt and

with the production capacities.

17. Detailed list of raw materials required and source, mode of storage and transportation.
18. Manufacturing process details along with the chemical reactions and process flow chart.
19. Site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall is necessary.
20. Ambient air quality monitoring at 8 locations within the study area of 5 km. aerial coverage from project site as per NAAQES notified on 18<sup>th</sup> November, 2009. Location of one AAQMS in downwind direction.
21. 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<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub>, NO<sub>x</sub> including VOCs shall be collected. The monitoring stations shall take into account the predominant wind direction, population zone and sensitive receptors including reserved forests. Data for water and noise monitoring shall also be included.
22. Air pollution control measures viz. Multi-cyclone and bag filter etc. Shall be proposed for the effective control of gaseous emissions within permissible limits.
23. Details of VOC monitoring system in the working zone environment, if any.
24. Name of all the solvents to be used in the process and details of solvent recovery system.
25. Design details of ETP, incinerator, boiler, scrubbers/bag filters etc.
26. Details of water and air pollution and its mitigation plan.
27. Action plan to control ambient air quality as per NAAQES Standards notified by the Ministry on 18<sup>th</sup> November, 2009.
28. An action plan to control and monitor secondary fugitive emissions from all the sources.
29. 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.
30. Permission for the drawl of ground water from CGWA. Water balance chart including quantity of effluent generated recycled and reused and discharged.
31. Action plan for Zero discharge of effluent shall be included.
32. Treatment of phenol in the effluent, if any.
33. 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).
34. 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.
35. Explore the possibility to use fuel other than wood.
36. Precautions to be taken during storage and transportation of hazardous chemicals shall be clearly mentioned and incorporated.
37. Authorization/Membership for the disposal of solid/hazardous waste in TSDF.



- chemicals (as per MSIHC rule) with toxicity levels and
- practice+followed for hazardous chemicals handling, storage, transportation and unloading to be submitted.
40. A write up on %Treatment of workers affected by accidental spillage of hazardous chemicals.
  41. Locating the plant in open area instead of covered to be reviewed in view of safety consideration.
  42. An action plan to develop green belt in 33 % area
  43. Action plan for rainwater harvesting measures at plant site shall be included to harvest rainwater from the roof tops and storm water drains to recharge the ground water.
  44. Details of occupational health programme.
    - i. To which chemicals, workers are exposed directly or indirectly.
    - ii. Whether these chemicals are within Threshold Limit Values (TLV)/ Permissible Exposure Levels as per ACGIH recommendation.
    - iii. What measures company 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.
  45. Details of occupational health surveillance programme.
  46. Socio-economic development activities shall be in place.
  47. Detailed Environment management Plan (EMP) with specific reference to details of air pollution control system, water & wastewater management, monitoring frequency, responsibility and time bound implementation plan for mitigation measure shall be provided.
  48. EMP shall include the concept of waste-minimization, recycle / reuse / recover techniques, Energy conservation, and natural resource conservation.
  49. Corporate Environmental Responsibility
    - a. Does the company has a well laid down Environment Policy approved by its Board of Directors? If so, it may be detailed in the EIA report.
    - b. Does the Environmental Policy prescribe for standard operating process/procedures to bring into focus any infringement / deviation / violation of the environmental or forest norms / conditions? If so, it may be detailed in the EIA report.
    - c. What is the hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the EC conditions. Details of this system may be given.
    - d. Does the company has a system of reporting of non compliance / violations of environmental norms to the Board of Directors of the company and / or shareholders or stakeholders at large? This reporting mechanism should be detailed in the EIA report.
  50. 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.

and recurring cost/annum for environmental pollution

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

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

The following general points should be noted:

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

It was decided that TORs prescribed by the Reconstituted Expert Appraisal Committee (Industry) should be considered for preparation of EIA / EMP report for the above mentioned project in addition to all the relevant information as per the Generic Structure of EIA given in Appendix III and IIIA in the EIA Notification, 2006. The draft EIA/EMP report shall be submitted to the Andhra Pradesh Pollution Control Board for public hearing. The issues emerged and response to the issues shall be incorporated in the EIA report. The final EIA report shall be submitted to the Ministry for obtaining environmental clearance.

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

**7.5.14 Bulk drug manufacturing unit at Plot Nos.130 & 131, Raichur Growth Centre Industrial Area, Chiksugur Village, Raichur District, Karnataka by M/s Shruti Durgs Pvt. Ltd - Regarding TORs.**

The project authorities along with their consultant [M/s Right Source Industrial Solutions 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 Synthetic Organic Chemicals Industry located inside the notified industrial

under category Bq However, project site is located in Raichur (Andhra Pradesh & Karnataka) and treated as per the capability of general condition of the EIA notification, 2006 and appraised at Central level.

M/s Shruti Drugs Private Limited have proposed to set up a bulk drug manufacturing unit at Plot Nos.130 & 131, Raichur Growth Centre Industrial Area, Chiksugur Village, Raichur District, Karnataka. Total plot area is 8086 m<sup>2</sup>. No Forest land is involved. No National Park, Wildlife Sanctuary is exists within 10 km radius of the project site. No court cases/litigation is pending against the project. The power requirement for the proposed expansion is 380 HP which will be met from M/s State Electricity Board. 3.0 TPH coal fired boiler and D.G set of 380 KVA is also proposed. The water requirement is 76.40 m<sup>3</sup>/day which will be sourced from KIADB supply. Project cost is Rs. 10 crores.

Following are the details of the proposed product details.

S.No	Name of the product	Application	Production/ Month in KG.
1.	Pregabalin	Neuropathic Pain Agent	2000.00
2.	Rosuvastatin Calcium	Anti lipemic	2000.00
3.	Bipiridine Hydrochloride	Anti Parkinson	1000.00
4.	Donepezil Hydrochloride	Anti-Alzheimer's agent	2000.00
5.	Domperidone	Anti emetic	1000.00
6.	Carisoprodole	Skeletal Muscle Relaxant	3000.00
7.	Topiramate	Anti convulsant	2000.00
8.	Valsartan	Anti convulsant	2000.00
9.	Moxifloxacin HCl	Anti-infective	1000.00
10.	Levitiracetam	Anti convulsant	2000.00
11.	Metformin Hydrochloride	Anti diabetic	15000.00
<b>TOTAL</b>			<b>33000.00</b>

Stack of adequate height will be provided. The wastewater generation is 39.17 KLD. This effluent will be treated in the ETP. Used oil will be send to registered recyclers. Organic and inorganic waste, MEE salts, ETP sludge will be sent to TSDF. Coal ash will be sold to brick manufacturers.

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

1. Executive summary of the project
2. Justification of the project
3. Photographs of the proposed plant area.
4. The earlier questionnaire for industry sector should be submitted while submitting EIA/EMP.
5. A copy of Gazette Notification issued by the State Government indicating location of the project in notified industrial area should be included necessarily.
6. Promoters and their back ground.
7. Regulatory framework
8. A map indicating location of the project and distance from severely polluted area
9. Project location and plant layout.
10. Infrastructure facilities including power sources.

- g with total capital cost and recurring cost/annum for  
ol measures.
- h site map of 10 km area and site details providing  
various industries, surface water bodies, forests etc.
13. 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.
  14. Location of National Park/Wild life sanctuary/Reserve Forest within 10 km radius of the project.
  15. Permission, if any, from the State Forest Department
  16. Details of the total land and break-up of the land use for green belt and other uses.
  17. List of products along with the production capacities.
  18. Detailed list of raw materials required and source, mode of storage and transportation.
  19. Manufacturing process details along with the chemical reactions and process flow chart.
  20. Site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall is necessary.
  21. Ambient air quality monitoring at 8 locations within the study area of 5 km. aerial coverage from project site as per NAAQES notified on 18<sup>th</sup> November, 2009. Location of one AAQMS in downwind direction.
  22. 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<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub>, NO<sub>x</sub> 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.
  23. Air pollution control measures viz. Multi-cyclone and bag filter etc. Shall be proposed for the effective control of gaseous emissions within permissible limits.
  24. Details of VOC monitoring system in the working zone environment, if any.
  25. Name of all the solvents to be used in the process and details of solvent recovery system.
  26. Design details of ETP, incinerator, boiler, scrubbers/bag filters etc.
  27. Details of water and air pollution and its mitigation plan.
  28. Action plan to control ambient air quality as per NAAQES Standards notified by the Ministry on 18<sup>th</sup> November, 2009.
  29. An action plan 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. Permission for the drawl of ground water from CGWA. Water balance chart including quantity of effluent generated recycled and reused and discharged.
  32. Action plan for Zero discharge of effluent shall be included.
  33. Treatment of phenol in the effluent, if any.
  34. 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).
  35. The details of solid and hazardous wastes generation, storage, utilization and disposal particularly related to the hazardous waste calorific value of hazardous waste and detailed characteristic of the hazardous waste. Action plan for the disposal of fly ash generated from boiler shall be included.
  36. Explore the possibility to use fuel other than wood.
  37. Precautions to be taken during storage and transportation of hazardous chemicals shall be clearly mentioned and incorporated.

the disposal of solid/hazardous waste in TSDF.  
(as per MSIHC rule) with toxicity levels.  
followed for hazardous chemicals handling, storage,

- transportation and unloading to be submitted.
41. A write up on the treatment of workers affected by accidental spillage of hazardous chemicals.
  42. Locating the plant in open area instead of covered to be reviewed in view of safety consideration.
  43. An action plan to develop green belt in 33 % area
  44. Action plan for rainwater harvesting measures at plant site shall be included to harvest rainwater from the roof tops and storm water drains to recharge the ground water.
  45. Details of occupational health programme.
    - i. To which chemicals, workers are exposed directly or indirectly.
    - ii. Whether these chemicals are within Threshold Limit Values (TLV)/ Permissible Exposure Levels as per ACGIH recommendation.
    - iii. What measures company 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.
  46. Details of occupational health surveillance programme.
  47. Socio-economic development activities shall be in place.
  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. Corporate Environmental Responsibility
    - a. Does the company has a well laid down Environment Policy approved by its Board of Directors? If so, it may be detailed in the EIA report.
    - b. Does the Environmental Policy prescribe for standard operating process/procedures to bring into focus any infringement / deviation / violation of the environmental or forest norms / conditions? If so, it may be detailed in the EIA report.
    - c. What is the hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the EC conditions. Details of this system may be given.
    - d. Does the company has a system of reporting of non compliance / violations of environmental norms to the Board of Directors of the company and / or shareholders or stakeholders at large? This reporting mechanism should be detailed in the EIA report.
  51. At least 5 % of the total cost of the project should be earmarked towards the Enterprise Social Commitment and item-wise details along with time bound action plan should be prepared and incorporated.
  52. Total capital cost and recurring cost/annum for environmental pollution control measures.
  53. Any litigation pending against the project and / or any direction / order passed by any Court of Law against the project, if so, details thereof.

The following general points should be noted:



be properly indexed, page numbered.  
Collection should be clearly indicated.  
translation of all material in Regional languages

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

It was decided that TORs prescribed by the Expert Appraisal Committee (Industry) should be considered for preparation of EIA / EMP report for the above mentioned project in addition to all the relevant information as per the Generic Structure of EIA given in Appendix III and IIIA in the EIA Notification, 2006. Where the documents provided are in a language other than English, an English translation should be provided. The final EIA report shall be submitted to the Ministry for obtaining environmental clearance. Public hearing is not required as the unit is located in the notified industrial area.

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

**7.5.15 Iron Ore Beneficiation/Pelletization plant at Village Khapri and Bakal, District Rajnandgaon, Chhattisgarh by M/s Prabhnil Steel India Pvt. Ltd. - Regarding TORs.**

The project authorities gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken along with the draft Terms of References for the preparation of EIA/EMP report. The proposed project activity is covered under Category (A) and listed at S.N.3(a) of the Schedule of the EIA notification 2006 and have to be appraised at the Central level.

M/s Prabhnil Steel India Private Limited have proposed to set up a 1.2 MTPA Iron Ore Beneficiation Plant and 0.6 MTPA Iron-ore pelletisation plant at 493/1, 493/2, 493/3, 493/4, 506/1, 506/2, 507/1, 507/2, 519/1, 519/2, 519/3, 500/10, 500/11, 500/12, 500/14, 500/15, 500/16, 500/17, 500/18, 500/23, 523/1, 523 / 2, 683/1, 683/2, 683/3, 685/1, 685/2, 686/1, 686/2, 686/3, 687/1, 687/2, 688/1, 688/2, 690, 693/2 etc at villages Khapri and Bakal, Tehsil Dongargaon, District Rajnandgaon, Chhattisgarh. The land requirement for the proposed project is 36 acres. The land is in possession of the project proponent. No Forest land is involved. No National Park, Wildlife Sanctuary is exists within 10 km radius of the project site. No court cases/litigation is pending against the project. The peteshri nala is located at a distance of 2 km from the project site. Project cost is Rs. 120 Crores. The raw materials required are iron ore fines (12,00,000 TPA), iron ore concentrate (6,30,000

stone (10000 TPA), coal (4500 TPA) and furnace requirement will be met from PGCIL/CSPPCL grids. The which will be drawn from ground water sources.

The pellet plant will be equipped with Electro Static Precipitator. The PM emission at the outlet of the stack will be 50 mg/Nm<sup>3</sup>. Dust extraction system with bag filters will be provided to control emissions at transfer points and other dust emanating areas. The crusher/pulverizers will be provided with enclosures, fitted with bag filters and finally emitted through a stack of adequate height, conforming particulate emission standard of 50 mg/Nm<sup>3</sup>. Water sprinkling will be done by using fine atomizer nozzles arrangement will be provided on the I/O heaps and on land around the crushers / pulverizers. All internal roads will be asphalted. No wastewater will be discharged from the proposed unit operation. Slurry generated from beneficiation plant will be fed to a specially designed press filter, which would separate the water from slurry. All the water collected from this filter will be re-circulated to plant for reuse. Closed circuit cooling system will be adopted in Pelletization plant. The tailings generation is 0.48 MTPA. The tailings will be given to ceramic industries/cement plants/other mineral based industries.

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

1. Executive summary of the project
2. Photographs of the proposed plant area.
3. Copies of iron ore/coal linkage documents
4. A line diagram/flow sheet for the process and EMP
5. The earlier questionnaire for industry sector should be submitted while submitting EIA/EMP.
6. A site location map on Indian map of 1:10, 00,000 scale followed by 1:50,000/1:25,000 scale on an A3/A2 sheet with at least next 10 Kms of terrains i.e. circle of 10 kms and further 10 kms on A3/A2 sheets with proper longitude/latitude/heights with min. 100/200 m. contours should be included. 3-D view i.e. DEM (Digital Elevation Model) for the area in 10 km radius from the proposal site.
7. Present land use should be prepared based on satellite imagery. High-resolution satellite image data having 1m-5m spatial resolution like quickbird, Ikonos, IRS P-6 pan sharpened etc. for the 10Km radius area from proposed site. The same should be used for land used/land-cover mapping of the area.
8. Break up of small, medium and large farmers from whom the land is being acquired. If small farmers are involved, a detailed R&R plan.
9. Location of national parks / wildlife sanctuary / reserve forests within 10 km. radius should specifically be mentioned. A map showing land use / land cover, reserved forests, wildlife sanctuaries, national parks, tiger reserve etc. in 10 km of the project site.
10. Project site layout plan to scale using AutoCAD showing raw materials, fly ash and other storage plans, bore well or water storage, aquifers (within 1 km.) dumping, waste disposal, green areas, water bodies, rivers/drainage passing through the project site should be included.
11. Details and classification of total land (identified and acquired) should be included.
12. Proposal should be submitted to the Ministry for environment clearance only after acquiring total land. Necessary documents indicating acquisition of land should be included.

- Settlement (R & R) should be as per policy of the State action plan should be included.
- Approval for the use of forest land and recommendations of the State Forest Department regarding impact of proposed expansion on the surrounding reserve forests, if applicable, should be included.
15. A list of industries containing name and type in 10 km radius shall be incorporated.
  16. Residential colony should be located in upwind direction.
  17. List of raw material required and source along with mode of transportation should be included. All the trucks for raw material and finished product transportation must be environmentally Compliant.
  18. Studies for slurry, sludge material and solid waste generated should also be included, if the raw materials used has trace elements and a management plan. Use of tailings by tile making industries etc may be explored and plan submitted.
  19. Manufacturing process details for all the process units should be included.
  20. Possibility of installation of WHRB will be explored and details included
  21. Mass balance for the raw material and products should be included.
  22. Energy balance data for all the components should be incorporated.
  23. Site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall should be collected.
  24. Sources of secondary emissions, its control and monitoring as per the CPCB guidelines should be included. A full chapter on fugitive emissions and control technologies should be provided.
  25. 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 30<sup>th</sup> May, 2008.
  26. Vehicular pollution control and its management plan should be submitted.
  27. A write up on use of high calorific hazardous wastes from all the sources in kiln and commitment regarding use of hazardous waste should be included.
  28. Ambient air quality at 8 locations within the study area of 10 km., aerial coverage from project site with one AAQMS in downwind direction should be carried out.
  29. The suspended particulate matter present in the ambient air must be analyzed for the presence of poly-aromatic hydrocarbons (PAH), i.e. Benzene soluble fraction. Chemical characterization of RSPM and incorporating of RSPM data.
  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.
  31. Air quality modeling for all the plants proposed including mine for specific pollutants needs to be done. APCS for the control of emissions within 50 mg/Nm<sup>3</sup> should be included. Cumulative impacts of mines and pellet plant on the ambient air quality shall be assessed.
  32. Action plan to follow National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16<sup>th</sup> November, 2009 should be included.
  33. Ambient air quality monitoring along with cumulative impact should be included for the day (24 hrs) for maximum GLC along with following :
    - i. Emissions (g/second) with and without the air pollution control measures
    - ii. Meteorological inputs (wind speed, m/s), wind direction, ambient air temperature, cloud cover, relative humidity & mixing height using SODAR on hourly basis
    - iii. Model input options for terrain, plume rise, deposition etc.

put and output on hourly and daily average basis  
averaged concentration (MGLC scenario) with  
at every 500 m interval covering the exact location

of GLC.

- vi. Details of air pollution control methods used with percentage efficiency that are used for emission rate estimation with respect to each pollutant
  - vii. Applicable air quality standards as per LULC covered in the study area and % contribution of the proposed plant to the applicable Air quality standard. In case of expansion project, the contribution should be inclusive of both existing and expanded capacity.
  - viii. No. I-VII are to be repeated for fugitive emissions and any other source type relevant and used for industry
  - ix. Graphs of monthly average daily concentration with down-wind distance
  - x. Specify when and where the ambient air quality standards are exceeded either due to the proposed plant alone or when the plant contribution is added to the background air quality.
  - xi. Fugitive dust protection or dust reduction technology for workers within 30 m of the plant active areas.
34. Impact of the transport of the raw materials and end products on the surrounding environment should be assessed and provided.
  35. One season data for gaseous emissions other than monsoon season is necessary.
  36. Presence of aquifer(s) within 1 km of the project boundaries and management plan for recharging the aquifer should be included.
  37. Source of surface/ground water level, site (GPS), cation, anion (Ion Chromatograph), metal trace element (as above) chemical analysis for water to be used along with a Piper and Piper Duro-V diagram. If surface water is used from river, rainfall, discharge rate, quantity, drainage and distance from project site should also be included.
  38. Ground water analysis with bore well data, litho-logs, drawdown and recovery tests to quantify the area and volume of aquifer and its management.
  39. Ground water modelling showing the pathways of the pollutants should be included
  40. Column leachate study for all types of stockpiles or waste disposal sites, at 20 °C-50 °C should be conducted and included.
  41. Action plan for rainwater harvesting measures at plant site should be submitted to harvest rainwater from the roof tops and storm water drains to recharge the ground water and also to use for the various activities at the project site to conserve fresh water and reduce the water requirement from other sources. Rain water harvesting and groundwater recharge structures may also be constructed outside the plant premises in consultation with local Gram Panchayat and Village Heads to augment the ground water level. Incorporation of water harvesting plan for the project is necessary, if source of water is bore well.
  42. Permission for the drawl of water from the concerned authority and water balance data including quantity of effluent generated, recycled and reused and discharged is to be provided. Methods adopted/to be adopted for the water conservation should be included.
  43. A note on the impact of drawl of water on the nearby River during lean season.
  44. Surface water quality of nearby River (60 m upstream and downstream) and other surface drains at eight locations must be ascertained.

- km radius of any major river, Flood Hazard Zonation at 1:5000 to 1:10,000 scale indicating the peak and as well as flood occurrence frequency.
46. A note on treatment of wastewater from different plants, recycle and reuse for different purposes should be included.
  47. Provision of traps and treatment plants are to be made, if water is getting mixed with oil, grease and cleaning agents.
  48. If the water is mixed with solid particulates, proposal for sediment pond before further transport should be included. The sediment pond capacity should be 100 times the transport capacity.
  49. The pathways for pollution via seepages, evaporation, residual remains are to be studied for surface water (drainage, rivers, ponds, and lakes), sub-surface and ground water with a monitoring and management plans.
  50. Ground water monitoring minimum at 8 locations and near solid waste dump zone, Geological features and Geo-hydrological status of the study area are essential as also. Ecological status (Terrestrial and Aquatic) is vital.
  51. Action plan for solid/hazardous waste generation, storage, utilization and disposal. A note on the treatment, storage and disposal of all type of solid waste should be included. End use of solid waste and its composition should be covered.
  52. All stock piles will have to be on top of a stable liner to avoid leaching of materials to ground water.
  53. Detailed description of the flora and fauna (terrestrial and aquatic) should be given with special reference to rare, endemic and endangered species.
  54. Action plan for the green belt development plan in 33 % area should be included. The green belt should be around the project boundary and a scheme for greening of the travelling roads should also be incorporated. All rooftops/terraces should have some green cover.
  55. Disaster Management Plan including risk assessment & damage control needs to be addressed and included.
  56. Details regarding expected Occupational & Safety Hazards. Protective measures for Occupational Safety & Health hazards so that such exposure can be kept within permissible exposure level so as to protect health of workers. Health of the workers with special reference to Occupational Health. Plan of exposure specific health status evaluation of workers; pre placement and periodical health status of workers; plan of evaluation of health of workers by pre designed format, chest x ray, Audiometry, Spirometry Vision testing (Far & Near vision, colour vision and any other ocular defect) ECG, during pre placement and periodical examinations and plan of monthly and yearly report of the health status of workers with special reference to Occupational Health and Safety.
  57. 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.



- any have system of reporting of non compliances / environmental norms to the Board of Directors of the / or shareholders or stakeholders at large? This reporting mechanism should be detailed in the EIA report.
58. 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.
  59. A note on identification and implementation of Carbon Credit project should be included.
  60. Total capital cost and recurring cost/annum for environmental pollution control measures.
  61. 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.
  62. Any litigation pending against the project and / or any direction / order passed by any Court of Law against the project, if so, details thereof.

The following general points should be noted:

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

It was decided that TORs prescribed by the Reconstituted Expert Appraisal Committee (Industry) should be considered for preparation of EIA / EMP report for the above mentioned project in addition to all the relevant information as per the Generic Structure of EIA given in Appendix III and IIIA in the EIA Notification, 2006. The draft EIA/EMP report shall be submitted to the Chhattisgarh Environment Conservation Board for public hearing. The issues emerged and response to the issues shall be incorporated in the EIA report. The final EIA report shall be submitted to the Ministry for obtaining environmental clearance.

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

Production by Installation of Unit III [Clinker - 3.5  
ment - 1.0 to 4.0 MTPA] at village Sonadi, District  
Chhattisgarh by M/s Lafarge India Private Limited

**- regarding TORs.**

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

M/s Lafarge India Private Limited have proposed to increase the clinker production from 3.5 MTPA to 6.0 MTPA and Cement from 1.0 to 4.0 MTPA by installation of unit III near village Sonadi, P.O. Raseda, Balodabazar-Bhatapara district, Chhattisgarh. The clinker produced will be sent to Mejia grinding unit located at Amdanga village, Bankura district, West Bengal. The land requirement for the proposed expansion is 91.886 Ha which is already available within the existing premises. 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. The water requirement for the proposed expansion is 750 m<sup>3</sup>/day which will be met from Seonath river. The power requirement for unit III is 16 MVA which will be sourced from CSEB grid. The Seonath river, Jamuniya N and Khorsi Nala are located at distance of 2.1 km, 3.8km and 3.6km respectively from the project site. The Mohtara Reserve Forests (RF), Latwa RF and Sonbarsa RF are located at a distance of 3.1km, 6.6km and 4.5km respectively from the project site. The raw materials required are limestone, coal, sandstone, iron ore, clay and gypsum. Limestone will be sourced from Chilhati Limestone Mine located at a distance 5km away from the plant. Total cost of the project is Rs.900 crores.

To control the air emissions, bag House for the Kiln/raw mill, ESP for cooler and Bag filters for other emission sources will be provided. All outlets will be designed to meet outlet PM concentration of less than 50 mg/Nm<sup>3</sup>. Stacks of adequate height will be installed. Low NOx burners will be provided to reduce NOx emissions. There will be no wastewater generation and solid waste generation from the plant.

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

1. Executive summary of the project
2. Photographs of the existing and proposed plant area
3. Compliance to the conditions stipulated in the Environmental Clearance / NOC granted by the SPCB.
4. A certified copy of the report of the status of compliance of the conditions stipulated in the environmental clearance and Consent to Operate for the ongoing / existing operation of the project by the Regional Office of the Ministry of Environment and Forests and SPCB.
5. Recent monitoring report from SPCB, which shall include data on AAQ, water quality, solid waste etc. shall be submitted.
6. Has the unit received any notice under the Section 5 of Environment (Protection) Act, 1986 or relevant Sections of Air and Water Acts? If so, compliance to the notice(s)
7. Copies of coal linkage documents
8. A line diagram/flow sheet for the process and EMP

- aire for industry sector should be submitted while
- on Indian map of 1:10, 00,000 scale followed by 1:50,000/1:25,000 scale on an A3/A2 sheet with at least next 10 Kms of terrains i.e. circle of 10 kms and further 10 kms on A3/A2 sheets with proper longitude/latitude/heights with min. 100/200 m. contours should be included. 3-D view i.e. DEM (Digital Elevation Model) for the area in 10 km radius from the proposal site.
11. Present land use should be prepared based on satellite imagery. High-resolution satellite image data having 1m-5m spatial resolution like quickbird, Ikonos, IRS P-6 pan sharpened etc. for the 10Km radius area from proposed site. The same should be used for land used/land-cover mapping of the area.
  12. Break up of small, medium and large farmers from whom the land is being acquired. If small farmers are involved, a detailed R&R plan.
  13. Location of national parks / wildlife sanctuary / reserve forests within 10 km. radius should specifically be mentioned. A map showing land use / land cover, reserved forests, wildlife sanctuaries, national parks, tiger reserve etc. in 10 km of the project site.
  14. Project site layout plan to scale using AutoCAD showing raw materials, fly ash and other storage plans, bore well or water storage, aquifers (within 1 km.) dumping, waste disposal, green areas, water bodies, rivers/drainage passing through the project site should be included.
  15. Details and classification of total land (identified and acquired) should be included.
  16. Proposal should be submitted to the Ministry for environment clearance only after acquiring total land. Necessary documents indicating acquisition of land should be included.
  17. Rehabilitation & Resettlement (R & R) should be as per policy of the State Govt. and a detailed action plan should be included.
  18. Permission and approval for the use of forest land and recommendations of the State Forest Department regarding impact of proposed expansion on the surrounding reserve forests, if applicable, should be included.
  19. A list of industries containing name and type in 10 km radius shall be incorporated.
  20. Residential colony should be located in upwind direction.
  21. List of raw material required and source along with mode of transportation should be included. All the trucks for raw material and finished product transportation must be ~~100%~~ environmentally Compliant+.
  22. Petrological and Chemical analysis and other chemical properties of raw materials used (with GPS location of source of raw material) i.e. ores, minerals, rock, soil, coal, iron, dolomite quartz etc. using high definition and precision instruments mentioning their detection range and methodology such Digital Analyzers, AAS with Graphite furnace, ICPMS, MICRO-WDXRF, EPMA, XRD, Nano studies or at least as per I30-10500 and WHO norms. These analysis should include trace element and metal studies like Cr (vi) Ni, Fe, As, Pb, Zn, Hg, Se, S etc. Presence of radioactive elements (U, Th etc.).
  23. Petrography, grain size analysis and Major element analysis of raw material and soil from project site and raw material should be done on the same parameters along with analysis for SiO<sub>2</sub>, Al<sub>2</sub>O<sub>3</sub>, MgO, MnO, K<sub>2</sub>O, CaO, FeO, Fe<sub>2</sub>O<sub>3</sub>, P<sub>2</sub>O<sub>5</sub>, H<sub>2</sub>O, CO<sub>2</sub>.
  24. If the rocks, ores, raw material has trace elements their petrography, ore microscopy, XRD, elemental mapping EPMA, XRF is required to quantify

- it and hence future risk involved while using it and
- Waste disposal, slurry, sludge material and solid waste generated should also be included, if the raw materials used has trace elements and a management plan.
26. Manufacturing process details for all the plants should be included.
  27. Possibility of installation of WHRB will be explored and details included
  28. Mass balance for the raw material and products should be included.
  29. Energy balance data for all the components including proposed power plant should be incorporated.
  30. Site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall should be collected.
  31. Sources of secondary emissions, its control and monitoring as per the CPCB guidelines should be included. A full chapter on fugitive emissions and control technologies should be provided.
  32. An action plan to control and monitor secondary fugitive emissions from all the sources as per the latest permissible limits issued by the Ministry vide G.S.R. 414(E) dated 30<sup>th</sup> May, 2008.
  33. Vehicular pollution control and its management plan should be submitted.
  34. A write up on use of high calorific hazardous wastes from all the sources in kiln and commitment regarding use of hazardous waste should be included.
  35. Ambient air quality at 8 locations within the study area of 10 km., aerial coverage from project site with one AAQMS in downwind direction should be carried out.
  36. The suspended particulate matter present in the ambient air must be analyzed for the presence of poly-aromatic hydrocarbons (PAH), i.e. Benzene soluble fraction. Chemical characterization of RSPM and incorporating of RSPM data.
  37. Determination of atmospheric inversion level at the project site and assessment of ground level concentration of pollutants from the stack emission based on site-specific meteorological features.
  38. Air quality modeling for all the proposed plants for specific pollutants needs to be done. APCS for the control of emissions within 50 mg/Nm<sup>3</sup> should be included. Cumulative impacts of cement plant, Captive Power Plant and mines located at a distance of 5.0 km on the ambient air quality shall be assessed.
  39. Action plan to follow National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16<sup>th</sup> November, 2009 should be included.
  40. Ambient air quality monitoring along with cumulative impact should be included for the day (24 hrs) for maximum GLC along with following :
    - i. Emissions (g/second) with and without the air pollution control measures
    - ii. Meteorological inputs (wind speed, m/s), wind direction, ambient air temperature, cloud cover, relative humidity & mixing height using SODAR on hourly basis
    - iii. Model input options for terrain, plume rise, deposition etc.
    - iv. Print-out of model input and output on hourly and daily average basis
    - v. A graph of daily averaged concentration (MGLC scenario) with downwind distance at every 500 m interval covering the exact location of GLC.
    - vi. Details of air pollution control methods used with percentage efficiency that are used for emission rate estimation with respect to each pollutant
    - vii. Applicable air quality standards as per LULC covered in the study area and % contribution of the proposed plant to the applicable Air quality

- of expansion project, the contribution should be  
sting and expanded capacity.  
peated for fugitive emissions and any other source  
type relevant and used for industry
- ix. Graphs of monthly average daily concentration with down-wind distance
  - x. Specify when and where the ambient air quality standards are exceeded either due to the proposed plant alone or when the plant contribution is added to the background air quality.
  - xi. Fugitive dust protection or dust reduction technology for workers within 30 m of the plant active areas.
41. Impact of the transport of the raw materials and end products on the surrounding environment should be assessed and provided.
  42. One season data for gaseous emissions other than monsoon season is necessary.
  43. Presence of aquifer(s) within 1 km of the project boundaries and management plan for recharging the aquifer should be included.
  44. Source of surface/ground water level, site (GPS), cation, anion (Ion Chromatograph), metal trace element (as above) chemical analysis for water to be used along with a Piper and Piper Duro-V diagram. If surface water is used from river, rainfall, discharge rate, quantity, drainage and distance from project site should also be included.
  45. Ground water analysis with bore well data, litho-logs, drawdown and recovery tests to quantify the area and volume of aquifer and its management.
  46. Ground water modelling showing the pathways of the pollutants should be included
  47. Column leachate study for all types of stockpiles or waste disposal sites, at 20 °C-50 °C should be conducted and included.
  48. Action plan for rainwater harvesting measures at plant site should be submitted to harvest rainwater from the roof tops and storm water drains to recharge the ground water and also to use for the various activities at the project site to conserve fresh water and reduce the water requirement from other sources. Rain water harvesting and groundwater recharge structures may also be constructed outside the plant premises in consultation with local Gram Panchayat and Village Heads to augment the ground water level. Incorporation of water harvesting plan for the project is necessary, if source of water is bore well.
  49. Permission for the drawl of water from the concerned authority and water balance data including quantity of effluent generated, recycled and reused and discharged is to be provided. Methods adopted/to be adopted for the water conservation should be included.
  50. A note on the impact of drawl of water on the nearby River during lean season. Five year action plan to reduce intake of water from the river by enhancing the water use by rain water harvesting.
  51. Surface water quality of nearby River (60 m upstream and downstream) and other surface drains at eight locations must be ascertained.
  52. If the site is within 10 km radius of any major river, Flood Hazard Zonation Mapping is required at 1:5000 to 1:10,000 scale indicating the peak and lean river discharge as well as flood occurrence frequency.
  53. A note on treatment of wastewater from different plants, recycle and reuse for different purposes should be included.
  54. Provision of traps and treatment plants are to be made, if water is getting mixed with oil, grease and cleaning agents.



- with solid particulates, proposal for sediment pond report should be included. The sediment pond capacity and the transport capacity.
56. The pathways for pollution via seepages, evaporation, residual remains are to be studied for surface water (drainage, rivers, ponds, lakes), sub-surface and ground water with a monitoring and management plans.
  57. Ground water monitoring minimum at 8 locations and near solid waste dump zone, Geological features and Geo-hydrological status of the study area are essential as also. Ecological status (Terrestrial and Aquatic) is vital.
  58. Action plan for solid/hazardous waste generation, storage, utilization and disposal. A note on the treatment, storage and disposal of all type of solid waste should be included. End use of solid waste viz. fly ash etc. and its composition should be covered.
  59. All stock piles will have to be on top of a stable liner to avoid leaching of materials to ground water.
  60. Action plan for the green belt development plan in 33 % area should be included. The green belt should be around the project boundary and a scheme for greening of the travelling roads should also be incorporated. All rooftops/terraces should have some green cover.
  61. A scheme for rainwater harvesting has to be put in place. Incorporation of water harvesting plan for the project is necessary, if source of water is bore well. Efforts should 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.
  62. Detailed description of the flora and fauna (terrestrial and aquatic) should be given with special reference to rare, endemic and endangered species.
  63. Disaster Management Plan including risk assessment & damage control needs to be addressed and included.
  64. Occupational health:
    - a. Details of existing Occupational & Safety Hazards. What are the exposure levels of above mentioned hazards and whether they are within Permissible Exposure level (PEL). If these are not within PEL, what measures the company has adopted to keep them within PEL so that health of the workers can be preserved,
    - b. Details of exposure specific health status evaluation of worker. If the workers health is being evaluated by pre designed format, chest x rays, Audiometry, Spirometry, Vision testing (Far & Near vision, colour vision and any other ocular defect) ECG, during pre placement and periodical examinations give the details of the same. Details regarding last month analyzed data of abovementioned parameters as per age, sex, duration of exposure and department wise.
    - c. Annual report of health status of workers with special reference to Occupational Health and Safety.
    - d. Action plan for the implementation of OHS standards as per OSHAS/USEPA.
    - e. Plan and fund allocation to ensure the occupational health & safety of all contract and sub-contract workers.
  65. Plan for the implementation of the recommendations made for the cement plant in the CREP guidelines must be prepared.
  66. Corporate Environment Policy
    - i. Does the company have a well laid down Environment Policy approved by its Board of Directors? If so, it may be detailed in the EIA report.

- Environment Policy prescribe for standard operating procedures to bring into focus any infringement / violation of the environmental or forest norms / conditions? If so, it may be detailed in the EIA.
- iii. What is the hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the environmental clearance conditions? Details of this system may be given.
  - iv. Does the company have system of reporting of non compliances / violations of environmental norms to the Board of Directors of the company and / or shareholders or stakeholders at large? This reporting mechanism should be detailed in the EIA report.
67. At least 5 % of the total cost of the project should be earmarked towards the Enterprise Social Commitment based on Public Hearing issues and item-wise details along with time bound action plan should be prepared and incorporated.
  68. A note on identification and implementation of Carbon Credit project should be included.
  69. Total capital cost and recurring cost/annum for environmental pollution control measures.
  70. Public hearing issues raised and commitments made by the project proponent on the same should be included separately in EIA/EMP Report in the form of tabular chart with financial budget for complying with the commitments made.
  71. Any litigation pending against the project and / or any direction / order passed by any Court of Law against the project, if so, details thereof.

The following general points should be noted:

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

It was decided that FORs prescribed by the Reconstituted Expert Appraisal Committee (Industry) should be considered for preparation of EIA / EMP report for the above mentioned project in addition to all the relevant information as per the Generic Structure of EIA given in Appendix III and IIIA in the EIA Notification, 2006. The draft EIA/EMP report shall be submitted to the Chhattisgarh Environment

hearing. The issues emerged and response to the EIA report. The final EIA report shall be submitted for environmental clearance.

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

**7.5.17 5000 TCD Sugar and 25 MW Co-generation plant at Village Konadkhed, District Parbhani, Maharashtra by M/s Baliraja Sakhar Karkhana Limited - regarding TORs.**

The project authorities gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken along with the draft Term of References for the preparation of EIA/EMP. All thermal power plants (biomass or non-hazardous solid waste as fuel) are listed at S.N. 1(d) under category A and appraised at Central level. Sugar unit  $\geq$  5000 TCD cane crushing is listed at 5 (J) under category B and appraised at state level. Since project is integrated and capacity of the CPP is  $>15$  MW, the proposal is appraised at Central level.

M/s Baliraja Sakhar Karkhana Limited have proposed to set up 5000 TCD sugar and 25 MW co-generation power plant at village Kanadkhed, Taluka Purna, District Parbhani, Maharashtra. The land requirement is 178093 m<sup>2</sup>. No Forest land is involved. No National Park, Wildlife Sanctuary is exists within 10 km radius of the project site. No court cases/litigation is pending against the project. The water requirement is 4818 m<sup>3</sup>/day. The power requirement is 9.87 MW. The raw materials required are sugar cane, lime stone, limestone, sulphur, HCL acid, oils, grease and washing soda etc. Total cost of the project is Rs.266 crores. Rs.310 lakhs and Rs.44 lakhs is earmarked as a capital cost and recurring cost per annum towards the environmental pollution control measures. Following are the product details:

S.No.	Name of Product	Capacity
1.	Sugar	18000 MT/MONTH
2.	Molasses	6000 MT/MONTH
3.	Bagasse	40800 MT/MONTH
4.	Filter Cake	6000 MT/MONTH
5.	Power	25 MW

To control the air emissions, Electrostatic Precipitator will be provided. Stack of adequate height will be installed. The effluent generation is 632 KLD and it will be treated in the ETP. Used oil will be sold to registered recyclers. ETP sludge will be used as manure.

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

1. Executive summary of the project.
2. Detailed break up of the land area along with latest photograph of the area.
3. Present land use based on satellite imagery.
4. Details of site and information related to environmental setting within 10 km radius of the project site.

eco-sensitive area such as national park/wildlife reserves within 10 km radius of project area. units in the area along with their capacity.

7. Number of working days of the sugar unit.
8. Total cost of the project along with total capital cost and recurring cost/annum for environmental pollution control measures.
9. A copy of valid consents accorded by MPCB along with point-wise compliance report.
10. Details of raw material and source of raw material. Availability of sugarcane and calculation for the sugarcane requirement in the proposed manufacturing unit.
11. Manufacturing process details of sugar plant and CPP along with process flow chart.
12. Sources and quantity of fuel for the boiler. Management of bagasse during the lean season.
13. A note on possibility for using bag filter in the boiler (90 TPH) to control particulate emission.
14. Action plan to control ambient air quality as per NAAQES Standards for PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub> and NO<sub>x</sub> as per GSR 826(E) dated 16<sup>th</sup> November, 2009.
15. 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<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub>, NO<sub>x</sub> and HC (methane & non-methane) should be collected. The monitoring stations should take into account the pre-dominant wind direction, population zone and sensitive receptors including reserved forests. Data for water and noise monitoring should also be included.
16. Mathematical modeling for calculating the dispersion of air pollutants and ground level concentration along with emissions from the boiler.
17. An action plan to control and monitor secondary fugitive emissions from all the sources.
18. Details of the use of steam from the boiler.
19. Ground water quality around the project area.
20. Details of water requirement, wastewater generation, water balance chart for sugar, and co-generation plant. Measures for water conservation by recycling and reuse to minimize the fresh water requirement.
21. Permission for the drawl of 2609 m<sup>3</sup>/day water from Kundika dam from concerned Department/Authority.
22. Measures for conservation and reuse of water should be maximised so as to keep net water consumption to a minimum.
23. Hydro-geological study of the area for availability of ground water.
24. Proposed effluent treatment system for sugar and co-generation plant. Scheme for achieving zero discharge for effluent generating from sugar unit and CPP.
25. Details of solid waste management including management plan of disposal of boiler ash.
26. Details of storage facility for bagasse.
27. Green belt development as per the CPCB guidelines.
28. List of flora and fauna in the study area.
29. Noise levels monitoring at five locations within the study area.
30. Traffic study of the area for the proposed projects in respect of existing traffic, type of vehicles, frequency of vehicles for transportation of materials, additional traffic due to proposed project, parking arrangement etc.
31. Detailed Environment Management Plan (EMP) with specific reference to details of air pollution control system, water & wastewater management,

- responsibility and time bound implementation plan for  
to be provided.
- include the concept of waste-minimization,  
recycle/reuse/recover techniques, Energy conservation, and natural resource  
conservation.
33. Risk assessment for storage and handling of alcohol and mitigation measure  
due to fire and explosion and handling areas.
  34. Provision of foam system for fire fighting to control fire from the alcohol  
storage tank.
  35. Action plan for rainwater harvesting measures at plant site to harvest  
rainwater from the roof tops and storm water drains to recharge the ground  
water.
  36. Details of occupational health surveillance programme.
  37. Details of socio-economic welfare activities.
  38. Action plan for post-project environmental monitoring.
  39. Any litigation pending against the project and /or any direction /order passed  
by any Court of Law against the project, if so, details thereof.
  40. Public hearing issues raised and commitments made by the project proponent  
on the same should be included separately in EIA/EMP Report in the form of  
tabular chart with financial budget for complying with the commitments made.
  41. Confirmation regarding no distillery unit will be installed without approval for  
MoEF.
  42. A tabular chart with index for point-wise compliance of above TORs.

The following general points should be noted:

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

It was decided that TORs prescribed by the Reconstituted Expert Appraisal  
Committee (Industry) should be considered for preparation of EIA / EMP report for  
the above mentioned project in addition to all the relevant information as per the  
Generic Structure of EIA given in Appendix III and IIIA in the EIA Notification, 2006.  
The draft EIA/EMP report shall be submitted to the Maharashtra Pollution Board for  
public hearing. The issues emerged and response to the issues shall be incorporated  
in the EIA report. The final EIA report shall be submitted to the Ministry for obtaining  
environmental clearance.



will be valid for a period of two years for submission of public hearing proceedings.

7.5.18 Proposed expansion project of MS Billets/SS Billets production (79,200 TPA) at Village Samkhiyali, Taluka Bhachau, District Kutch, Gujarat by **M/s Gallant Metal Ltd. – regarding TORs.**

The project authorities along with their consultant [M/s Detox Corporation Private Limited] gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken along with the draft Terms of References for the preparation of EIA/EMP report. The proposed project activity is listed at S.No. 3(a) under Category Bq of the schedule of EIA Notification, 2006. Since the existing unit is a category Aq project and being a proposal for expansion to Aq category project as per the Schedule of EIA Notification, 2006, the proposal has been appraised by the Expert Appraisal Committee (Industry) in the Ministry.

M/s Gallant Metal Limited have proposed to expand their manufacturing unit at 175/1, 175/2, 176, 177, 178, 179/1, 179/2, 179/3, 182/1, 182/2, 183/1, 183/2, 184, 185/1, 185/2, 185/3, 185/4, 185/5, Village :Samkhiyali, Taluka: Bhachau, Dist: Kutch, Gujarat by manufacturing MS Billets/SS Billets of 79,200 TPA. The land requirement is 0.5 acres which is already available within the existing premises of 116 acres. In the existing premises, there is a captive power plant of 12 MW capacity for which was granted EC by the Ministry vide letter no. J-13011/37/2007-IA-II(T) on 28.9.2007. Thereafter, the proponent has obtained another EC from the Ministry vide letter no. J-11011/231/2009-IA.II(I) dated 8.6.2009 for the expansion of sponge iron (5250 MT/MONTH), WHRB (2MW) and AFBC (5 MW). Public Hearing for this project was conducted during 2007. The raw materials required are sponge iron (55000 TPA) and scrap (35000 TPA). The water requirement for the proposed expansion is 182.7 KLD. No Forest land is involved. No National Park, Wildlife Sanctuary is exists within 10 km radius of the project site. No court cases/litigation is pending against the project. Project cost is Rs. 15 crores.

To control the air emissions, induration furnace will be equipped with cyclone separator and wet scrubber. There will be no industrial wastewater generation. The domestic wastewater generation is 1.35 KLD which will be treated in the STP. Used oil will be sold to registered recyclers.

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

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

and any notice under the Section 5 of Environment Protection Act, 1986 or relevant Sections of Air and Water Acts? If so, provide the name of the authority/office(s).

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

control and monitor secondary fugitive emissions from the latest permissible limits issued by the Ministry dated 30<sup>th</sup> May, 2008.

29. Vehicular pollution control and its management plan should be submitted.
30. A write up on use of high calorific hazardous wastes from all the sources in kiln and commitment regarding use of hazardous waste should be included.
31. Ambient air quality at 8 locations within the study area of 10 km., aerial coverage from project site with one AAQMS in downwind direction should be carried out.
32. The suspended particulate matter present in the ambient air must be analyzed for the presence of poly-aromatic hydrocarbons (PAH), i.e. Benzene soluble fraction. Chemical characterization of RSPM and incorporating of RSPM data.
33. 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.
34. Air quality modeling for all the plants proposed for specific pollutants needs to be done. APCS for the control of emissions within 50 mg/Nm<sup>3</sup> should be included. Cumulative impacts of existing sponge iron plant and Captive Power Plant on the ambient air quality shall be assessed.
35. Action plan to follow National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16<sup>th</sup> November, 2009 should be included.
36. Ambient air quality monitoring along with cumulative impact should be included for the day (24 hrs) for maximum GLC along with following :
  - i. Emissions (g/second) with and without the air pollution control measures
  - ii. Meteorological inputs (wind speed, m/s), wind direction, ambient air temperature, cloud cover, relative humidity & mixing height using SODAR on hourly basis
  - iii. Model input options for terrain, plume rise, deposition etc.
  - iv. Print-out of model input and output on hourly and daily average basis
  - v. A graph of daily averaged concentration (MGLC scenario) with downwind distance at every 500 m interval covering the exact location of GLC.
  - vi. Details of air pollution control methods used with percentage efficiency that are used for emission rate estimation with respect to each pollutant
  - vii. Applicable air quality standards as per LULC covered in the study area and % contribution of the proposed plant to the applicable Air quality standard. In case of expansion project, the contribution should be inclusive of both existing and expanded capacity.
  - viii. No. I-VII are to be repeated for fugitive emissions and any other source type relevant and used for industry
  - ix. Graphs of monthly average daily concentration with down-wind distance
  - x. Specify when and where the ambient air quality standards are exceeded either due to the proposed plant alone or when the plant contribution is added to the background air quality.
  - xi. Fugitive dust protection or dust reduction technology for workers within 30 m of the plant active areas.
37. Impact of the transport of the raw materials and end products on the surrounding environment should be assessed and provided.
38. One season data for gaseous emissions other than monsoon season is necessary.
39. Presence of aquifer(s) within 1 km of the project boundaries and management plan for recharging the aquifer should be included.

- ground water level, site (GPS), cation, anion (lonal trace element (as above) chemical analysis for g with a Piper and Piper Duro-V diagram. If surface water is used from river, rainfall, discharge rate, quantity, drainage and distance from project site should also be included.
41. Ground water analysis with bore well data, litho-logs, drawdown and recovery tests to quantify the area and volume of aquifer and its management.
  42. Ground water modelling showing the pathways of the pollutants should be included
  43. Column leachate study for all types of stockpiles or waste disposal sites, at 20 °C-50 °C should be conducted and included.
  44. Action plan for rainwater harvesting measures at plant site should be submitted to harvest rainwater from the roof tops and storm water drains to recharge the ground water and also to use for the various activities at the project site to conserve fresh water and reduce the water requirement from other sources. Rain water harvesting and groundwater recharge structures may also be constructed outside the plant premises in consultation with local Gram Panchayat and Village Heads to augment the ground water level. Incorporation of water harvesting plan for the project is necessary, if source of water is bore well.
  45. Permission for the drawl of water from the concerned authority and water balance data including quantity of effluent generated, recycled and reused and discharged is to be provided. Methods adopted/to be adopted for the water conservation should be included.
  46. A note on the impact of drawl of water on the nearby River during lean season.
  47. Surface water quality of nearby River (60 m upstream and downstream) and other surface drains at eight locations must be ascertained.
  48. If the site is within 10 km radius of any major river, Flood Hazard Zonation Mapping is required at 1:5000 to 1:10,000 scale indicating the peak and lean river discharge as well as flood occurrence frequency.
  49. A note on treatment of wastewater from different plants, recycle and reuse for different purposes should be included.
  50. Provision of traps and treatment plants are to be made, if water is getting mixed with oil, grease and cleaning agents.
  51. If the water is mixed with solid particulates, proposal for sediment pond before further transport should be included. The sediment pond capacity should be 100 times the transport capacity.
  52. The pathways for pollution via seepages, evaporation, residual remains are to be studied for surface water (drainage, rivers, ponds, lakes), sub-surface and ground water with a monitoring and management plans.
  53. Ground water monitoring minimum at 8 locations and near solid waste dump zone, Geological features and Geo-hydrological status of the study area are essential as also. Ecological status (Terrestrial and Aquatic) is vital.
  54. Action plan for solid/hazardous waste generation, storage, utilization and disposal. A note on the treatment, storage and disposal of all type of solid waste should be included. End use of solid waste viz. fly ash etc. and its composition should be covered.
  55. All stock piles will have to be on top of a stable liner to avoid leaching of materials to ground water.
  56. Action plan for the green belt development plan in 33 % area should be included. The green belt should be around the project boundary and a

- of the travelling roads should also be incorporated. should have some green cover. of the flora and fauna (terrestrial and aquatic) should be given with special reference to rare, endemic and endangered species.
58. Disaster Management Plan including risk assessment & damage control needs to be addressed and included.
  59. Occupational health:
    - a. Details of existing Occupational & Safety Hazards. What are the exposure levels of above mentioned hazards and whether they are within Permissible Exposure level (PEL). If these are not within PEL, what measures the company has adopted to keep them within PEL so that health of the workers can be preserved,
    - b. Details of exposure specific health status evaluation of worker. If the workers health is being evaluated by pre designed format, chest x rays, Audiometry, Spirometry, Vision testing (Far & Near vision, colour vision and any other ocular defect) ECG, during pre placement and periodical examinations give the details of the same. Details regarding last month analyzed data of abovementioned parameters as per age, sex, duration of exposure and department wise.
    - c. Annual report of health status of workers with special reference to Occupational Health and Safety.
    - d. Action plan for the implementation of OHS standards as per OSHAS/USEPA.
    - e. Plan and fund allocation to ensure the occupational health & safety of all contract and sub-contract workers.
  60. Corporate Environment Policy
    - i. Does the company have a well laid down Environment Policy approved by its Board of Directors? If so, it may be detailed in the EIA report.
    - ii. Does the Environment Policy prescribe for standard operating process / procedures to bring into focus any infringement / deviation / violation of the environmental or forest norms / conditions? If so, it may be detailed in the EIA.
    - iii. What is the hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the environmental clearance conditions? Details of this system may be given.
    - iv. Does the company have system of reporting of non compliances / violations of environmental norms to the Board of Directors of the company and / or shareholders or stakeholders at large? This reporting mechanism should be detailed in the EIA report.
  61. 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.
  62. A note on identification and implementation of Carbon Credit project should be included.
  63. Total capital cost and recurring cost/annum for environmental pollution control measures.
  64. Public hearing issues raised and commitments made by the project proponent on the same should be included separately in EIA/EMP Report in the form of tabular chart with financial budget for complying with the commitments made.
  65. Any litigation pending against the project and / or any direction / order passed by any Court of Law against the project, if so, details thereof.



should be noted:

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

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

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

**7.5.19 Sponge iron Plant, Induction Furnace, Rolling Mill, Coal Char based at Village Hesla, P.O. Argada, District Ramgarh, Jharkhand by M/s Jharkhand Ispat Pvt. Ltd. – Regarding TORs.**

The Committee deferred the consideration of the proposal as the proponent has already established and operating 2x100 TPD sponge iron unit without obtaining prior environmental clearance from the Ministry.

It is noted that M/s Jharkhand Ispat Private Limited has established and operating 4 x100 TPD sponge iron unit at Village Hesla, P.O. Argada, District Ramgarh, Jharkhand. Out of the 4 x100 TPD sponge iron units, 2x100 TPD units were established during the year of 2003 for which CTE and CTO were issued by the Jharkhand State Pollution Control Board (JSPCB). For the remaining 2x100 TPD sponge iron unit, the CTE and CTO were issued by the JSPCB on 6.11.2006 and 24.12.2011 respectively. At the time of renewal of application for the CTO, JSPCB directed the proponent to stop operation of the 2x100 TPD sponge iron unit till Environmental Clearance is obtained.

al involves violation, the Committee recommended the violation matter in accordance with its Office

**7.5.20 Aluminium Phosphide and its Formulation at Plot No. L/11, GIDC, National Highway 8-B, Kuvadava, District: Rajkot, Gujarat by M/s Sarthi Chem-Tech Pvt. Ltd. – Regarding TORs.**

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

M/s Sarthi Chem-Tech Private Limited have proposed to manufacture Aluminum Phosphide and its formulation Plot No. L/11, GIDC, National Highway 8-B, Kuvadava, District: Rajkot, Gujarat. Total plot area is 4611 m<sup>2</sup>. No Forest land is involved. No National Park, Wildlife Sanctuary is exists within 10 km radius of the project site. No court cases/litigation is pending against the project. The power requirement for the proposed expansion is 200 KVA which will be met from the State Grid. The water requirement is 10.5KLD which will be sourced from GIDC water supply. Project cost is Rs. 4 crores.

Following are the details of the proposed product details.

<b>Sr. No.</b>	<b>Name of Product</b>	<b>Quantity (MT/Month)</b>
<b>Technical Product</b>		
1.	Aluminum Phosphide	150
<b>Formulation Product</b>		
1.	Aluminium Phosphide 56-60 %TC	250-270
<b>By Products</b>		
1	H <sub>3</sub> PO <sub>4</sub> (12-15%)	65
<b>Technical Product</b>		
1.	Aluminum-Powder	70
2.	Phosphorous	94
<b>Formulation Product</b>		
1.	Aluminum Phosphide	150
2.	Ingredient	100-170
i	Wax	
ii	Urea	
iii	Zn Stearate	
iv	Graphite	

Stack of adequate height will be provided. Water will be consumed only for utilities, domestic purpose & greenbelt development. No wastewater will be generated from the manufacturing process. Only rejection of water treatment and bleed off of cooling tower will be generated and it is collected in collection tank. The volume of waste water will be 2.0 kl/day. The collected wastewater after neutralization will be reused for gardening within the factory premises. Domestic wastewater generated from toilets (approximately 2.0 kl/day) will be disposed in septic tanks and soak pit. No solid or hazardous waste will be generated from the

oil will be generated with estimate quantity of 0.2  
red recycler.

As per the recommendations of the Expert Appraisal Committee prescribed the following TORs for preparation of EIA/EMP:

1. Executive summary of the project
2. Justification of the project.
3. The earlier questionnaire for industry sector should be submitted while submitting EIA/EMP.
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. A copy of Gazette Notification issued by the Govt. of Gujarat indicating location of the project in notified industrial area should be included necessarily.
9. Infrastructure facilities including power sources.
10. Total cost of the project along with total capital cost and recurring cost/annum for environmental pollution control measures.
11. Project site location along with photographs and site map of 10 km area and site details providing various industries, surface water bodies, forests etc.
12. Present land use based on satellite imagery for the study area of 10 km radius.
13. Location of National Park/Wild life sanctuary/Reserve Forest within 10 km radius of the project.
14. Details of the total land and break-up of the land use for green belt and other uses.
15. List of products along with the production capacities.
16. Detailed list of raw material required and source, mode of storage and transportation.
17. Manufacturing process details along with the chemical reactions and process flow chart.
18. A report on study of dioxine emissions from other existing plant located anywhere.
19. Site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall is necessary.
20. Ambient air quality monitoring at 6 locations within the study area of 5 km., aerial coverage from project site as per NAAQES notified on 16<sup>th</sup> September, 2009. Location of one AAQMS in downwind direction.
21. 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<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub>, NO<sub>x</sub>, HCl, Cl<sub>2</sub> including HC and VOCs should be collected. The monitoring stations should take into account the pre-dominant wind direction, population zone and sensitive receptors including reserved forests. Data for water and noise monitoring should also be included.
22. Air pollution control measures proposed for the effective control of gaseous emissions within permissible limits.
23. Name of all the solvents to be used in the process and details of solvent recovery system.
24. Design details of ETP, incinerator, if any along with control of Dioxin & Furan, boiler, scrubbers/bag filters etc.
25. Details of water and air pollution and its mitigation plan

ambient air quality as per NAAQES Standards notified in October, 2009.

and monitor secondary fugitive emissions from all the sources.

28. Determination of atmospheric inversion level at the project site and assessment of ground level concentration of pollutants from the stack emission based on site-specific meteorological features. Air quality modelling for proposed plant.
29. Permission from Competent Authority for the drawl of 54 m<sup>3</sup>/day water from the public water supply. Water balance chart including quantity of effluent generated recycled and reused and discharged.
30. Action plan for ~~Zero~~ discharge of effluent should be included.
31. Ground water quality monitoring minimum at 6 locations should be carried out. Geological features and Geo-hydrological status of the study area and ecological status (Terrestrial and Aquatic).
32. The details of solid and hazardous wastes generation, storage, utilization and disposal particularly related to the hazardous waste calorific value of hazardous waste and detailed characteristic of the hazardous waste. Action plan for the management of fly ash generated from boiler should be included.
33. Precautions to be taken during storage and transportation of hazardous chemicals should be clearly mentioned and incorporated.
34. Authorization/Membership for the disposal of liquid effluent in CETP and solid/hazardous waste in TSDF.
35. Risk assessment for storage for chemicals/solvents. Details of antidotes/safety systems/accident prevention provisions may be provided.
36. Material safety data sheet to be submitted. CAS No./RTECS No./DOT/UN etc to be mentioned against each chemicals.
37. An action plan to develop green belt in 33 % area. Layout map indicating greenbelt to be submitted.
38. Action plan for rainwater harvesting measures at plant site should be included to harvest rainwater from the roof tops and storm water drains to recharge the ground water.
39. Details of occupational health programme.
  - viii) To which chemicals, workers are exposed directly or indirectly.
  - ix) Whether these chemicals are within Thresh Limit Values (TLV)/ Permissible Exposure Levels as per ACGIH recommendation.
  - x) What measures company has taken to keep these chemicals within PEL/TLV.
  - xi) How the workers are evaluated concerning their exposure to chemicals during pre-placement and periodical medical monitoring.
  - xii) What are onsite and offsite emergency plan during chemical disaster.
  - xiii) Liver function tests (LFT) during pre-placement and periodical examination.
40. Details of occupational health surveillance programme.
41. Socio-economic development activities shall be in place.
42. Note on compliance to the recommendations mentioned in the CREP guidelines.
43. Detailed Environment management Plan (EMP) with specific reference to details of air pollution control system, water & wastewater management, monitoring frequency, responsibility and time bound implementation plan for mitigation measure shall be provided.
44. EMP shall include the concept of waste-minimization, recycle / reuse / recover techniques, Energy conservation, and natural resource conservation.
45. Total capital cost and recurring cost/annum for environmental pollution control measures.

#### Responsibility

Do you have a well laid down Environment Policy 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.
47. At least 5 % of the total cost of the project should be earmarked towards the Enterprise Social Commitment and item-wise details along with time bound action plan should be prepared and incorporated.
48. Any litigation pending against the project and/or any direction/order passed by any Court of Law against the project, if so, details thereof.
49. A tabular chart with index for point wise compliance of above TORs.

The following general points should be noted:

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

It was decided that TORs prescribed by the Expert Appraisal Committee (Industry) should be considered for preparation of EIA / EMP report for the above mentioned project in addition to all the relevant information as per the Generic Structure of EIA given in Appendix III and IIIA in the EIA Notification, 2006. Where the documents provided are in a language other than English, an English translation should be provided. The final EIA report shall be submitted to the Ministry for obtaining environmental clearance. Public hearing is not required as the unit is located in the notified industrial area.



ll be valid for a period of two years for submission of

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

The project authorities and their consultant (M/s. J.M. Environet Pvt. Ltd.) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken along with the draft Term of References for the preparation of EIA/EMP report. The Committee noted that unit was to carry out modification/upgradation in the existing ETP to improve the water quality of treated effluent. However, project proponent was unable to explain the progress status of the same. Therefore the Committee desired following additional information:

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

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

7.5.22 Proposed 0.9 MTPA Iron Ore Grinding and Beneficiation Plant and 0.6 MTPA Iron Ore Pelletisation Plant at village Gatora, Tehsil Masturi, District Bilaspur, Chhattisgarh by **M/s Hind Energy and Coal Beneficiation (India) Ltd.- regarding TORs.**

The project authorities along with their consultant (M/s. Anacon Labs, Nagpur) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken along with the draft Terms of References for the preparation of EIA/EMP report. The proposed project activity is covered under Category (A) and listed at S.No.2(a) and S.No. 3(a) of the Schedule of the EIA notification 2006 and have to be appraised at the Central level.

M/s. Hind Energy and Coal Beneficiation (India) Limited have originally proposed to set up a 0.9 MTPA Iron Ore Grinding and Beneficiation Plant, 0.6 MTPA

5 MTPA coal washery at village Gatora, Tehsil Masturi, Chhattisgarh. The Committee noted that 5 MTPA coal washery project falls under category (A) and listed at S.No.2(a) of the Schedule of the EIA notification 2006. Such stand alone coal washery projects are being appraised by the Expert Appraisal Committee . Mining Sector. The Committee asked the proponent to approach the EAC . Mining sector for appraisal of the coal washery project. Hence, the coal washery proposal is excluded by the EAC . Industry and considered only the proposal of setting up of 0.9 MTPA Iron Ore Grinding and Beneficiation Plant and 0.6 MTPA Iron-ore Pelletisation plant.

M/s. Hind Energy and Coal Beneficiation (India) Limited have proposed to set up a 0.9 MTPA Iron Ore Grinding and Beneficiation Plant and 0.6 MTPA Iron-ore Pelletisation plant at village Gatora, Tehsil Masturi, District Bilaspur, Chhattisgarh. The land requirement for the proposed project is 10 acres. No Forest land is involved. No National Park, Wildlife Sanctuary is exists within 10 km radius of the project site. No court cases/litigation is pending against the project. The Khurunga river, Arpa river and Kurung Left Bank Canal are located at a distance of 2.1km, 2.5km and 2.5 km from the project site. The raw materials required are iron ore (90,00,000 TPA), bentonite (6000 TPA) and coal etc. The power requirement is 5 MW which will be met from Chhattisgarh State Electricity Board. The water requirement is 1250 m<sup>3</sup>/day which will be drawn from Arpa Nadi/ground water sources. Project cost is Rs. 90 Crores.

Adequate stack height will be provided for wider dispersion of emissions. To control air pollution company has proposed to install Electro Static Precipitators, Multiclone, Bag Filters, etc. Dust suppression system and water sprinklers will be provided at storage and coal transfer point. To control fugitive emissions water sprinkling system will be installed at various location. Material Handling system i.e. Belt Conveyors, Transfer points, Feeders, Hoppers, Junction points will be equipped with Bag Filters & Cyclones for de-dusting. All conveyors will be covered and will have water fogging system for dust suppression. All internal roads are/ will be black topped / concrete. Greenbelt along the plant boundary and along the internal roads will be provided. Continuous online stack gas analyzer for SO<sub>2</sub> and NO<sub>x</sub> measurement will be provided. Zero effluent discharge from the process in water bodies, hence no impact is envisaged from project. The solid waste generation from the process will be ESP & bag filter dust and tailings. The ESP & bag filter dust will be recycled as a raw material for pellet making. Tailings will be sold to the cement plants.

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

1. Executive summary of the project
2. Photographs of the proposed plant area.
3. Copies of iron ore/coal linkage documents
4. A line diagram/flow sheet for the process and EMP
5. The earlier questionnaire for industry sector should be submitted while submitting EIA/EMP.
6. A site location map on Indian map of 1:10, 00,000 scale followed by 1:50,000/1:25,000 scale on an A3/A2 sheet with at least next 10 Kms of terrains i.e. circle of 10 kms and further 10 kms on A3/A2 sheets with proper longitude/latitude/heights with min. 100/200 m. contours should be included. 3-D view i.e. DEM (Digital Elevation Model) for the area in 10 km radius from the proposal site.

- ould be prepared based on satellite imagery. High-resolution satellite imagery data having 1m-5m spatial resolution like Landsat 7 ETM+, P-6 pan sharpened etc. for the 10Km radius area around the project site. The same should be used for land use/land-cover mapping of the area.
8. Break up of small, medium and large farmers from whom the land is being acquired. If small farmers are involved, a detailed R&R plan.
  9. Location of national parks / wildlife sanctuary / reserve forests within 10 km. radius should specifically be mentioned. A map showing land use / land cover, reserved forests, wildlife sanctuaries, national parks, tiger reserve etc. in 10 km of the project site.
  10. Project site layout plan to scale using AutoCAD showing raw materials, fly ash and other storage plans, bore well or water storage, aquifers (within 1 km.) dumping, waste disposal, green areas, water bodies, rivers/drainage passing through the project site should be included.
  11. Details and classification of total land (identified and acquired) should be included.
  12. Proposal should be submitted to the Ministry for environment clearance only after acquiring total land. Necessary documents indicating acquisition of land should be included.
  13. Rehabilitation & Resettlement (R & R) should be as per policy of the State Govt. and a detailed action plan should be included.
  14. Permission and approval for the use of forest land and recommendations of the State Forest Department regarding impact of proposed expansion on the surrounding reserve forests, if applicable, should be included.
  15. A list of industries containing name and type in 10 km radius shall be incorporated.
  16. Residential colony should be located in upwind direction.
  17. List of raw material required and source along with mode of transportation should be included. All the trucks for raw material and finished product transportation must be environmentally compliant.
  18. Studies for tailings, sludge material and solid waste generated should also be included, if the raw materials used has trace elements and a management plan.
  19. Manufacturing process details for all the process units should be included.
  20. Possibility of installation of WHRB will be explored and details included
  21. Mass balance for the raw material and products should be included.
  22. Energy balance data for all the components should be incorporated.
  23. Site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall should be collected.
  24. Sources of secondary emissions, its control and monitoring as per the CPCB guidelines should be included. A full chapter on fugitive emissions and control technologies should be provided.
  25. 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 30<sup>th</sup> May, 2008.
  26. Vehicular pollution control and its management plan should be submitted.
  27. A write up on use of high calorific hazardous wastes from all the sources in kiln and commitment regarding use of hazardous waste should be included.
  28. Ambient air quality at 8 locations within the study area of 10 km., aerial coverage from project site with one AAQMS in downwind direction should be carried out.
  29. The suspended particulate matter present in the ambient air must be analyzed for the presence of poly-aromatic hydrocarbons (PAH), i.e.

- tion. Chemical characterization of RSPM and  
1 data.
- 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.
31. Air quality modeling for all the plants proposed for specific pollutants  
needs to be done. APCS for the control of emissions within 50 mg/Nm<sup>3</sup>  
should be included. Cumulative impacts of mines and pellet plant on the  
ambient air quality shall be assessed.
  32. Action plan to follow National Ambient Air Quality Emission Standards  
issued by the Ministry vide G.S.R. No. 826(E) dated 16<sup>th</sup> November, 2009  
should be included.
  33. Ambient air quality monitoring along with cumulative impact should be  
included for the day (24 hrs) for maximum GLC along with following :
    - i. Emissions (g/second) with and without the air pollution control measures
    - ii. Meteorological inputs (wind speed, m/s), wind direction, ambient air  
temperature, cloud cover, relative humidity & mixing height using  
SODAR on hourly basis
    - iii. Model input options for terrain, plume rise, deposition etc.
    - iv. Print-out of model input and output on hourly and daily average basis
    - v. A graph of daily averaged concentration (MGLC scenario) with  
downwind distance at every 500 m interval covering the exact location  
of GLC.
    - vi. Details of air pollution control methods used with percentage efficiency  
that are used for emission rate estimation with respect to each pollutant
    - vii. Applicable air quality standards as per LULC covered in the study area  
and % contribution of the proposed plant to the applicable Air quality  
standard. In case of expansion project, the contribution should be  
inclusive of both existing and expanded capacity.
    - viii. No. I-VII are to be repeated for fugitive emissions and any other source  
type relevant and used for industry
    - ix. Graphs of monthly average daily concentration with down-wind distance
    - x. Specify when and where the ambient air quality standards are exceeded  
either due to the proposed plant alone or when the plant contribution is  
added to the background air quality.
    - xi. Fugitive dust protection or dust reduction technology for workers within  
30 m of the plant active areas.
  34. Impact of the transport of the raw materials and end products on the  
surrounding environment should be assessed and provided.
  35. One season data for gaseous emissions other than monsoon season is  
necessary.
  36. Presence of aquifer(s) within 1 km of the project boundaries and  
management plan for recharging the aquifer should be included.
  37. Source of surface/ground water level, site (GPS), cation, anion (Ion  
Chromatograph), metal trace element (as above) chemical analysis for  
water to be used along with a Piper and Piper Duro-V diagram. If surface  
water is used from river, rainfall, discharge rate, quantity, drainage and  
distance from project site should also be included.
  38. Ground water analysis with bore well data, litho-logs, drawdown and  
recovery tests to quantify the area and volume of aquifer and its  
management.
  39. Ground water modelling showing the pathways of the pollutants should be  
included
  40. Column leachate study for all types of stockpiles or waste disposal sites,  
at 20 °C-50 °C should be conducted and included.

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



ry Vision testing (Far & Near vision, colour vision defect) ECG, during pre placement and periodical n of monthly and yearly report of the health status of workers with special reference to Occupational Health and Safety.

#### 57. Corporate Environment Policy

- i. Does the company have a well laid down Environment Policy approved by its Board of Directors? If so, it may be detailed in the EIA report.
  - ii. Does the Environment Policy prescribe for standard operating process / procedures to bring into focus any infringement / deviation / violation of the environmental or forest norms / conditions? If so, it may be detailed in the EIA.
  - iii. What is the hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the environmental clearance conditions? Details of this system may be given.
  - iv. Does the company have system of reporting of non compliances / violations of environmental norms to the Board of Directors of the company and / or shareholders or stakeholders at large? This reporting mechanism should be detailed in the EIA report.
58. 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.
59. A note on identification and implementation of Carbon Credit project should be included.
60. Total capital cost and recurring cost/annum for environmental pollution control measures.
61. 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.
62. Any litigation pending against the project and / or any direction / order passed by any Court of Law against the project, if so, details thereof.

The following general points should be noted:

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

provided by other organization/Laboratories including approvals etc.

It was decided that TORs prescribed by the Reconstituted Expert Appraisal Committee (Industry) should be considered for preparation of EIA / EMP report for the above mentioned project in addition to all the relevant information as per the Generic Structure of EIA given in Appendix III and IIIA in the EIA Notification, 2006. The draft EIA/EMP report shall be submitted to the Chhattisgarh Environment Conservation Board for public hearing. The issues emerged and response to the issues shall be incorporated in the EIA report. The final EIA report shall be submitted to the Ministry for obtaining environmental clearance.

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

**7.5.23 Proposed Installation of 1.0 MTPA Pelletisation Plant within the existing premises of Beneficiation Plant (Under Implementation) at Village Hiremagi-Ramthal, Taluk Hungund, District Bagalkot, Karnataka by M/s Doddanavar Nanjinzha Mining & Metallurgy Pvt. Ltd. – regarding TORs.**

The project authorities gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken along with the draft Terms of References for the preparation of EIA/EMP report. The proposed project activity is covered under Category (A) and listed at S.N.3(a) of the Schedule of the EIA notification 2006 and have to be appraised at the Central level.

M/s. Doddanavar Nanjinzha Mining & Metallurgy Private Limited have proposed to set up a 1.0 MTPA Iron Ore Pelletisation Plant at Village Hiremagi-Ramthal, Hungund, District Bagalkot, Karnataka. The proposed iron ore pelletization plant will be located inside the premises of iron ore beneficiation plant (1.0 MTPA production capacity and 2 MTPA throughput) of 19.92 Ha for which environmental clearance have been granted by the Ministry vide letter no. J-11015/254/2008-IA.II(M) dated 9.6.2009. No additional land is required for the proposed expansion. No Forest land is involved. No National Park, Wildlife Sanctuary is exists within 10 km radius of the project site. No court cases/litigation is pending against the project. The Malprabha river is located at a distance of 2.8 km from the project site. The reserved forests located within the study area are: Banakatti RF(3.8km), Ramthul RF (adjacent to the site), Injanvari RF(3.5km), Benkanvari RF(8.4 km), Layadagundi RF(8.1km) and Kotnali RF (9.5 km). The raw materials required are iron ore fines (1.03 MTPA), bentonite (0.016 MTPA) and coal (0.04MTPA). The power requirement is 600 KVA which will be met from grid. The water requirement is 30 m<sup>3</sup>/day which will be drawn from river Krishna/almatti dam which is located about 25km from the project site. Project cost is Rs. 48 Crores.

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

The pellet plant will be equipped with Electro Static Precipitator. The PM emission at the outlet of the stack will be 50 mg/Nm<sup>3</sup>. Dust extraction system with bag filters will be provided to control emissions at transfer points and other dust emanating areas. Used oil will be sold to registered recyclers.

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

- the project  
existing and proposed plant area
3. Copies of iron ore linkage/coal linkage documents
  4. Compliance to the conditions stipulated in the Environmental Clearance / NOC granted by the SPCB.
  5. A certified copy of the report of the status of compliance of the conditions stipulated in the environmental clearance and Consent to Operate for the ongoing / existing operation of the project by the Regional Office of the Ministry of Environment and Forests and SPCB.
  6. Recent monitoring report from SPCB, which shall include data on AAQ, water quality, solid waste etc. shall be submitted.
  7. Has the unit received any notice under the Section 5 of Environment (Protection) Act, 1986 or relevant Sections of Air and Water Acts? If so, compliance to the notice(s)
  8. A line diagram/flow sheet for the process and EMP
  9. The earlier questionnaire for industry sector should be submitted while submitting EIA/EMP.
  10. A site location map on Indian map of 1:10, 00,000 scale followed by 1:50,000/1:25,000 scale on an A3/A2 sheet with at least next 10 Kms of terrains i.e. circle of 10 kms and further 10 kms on A3/A2 sheets with proper longitude/latitude/heights with min. 100/200 m. contours should be included. 3-D view i.e. DEM (Digital Elevation Model) for the area in 10 km radius from the proposal site.
  11. Present land use should be prepared based on satellite imagery. High-resolution satellite image data having 1m-5m spatial resolution like quickbird, Ikonos, IRS P-6 pan sharpened etc. for the 10Km radius area from proposed site. The same should be used for land used/land-cover mapping of the area.
  12. Break up of small, medium and large farmers from whom the land is being acquired. If small farmers are involved, a detailed R&R plan.
  13. Location of national parks / wildlife sanctuary / reserve forests within 10 km. radius should specifically be mentioned. A map showing land use / land cover, reserved forests, wildlife sanctuaries, national parks, tiger reserve etc. in 10 km of the project site.
  14. Project site layout plan to scale using AutoCAD showing raw materials, fly ash and other storage plans, bore well or water storage, aquifers (within 1 km.) dumping, waste disposal, green areas, water bodies, rivers/drainage passing through the project site should be included.
  15. Details and classification of total land (identified and acquired) should be included.
  16. Proposal should be submitted to the Ministry for environment clearance only after acquiring total land. Necessary documents indicating acquisition of land should be included.
  17. Rehabilitation & Resettlement (R & R) should be as per policy of the State Govt. and a detailed action plan should be included.
  18. Permission and approval for the use of forest land and recommendations of the State Forest Department regarding impact of proposed expansion on the surrounding reserve forests, if applicable, should be included.
  19. A list of industries containing name and type in 10 km radius shall be incorporated.
  20. Residential colony should be located in upwind direction.
  21. List of raw material required and source along with mode of transportation should be included. All the trucks for raw material and finished product transportation must be ~~100%~~ Environmentally Compliant.

idge material and solid waste generated should also  
raw materials used has trace elements and a

23. Manufacturing process details for all the process units should be included.
24. Possibility of installation of WHRB will be explored and details included
25. Mass balance for the raw material and products should be included.
26. Energy balance data for all the components should be incorporated.
27. Site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall should be collected.
28. Sources of secondary emissions, its control and monitoring as per the CPCB guidelines should be included. A full chapter on fugitive emissions and control technologies should be provided.
29. An action plan to control and monitor secondary fugitive emissions from all the sources as per the latest permissible limits issued by the Ministry vide G.S.R. 414(E) dated 30<sup>th</sup> May, 2008.
30. Vehicular pollution control and its management plan should be submitted.
31. A write up on use of high calorific hazardous wastes from all the sources in kiln and commitment regarding use of hazardous waste should be included.
32. Ambient air quality at 8 locations within the study area of 10 km., aerial coverage from project site with one AAQMS in downwind direction should be carried out.
33. The suspended particulate matter present in the ambient air must be analyzed for the presence of poly-aromatic hydrocarbons (PAH), i.e. Benzene soluble fraction. Chemical characterization of RSPM and incorporating of RSPM data.
34. Determination of atmospheric inversion level at the project site and assessment of ground level concentration of pollutants from the stack emission based on site-specific meteorological features.
35. Air quality modeling for all the plants proposed including mine for specific pollutants needs to be done. APCS for the control of emissions within 50 mg/Nm<sup>3</sup> should be included. Cumulative impacts of beneficiation plant and pellet plant on the ambient air quality shall be assessed.
36. Action plan to follow National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. No. 826(E) dated 18th November, 2009 should be included.
37. Ambient air quality monitoring along with cumulative impact should be included for the day (24 hrs) for maximum GLC along with following :
  - i. Emissions (g/second) with and without the air pollution control measures
  - ii. Meteorological inputs (wind speed, m/s), wind direction, ambient air temperature, cloud cover, relative humidity & mixing height using SODAR on hourly basis
  - iii. Model input options for terrain, plume rise, deposition etc.
  - iv. Print-out of model input and output on hourly and daily average basis
  - v. A graph of daily averaged concentration (MGLC scenario) with downwind distance at every 500 m interval covering the exact location of GLC.
  - vi. Details of air pollution control methods used with percentage efficiency that are used for emission rate estimation with respect to each pollutant
  - vii. Applicable air quality standards as per LULC covered in the study area and % contribution of the proposed plant to the applicable Air quality standard. In case of expansion project, the contribution should be inclusive of both existing and expanded capacity.
  - viii. No. I-VII are to be repeated for fugitive emissions and any other source type relevant and used for industry

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



- ring minimum at 8 locations and near solid waste  
al features and Geo-hydrological status of the study  
also. Ecological status (Terrestrial and Aquatic) is  
vital.
55. Action plan for solid/hazardous waste generation, storage, utilization and disposal. A note on the treatment, storage and disposal of all type of solid waste should be included. End use of solid waste and its composition should be covered.
  56. All stock piles will have to be on top of a stable liner to avoid leaching of materials to ground water.
  57. Detailed description of the flora and fauna (terrestrial and aquatic) should be given with special reference to rare, endemic and endangered species.
  58. Action plan for the green belt development plan in 33 % area should be included. The green belt should be around the project boundary and a scheme for greening of the travelling roads should also be incorporated. All rooftops/terraces should have some green cover.
  59. Disaster Management Plan including risk assessment & damage control needs to be addressed and included.
  60. Occupational health:
    - a. Details of existing Occupational & Safety Hazards. What are the exposure levels of above mentioned hazards and whether they are within Permissible Exposure level (PEL). If these are not within PEL, what measures the company has adopted to keep them within PEL so that health of the workers can be preserved,
    - b. Details of exposure specific health status evaluation of worker. If the workers health is being evaluated by pre designed format, chest x rays, Audiometry, Spirometry, Vision testing (Far & Near vision, colour vision and any other ocular defect) ECG, during pre placement and periodical examinations give the details of the same. Details regarding last month analyzed data of abovementioned parameters as per age, sex, duration of exposure and department wise.
    - c. Annual report of health status of workers with special reference to [Occupational Health and Safety](#).
    - d. Action plan for the implementation of OHS standards as per OSHAS/USEPA.
    - e. Plan and fund allocation to ensure the occupational health & safety of all contract and sub-contract workers.
  61. Corporate Environment Policy
    - i. Does the company have a well laid down Environment Policy approved by its Board of Directors? If so, it may be detailed in the EIA report.
    - ii. Does the Environment Policy prescribe for standard operating process / procedures to bring into focus any infringement / deviation / violation of the environmental or forest norms / conditions? If so, it may be detailed in the EIA.
    - iii. What is the hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the environmental clearance conditions? Details of this system may be given.
    - iv. Does the company have system of reporting of non compliances / violations of environmental norms to the Board of Directors of the company and / or shareholders or stakeholders at large? This reporting mechanism should be detailed in the EIA report.
  62. At least 5 % of the total cost of the project should be earmarked towards the Enterprise Social Commitment based on Public Hearing issues and

- g with time bound action plan should be prepared
- tion and implementation of Carbon Credit project should be included.
64. Total capital cost and recurring cost/annum for environmental pollution control measures.
  65. Public hearing issues raised and commitments made by the project proponent on the same should be included separately in EIA/EMP Report in the form of tabular chart with financial budget for complying with the commitments made.
  66. Any litigation pending against the project and / or any direction / order passed by any Court of Law against the project, if so, details thereof.

The following general points should be noted:

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

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

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

7.5.24 Proposed expansion in production capacity of existing Ingots/ TMT bars manufacturing unit at SP-7A, Kahrani, RIICO Industrial area, Distt. Alwar, (Raj.) by **M/s Shrishti Alloys Pvt. Ltd.-regarding TORs.**

The project authorities along with their consultant [M/s Consulting Engineers Group Limited, Jaipur] gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken along

nces for the preparation of EIA/EMP report. The ed under Category (B) and listed at S.No.3(a) of the 2006. However, the project site falls within 10km radius of the Interstate boundary of Haryana. As per the general condition of EIA Notification, 2006, the proposal has been appraised by the Expert Appraisal Committee (Industry) in the Ministry.

M/s Shrishti Alloys Private Limited have proposed to expand the production of M.S Ingots/TMT Bars at SP-7A, RIICO Industrial Area, Kahrani, District Alwar, Rajasthan. The land requirement for the proposed expansion is 20000 m<sup>2</sup>. No Forest land is involved. No National Park, Wildlife Sanctuary is exists within 10 km radius of the project site. No court cases/litigation is pending against the project. The power requirement for the proposed expansion is 10000 KW. The water requirement after the proposed expansion is 55m<sup>3</sup>/day which will be sourced from the RIICO water supply. The raw materials required are MS/CI scrap, sponge iron, Silico-Mn and Ferro-Silicon. Project cost is Rs. 42.25 crores (Existing:20.60 crores: Expansion:21.65 crores). The existing plant got Consent to Operate from Rajasthan State Pollution Control Board.

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

S.No.	Product details	Existing (TPA)	Proposed Expansion (MTA)	Total (MTA)
1.	M.S Ingots/TMT Bars	24000	72000	96000

Stack of adequate height will be provided. Greenbelt development will be done all along the plant boundary. Used oil will be sent to registered recyclers.

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

1. Executive summary of the project
2. Photographs of the existing and proposed plant area.
3. Compliance to the conditions stipulated in the Environmental Clearance / NOC granted by the SPCB.
4. A certified copy of the report of the status of compliance of the conditions stipulated in the environmental clearance and Consent to Operate for the ongoing / existing operation of the project by the Regional Office of the Ministry of Environment and Forests and SPCB.
5. Recent monitoring report from SPCB, which shall include data on AAQ, water quality, solid waste etc. shall be submitted.
6. Has the unit received any notice under the Section 5 of Environment (Protection) Act, 1986 or relevant Sections of Air and Water Acts? If so, compliance to the notice(s)
7. A line diagram/flow sheet for the process and EMP
8. The earlier questionnaire for industry sector should be submitted while submitting EIA/EMP.
9. A copy of Gazette Notification issued by the State Government indicating location of the project in notified industrial area should be included necessarily.
10. A site location map on Indian map of 1:10, 00,000 scale followed by 1:50,000/1:25,000 scale on an A3/A2 sheet with at least next 10 Kms of

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

- culate matter present in the ambient air must be  
presence of poly-aromatic hydrocarbons (PAH), i.e.  
action. Chemical characterization of RSPM and  
incorporating of RSPM data.
33. 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.
  34. Air quality modeling for all the plants for specific pollutants needs to be done. APCS for the control of emissions within 50 mg/Nm<sup>3</sup> should be included.
  35. Action plan to follow National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16<sup>th</sup> November, 2009 should be included.
  36. Ambient air quality monitoring along with cumulative impact should be included for the day (24 hrs) for maximum GLC along with following :
    - i. Emissions (g/second) with and without the air pollution control measures
    - ii. Meteorological inputs (wind speed, m/s), wind direction, ambient air temperature, cloud cover, relative humidity & mixing height using SODAR on hourly basis
    - iii. Model input options for terrain, plume rise, deposition etc.
    - iv. Print-out of model input and output on hourly and daily average basis
    - v. A graph of daily averaged concentration (MGLC scenario) with downwind distance at every 500 m interval covering the exact location of GLC.
    - vi. Details of air pollution control methods used with percentage efficiency that are used for emission rate estimation with respect to each pollutant
    - vii. Applicable air quality standards as per LULC covered in the study area and % contribution of the proposed plant to the applicable Air quality standard. In case of expansion project, the contribution should be inclusive of both existing and expanded capacity.
    - viii. No. I-VII are to be repeated for fugitive emissions and any other source type relevant and used for industry
    - ix. Graphs of monthly average daily concentration with down-wind distance
    - x. Specify when and where the ambient air quality standards are exceeded either due to the proposed plant alone or when the plant contribution is added to the background air quality.
    - xi. Fugitive dust protection or dust reduction technology for workers within 30 m of the plant active areas.
  37. Impact of the transport of the raw materials and end products on the surrounding environment should be assessed and provided.
  38. One season data for gaseous emissions other than monsoon season is necessary.
  39. Presence of aquifer(s) within 1 km of the project boundaries and management plan for recharging the aquifer should be included.
  40. Source of surface/ground water level, site (GPS), cation, anion (Ion Chromatograph), metal trace element (as above) chemical analysis for water to be used along with a Piper and Piper Duro-V diagram. If surface water is used from river, rainfall, discharge rate, quantity, drainage and distance from project site should also be included.
  41. Ground water analysis with bore well data, litho-logs, drawdown and recovery tests to quantify the area and volume of aquifer and its management.
  42. Ground water modelling showing the pathways of the pollutants should be included



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

- The company has adopted to keep them within PEL so workers can be preserved, the specific health status evaluation of worker. If the workers health is being evaluated by pre designed format, chest x rays, Audiometry, Spirometry, Vision testing (Far & Near vision, colour vision and any other ocular defect) ECG, during pre placement and periodical examinations give the details of the same. Details regarding last month analyzed data of abovementioned parameters as per age, sex, duration of exposure and department wise.
- c. Annual report of health status of workers with special reference to Occupational Health and Safety.
  - d. Action plan for the implementation of OHS standards as per OSHAS/USEPA.
  - e. Plan and fund allocation to ensure the occupational health & safety of all contract and sub-contract workers.
60. Corporate Environment Policy
- i. Does the company have a well laid down Environment Policy approved by its Board of Directors? If so, it may be detailed in the EIA report.
  - ii. Does the Environment Policy prescribe for standard operating process / procedures to bring into focus any infringement / deviation / violation of the environmental or forest norms / conditions? If so, it may be detailed in the EIA.
  - iii. What is the hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the environmental clearance conditions? Details of this system may be given.
  - iv. Does the company have system of reporting of non compliances / violations of environmental norms to the Board of Directors of the company and / or shareholders or stakeholders at large? This reporting mechanism should be detailed in the EIA report.
61. At least 5 % of the total cost of the project should be earmarked towards the Enterprise Social Commitment based on local needs and item-wise details along with time bound action plan should be prepared and incorporated.
62. Total capital cost and recurring cost/annum for environmental pollution control measures.
63. Any litigation pending against the project and / or any direction / order passed by any Court of Law against the project, if so, details thereof.

The following general points should be noted:

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

II (I) dated 4<sup>th</sup> August, 2009, which are available on Ministry should also be followed.

involved in the preparation of EIA/EMP report after accreditation with Quality Council of India (QCI) / National Accreditation Board of Education and Training (NABET) would need to include a certificate in this regard in the EIA/EMP reports prepared by them and data provided by other organization/Laboratories including their status of approvals etc.

It was decided that TORs prescribed by the Expert Appraisal Committee (Industry) should be considered for preparation of EIA / EMP report for the above mentioned project in addition to all the relevant information as per the Generic Structure of EIA given in Appendix III and IIIA in the EIA Notification, 2006. Where the documents provided are in a language other than English, an English translation should be provided. The final EIA report shall be submitted to the Ministry for obtaining environmental clearance. Public hearing is not required as the unit is located in the notified industrial area.

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

**7.5.25 Proposed Productivity Improvement through Technological Up-gradation of the Steel Melting Shop with Electric Arc Furnace from 1,25,00 TPA to 2,00,000 TPA at Focal Point Ludhiana, Punjab by M/s Vardhman Special Steels Ltd.- regarding TORs.**

The project authorities along with their consultant [M/s GRC India Training & Analytical Laboratory, Delhi] gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken along with the draft Terms of References for the preparation of EIA/EMP report. The proposed project activity is covered under Category (B) and listed at S.No.3(a) of the Schedule of the EIA notification 2006. However, the project site falls within 10km radius of the Critically Polluted Area of Ludhiana. As per the general condition of EIA Notification, 2006, the proposal has been appraised by the Expert Appraisal Committee (Industry) in the Ministry.

M/s Vardhman Special Steels Limited have proposed to undertake a productivity improvement through technological up-gradation of the Steel Melting Shop with Electric Arc Furnace from 1, 25,000 TPA to 2, 00, 000 TPA at C- 58, Industrial Focal Point, Phase . III, Ludhiana, Punjab. The existing plant is located in an area of 19.74 acres. The additional land requirement for the proposed expansion is 5.5 acres located at a distance of approximately 3km from the existing plant. The Buddha Nallah and Sirhind Nallah is located at a distance of 3.37km and 4.90km from the project site. No Forest land is involved. No National Park, Wildlife Sanctuary is exists within 10 km radius of the project site. No court cases/litigation is pending against the project. The existing power requirement is 34.8 MVA and there will be no additional power requirement for the proposed technological upgradation. The water requirement after the proposed expansion is 838 m<sup>3</sup>/day which will be sourced from the ground water. Project cost is Rs. 33.03 crores.

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

S.No.	Details	Existing (TPA)	Proposed Expansion	Total (TPA)
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	(TPA)	
125000	75000	200000

The Committee noted that baseline data collected during April . June 2013 period will be used for the EIA/EMP report preparation.

Stack of adequate height will be provided. Bag filters will be provided to EAF/LRF. Greenbelt development will be done all along the plant boundary. Water is used to cool the billet, the water is recirculated by passing through sedimentation tank to remove the scale. The loss is compensated by makeup water. The Sewage generated is treated in the Sewage Treatment Plant within the plan site. The treated sewage is reused for flushing, gardening and irrigation purposes. EAF/LRF slag will be used for road making, filling of low lying areas and in cement plants. Dust from the Air Pollution Control equipment will be packed in HDPE bags and stored in godown and the same will be transported to common treatment, storage and disposal facilities at Nimbua Greenfield Site approved by Punjab Pollution Control Board.

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

1. Executive summary of the project
2. Photographs of the existing and proposed plant area.
3. Compliance to the conditions stipulated in the Environmental Clearance / NOC granted by the SPCB.
4. A certified copy of the report of the status of compliance of the conditions stipulated in the environmental clearance and Consent to Operate for the ongoing / existing operation of the project by the Regional Office of the Ministry of Environment and Forests and SPCB.
5. Recent monitoring report from SPCB, which shall include data on AAQ, water quality, solid waste etc. shall be submitted.
6. Has the unit received any notice under the Section 5 of Environment (Protection) Act, 1986 or relevant Sections of Air and Water Acts? If so, compliance to the notice(s)
7. A line diagram/flow sheet for the process and EMP
8. The earlier questionnaire for industry sector should be submitted while submitting EIA/EMP.
9. A copy of Gazette Notification issued by the State Government indicating location of the project in notified industrial area should be included necessarily.
10. A site location map on Indian map of 1:10, 00,000 scale followed by 1:50,000/1:25,000 scale on an A3/A2 sheet with at least next 10 Kms of terrains i.e. circle of 10 kms and further 10 kms on A3/A2 sheets with proper longitude/latitude/heights with min. 100/200 m. contours should be included. 3-D view i.e. DEM (Digital Elevation Model) for the area in 10 km radius from the proposal site.
11. Present land use should be prepared based on satellite imagery. High-resolution satellite image data having 1m-5m spatial resolution like quickbird, Ikonos, IRS P-6 pan sharpened etc. for the 10Km radius area from proposed site. The same should be used for land used/land-cover mapping of the area.
12. Location of national parks / wildlife sanctuary / reserve forests within 10 km. radius should specifically be mentioned. A map showing land use / land cover, reserved forests, wildlife sanctuaries, national parks, tiger reserve etc. in 10 km of the project site.

- to scale using AutoCAD showing raw materials, fly ash, slag, etc. Plans, bore well or water storage, aquifers (within 1 km radius), disposal, green areas, water bodies, rivers/drainage channels, etc. passing through the project site should be included.
14. Details and classification of total land (identified and acquired) should be included.
  15. Proposal should be submitted to the Ministry for environment clearance only after acquiring total land. Necessary documents indicating acquisition of land should be included.
  16. Rehabilitation & Resettlement (R & R) should be as per policy of the State Govt. and a detailed action plan should be included.
  17. Permission and approval for the use of forest land and recommendations of the State Forest Department regarding impact of proposed expansion on the surrounding reserve forests, if applicable, should be included.
  18. A list of industries containing name and type in 10 km radius shall be incorporated.
  19. Residential colony should be located in upwind direction.
  20. List of raw material required and source along with mode of transportation should be included. All the trucks for raw material and finished product transportation must be environmentally Compliant.
  21. Studies for slurry, sludge material and solid waste generated should also be included, if the raw materials used has trace elements and a management plan.
  22. Manufacturing process details for all the process units should be included.
  23. Possibility of installation of WHRB will be explored and details included
  24. Mass balance for the raw material and products should be included.
  25. Energy balance data for all the components should be incorporated.
  26. Site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall should be collected.
  27. Sources of secondary emissions, its control and monitoring as per the CPCB guidelines should be included. A full chapter on fugitive emissions and control technologies should be provided.
  28. 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 30<sup>th</sup> May, 2008.
  29. Vehicular pollution control and its management plan should be submitted.
  30. A write up on use of high calorific hazardous wastes from all the sources in kiln and commitment regarding use of hazardous waste should be included.
  31. Ambient air quality at 8 locations within the study area of 10 km., aerial coverage from project site with one AAQMS in downwind direction should be carried out.
  32. The suspended particulate matter present in the ambient air must be analyzed for the presence of poly-aromatic hydrocarbons (PAH), i.e. Benzene soluble fraction. Chemical characterization of RSPM and incorporating of RSPM data.
  33. 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.
  34. Air quality modeling for all the plants for specific pollutants needs to be done. APCS for the control of emissions within 50 mg/Nm<sup>3</sup> should be included.
  35. Action plan to follow National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16<sup>th</sup> November, 2009 should be included.



- Monitoring along with cumulative impact should be (4 hrs) for maximum GLC along with following : (and) with and without the air pollution control measures
- ii. Meteorological inputs (wind speed, m/s), wind direction, ambient air temperature, cloud cover, relative humidity & mixing height using SODAR on hourly basis
  - iii. Model input options for terrain, plume rise, deposition etc.
  - iv. Print-out of model input and output on hourly and daily average basis
  - v. A graph of daily averaged concentration (MGLC scenario) with downwind distance at every 500 m interval covering the exact location of GLC.
  - vi. Details of air pollution control methods used with percentage efficiency that are used for emission rate estimation with respect to each pollutant
  - vii. Applicable air quality standards as per LULC covered in the study area and % contribution of the proposed plant to the applicable Air quality standard. In case of expansion project, the contribution should be inclusive of both existing and expanded capacity.
  - viii. No. I-VII are to be repeated for fugitive emissions and any other source type relevant and used for industry
  - ix. Graphs of monthly average daily concentration with down-wind distance
  - x. Specify when and where the ambient air quality standards are exceeded either due to the proposed plant alone or when the plant contribution is added to the background air quality.
  - xi. Fugitive dust protection or dust reduction technology for workers within 30 m of the plant active areas.
37. Impact of the transport of the raw materials and end products on the surrounding environment should be assessed and provided.
  38. One season data for gaseous emissions other than monsoon season is necessary.
  39. Presence of aquifer(s) within 1 km of the project boundaries and management plan for recharging the aquifer should be included.
  40. Source of surface/ground water level, site (GPS), cation, anion (Ion Chromatograph), metal trace element (as above) chemical analysis for water to be used along with a Piper and Piper Duro-V diagram. If surface water is used from river, rainfall, discharge rate, quantity, drainage and distance from project site should also be included.
  41. Ground water analysis with bore well data, litho-logs, drawdown and recovery tests to quantify the area and volume of aquifer and its management.
  42. Ground water modelling showing the pathways of the pollutants should be included
  43. Column leachate study for all types of stockpiles or waste disposal sites, at 20 °C-50 °C should be conducted and included.
  44. Action plan for rainwater harvesting measures at plant site should be submitted to harvest rainwater from the roof tops and storm water drains to recharge the ground water and also to use for the various activities at the project site to conserve fresh water and reduce the water requirement from other sources. Rain water harvesting and groundwater recharge structures may also be constructed outside the plant premises in consultation with local Gram Panchayat and Village Heads to augment the ground water level. Incorporation of water harvesting plan for the project is necessary, if source of water is bore well.

- drawl of water from the concerned authority and water quantity of effluent generated, recycled and reused to be provided. Methods adopted/to be adopted for the water conservation should be included.
46. A note on the impact of drawl of water on the nearby River during lean season.
  47. Surface water quality of nearby River (60 m upstream and downstream) and other surface drains at eight locations must be ascertained.
  48. If the site is within 10 km radius of any major river, Flood Hazard Zonation Mapping is required at 1:5000 to 1:10,000 scale indicating the peak and lean river discharge as well as flood occurrence frequency.
  49. A note on treatment of wastewater from different plants, recycle and reuse for different purposes should be included.
  50. Provision of traps and treatment plants are to be made, if water is getting mixed with oil, grease and cleaning agents.
  51. If the water is mixed with solid particulates, proposal for sediment pond before further transport should be included. The sediment pond capacity should be 100 times the transport capacity.
  52. The pathways for pollution via seepages, evaporation, residual remains are to be studied for surface water (drainage, rivers, ponds, lakes), sub-surface and ground water with a monitoring and management plans.
  53. Ground water monitoring minimum at 8 locations and near solid waste dump zone, Geological features and Geo-hydrological status of the study area are essential as also. Ecological status (Terrestrial and Aquatic) is vital.
  54. Action plan for solid/hazardous waste generation, storage, utilization and disposal. A note on the treatment, storage and disposal of all type of solid waste should be included. End use of solid waste etc. and its composition should be covered.
  55. All stock piles will have to be on top of a stable liner to avoid leaching of materials to ground water.
  56. Action plan for the green belt development plan in 33 % area should be included. The green belt should be around the project boundary and a scheme for greening of the travelling roads should also be incorporated. All rooftops/terraces should have some green cover.
  57. Detailed description of the flora and fauna (terrestrial and aquatic) should be given with special reference to rare, endemic and endangered species.
  58. Disaster Management Plan including risk assessment & damage control needs to be addressed and included.
  59. Occupational health:
    - a. Details of existing Occupational & Safety Hazards. What are the exposure levels of above mentioned hazards and whether they are within Permissible Exposure level (PEL). If these are not within PEL, what measures the company has adopted to keep them within PEL so that health of the workers can be preserved,
    - b. Details of exposure specific health status evaluation of worker. If the workers health is being evaluated by pre designed format, chest x rays, Audiometry, Spirometry, Vision testing (Far & Near vision, colour vision and any other ocular defect) ECG, during pre placement and periodical examinations give the details of the same. Details regarding last month analyzed data of abovementioned parameters as per age, sex, duration of exposure and department wise.
    - c. Annual report of health status of workers with special reference to Occupational Health and Safety.

the implementation of OHS standards as per  
cation to ensure the occupational health & safety of  
all contract and sub-contract workers.

60. Corporate Environment Policy
  - i. Does the company have a well laid down Environment Policy approved by its Board of Directors? If so, it may be detailed in the EIA report.
  - ii. Does the Environment Policy prescribe for standard operating process / procedures to bring into focus any infringement / deviation / violation of the environmental or forest norms / conditions? If so, it may be detailed in the EIA.
  - iii. What is the hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the environmental clearance conditions? Details of this system may be given.
  - iv. Does the company have system of reporting of non compliances / violations of environmental norms to the Board of Directors of the company and / or shareholders or stakeholders at large? This reporting mechanism should be detailed in the EIA report.
61. At least 5 % of the total cost of the project should be earmarked towards the Enterprise Social Commitment based on local needs and item-wise details along with time bound action plan should be prepared and incorporated.
62. Total capital cost and recurring cost/annum for environmental pollution control measures.
63. Any litigation pending against the project and / or any direction / order passed by any Court of Law against the project, if so, details thereof.

The following general points should be noted:

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

It was decided that ~~FOR~~prescribed by the Expert Appraisal Committee (Industry) should be considered for preparation of EIA / EMP report for the above mentioned project in addition to all the relevant information as per the ~~Generic~~

dix III and IIIA in the EIA Notification, 2006. Where language other than English, an English translation EIA report shall be submitted to the Ministry for obtaining environmental clearance. Public hearing is not required as the unit is located in the notified industrial area.

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

**7.5.26 E.C. for proposed expansion of the Mini Integrated Steel Plant and Captive power plant at village Hosir, District Hazaribagh in Jharkhand by M/s Ramgarh Sponge Iron Pvt. Ltd. – regarding TORs.**

The Committee deferred the consideration of the proposal as the proponent has established and operating 4x100 TPD sponge iron unit without obtaining prior environmental clearance from the Ministry. As the proposal involves violation, the Committee recommended that the Ministry shall deal with the violation matter in accordance with its Office Memorandum dated 12.12.2012.

**7.5.27 Proposed Integrated Steel Plant and Power Plant, located at Village: Tilai & Murpar, Tehsil: Akaltara, District: Janjgir-Champa, Chhatisgarh by M/s Sarda Energy & Minerals Ltd.-regarding TORs.**

The project authorities along with their consultant (M/s Bhagavathi Ana Labs Limited, Hyderabad) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken along with the draft Terms of Reference for preparation of EIA/EMP report. The steel plants are listed at S.No. 3(a) in primary metallurgical industry under Category A of the Schedule of EIA notification 2006 and appraised by the Expert Appraisal Committee (Industry) of MoEF.

M/s Sarda Energy and Minerals Limited have proposed for Integrated Steel Plant and power plant at Tilai and Murpar village, Akaltara Tehsil, Janjgir-Champa District, Chhatisgarh. The total project area for phase I is 418 acres. No Forest land is involved. No national park/wild life sanctuary/ecologically sensitive area is located within 10 km radius. The Kanji Nala and Hasdeo river is located at a distance of 1km and 14 km from the project site respectively. Total cost of the project is Rs. 1255 Crores. Rs. 260 crores and Rs. 53 crores are earmarked towards capital cost and recurring cost per annum against pollution control measures (For phase I and II). Rs. 15 crores and Rs.3 crores is earmarked towards capital cost and recurring cost per annum for the CSR related activities.

The proposed facilities and production capacities are as follows:

Sl.No.	Facilities	Phase I (TPA)
1.	Sponge Iron Plant	300000 (2x500 TPD)
2.	Induction Furnace	100000 (2x15 T)
	LRF for Induction Furnace	1X30 T
	CCM (6 strand)	1X 3 strand
3.	Electric Arc Furnace	500000 (1x60 T)
	LRF for EAF	--

ilities		Phase I (TPA)
		--
		200000
5.	Power Plant - WHRB base - Coal base	175 MW 25 MW 150 MW
6.	Coal Washery	1200000 (200 TPH)

Iron ore pellet, washed coal/non coking coal, dolomite, iron ore, bentonite, pig iron etc are the raw materials that will be used. The water requirement is 8649 KLD will be sourced from Haseo river. The power requirement for 90 MW which will be met from CSPDCL/ CPP.

The sponge iron will be equipped with ESP, bag filter and deduster. Fume extraction system with cyclone and bag filter will be provided to induction furnace and electric arc furnace. The wastewater generated will be reused after adequate treatment. The solid wastes generated will be char/dolochar from sponge iron plant which will be used in power plant. The fly ash will be used in the cement and brick plant.

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

1. Executive summary of the project
2. Photographs of the proposed plant area.
3. A line diagram/flow sheet for the process and EMP
4. Coal linkage documents
5. A copy of the mutual agreement for land acquisition signed with land oustees.
6. A site location map on Indian map of 1:10, 00,000 scale followed by 1:50,000/1:25,000 scale on an A3/A2 sheet with at least next 10 Kms of terrains i.e. circle of 10 kms and further 10 kms on A3/A2 sheets with proper longitude/latitude/heights with min. 100/200 m. contours should be included. 3-D view i.e. DEM (Digital Elevation Model) for the area in 10 km radius from the proposal site. A photograph of the site should also be included.
7. Present land use should be prepared based on satellite imagery. High-resolution satellite image data having 1m-5m spatial resolution like quickbird, Ikonos, IRS P-6 pan sharpened etc. for the 10 Km radius area from proposed site. The same should be used for land used/land-cover mapping of the area.
8. Topography of the area should be given clearly indicating whether the site requires any filling. If so, details of filling, quantity of fill material required, its source, transportation etc. should be given.
9. Location of national parks/wildlife sanctuary/reserve forests within 10 km. radius should specifically be mentioned. A map showing land use/land cover, reserved forests, wildlife sanctuaries, national parks, tiger reserve etc in 10 km of the project site.
10. Project site layout plan to scale using AutoCAD showing raw materials, fly ash and other storage plans, bore well or water storage, aquifers (within 1 km.) dumping, waste disposal, green areas, water bodies, rivers/drainage passing through the project site should be included.



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te as well as ash pond with topo sheet should also

12. Details and classification of total land (identified and acquired) should be included.
13. Rehabilitation & Resettlement (R & R) should be as per policy of the State Govt. and a detailed action plan should be included.
14. Permission from the tribals, if tribal land has also to be acquired along with details of the compensation plan.
15. Permission and approval for the use of forest land, if any, and recommendations of the State Forest Department. .
16. A list of industries containing name and type in 25 km radius should be incorporated.
17. Residential colony should be located in upwind direction.
18. List of raw material required, analysis of all the raw materials and source along with mode of transportation should be included. All the trucks for raw material and finished product transportation must be %environmentally Compliant+.
19. Petrological and Chemical analysis and other chemical properties of raw materials used (with GPS location of source of raw material) i.e. ores, minerals, rock, soil, coal, iron, dolomite quartz etc. using high definition and precision instruments mentioning their detection range and methodology such Digital Analyzers, AAS with Graphite furnace, ICPMS, MICRO-WDXRF, EPMA, XRD, Nano studies or at least as per I30-10500 and WHO norms. These analysis should include trace element and metal studies like Cr (vi) Ni, Fe, As, Pb, Zn, Hg, Se, S etc. Presence of radioactive elements (U, Th etc.), if applicable, should also be included..
20. Petrography, grain size analysis and Major element analysis of raw material and soil from project site and raw material should be done on the same parameters along with analysis for SiO<sub>2</sub>, Al<sub>2</sub>O<sub>3</sub>, MgO, MnO, K<sub>2</sub>O, CaO, FeO, Fe<sub>2</sub>O<sub>3</sub>, P<sub>2</sub>O<sub>5</sub>, H<sub>2</sub>O, CO<sub>2</sub>.
21. If the rocks, ores, raw material has trace elements their petrography, ore microscopy, XRD, elemental mapping EPMA, XRF is required to quantify the amount present in it and hence future risk involved while using it and management plan.
22. Action plan for excavation and muck disposal during construction phase.
23. Studies for fly ash, muck, slurry, sludge material disposal and solid waste generated, if the raw materials used has trace elements and a management plan should also be included.
24. Manufacturing process details for all the plants should be included.
25. Mass balance for the raw material and products should be included.
26. Energy balance data for all the components of steel plant including proposed power plant should be incorporated.
27. Site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall should be collected.
28. Data generated in the last three years i.e. air, water, raw material properties and analysis (major, trace and heavy metals), ground water table, seismic history, flood hazard history etc.
29. One season site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall and AAQ data (except monsoon) should be collected. The monitoring stations should take into account the pre-dominant wind direction, population zone and sensitive receptors including reserved forests.

- 3 locations within the study area of 10 km., aerial site with one AAQMS in downwind direction should
31. The suspended particulate matter present in the ambient air must be analyzed for the presence of poly-aromatic hydrocarbons (PAH), i.e. Benzene soluble fraction. Chemical characterization of RSPM and incorporating of RSPM data.
  32. Determination of atmospheric inversion level at the project site and assessment of ground level concentration of pollutants from the stack emission based on site-specific meteorological features.
  33. Air quality modelling for steel plant for specific pollutants needs to be done. APCS for the control of emissions from the kiln and WHRB should also be included to control emissions within 50 mg/Nm<sup>3</sup>.
  34. Action plan to follow National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16<sup>th</sup> November, 2009 should be included.
  35. Ambient air quality monitoring modelling along with cumulative impact should be included for the day (24 hrs) for maximum GLC along with following :
    - i) Emissions (g/second) with and without the air pollution control measures
    - ii) Meteorological inputs (wind speed, m/s), wind direction, ambient air temperature, cloud cover, relative humidity & mixing height) on hourly basis
    - iii) Model input options for terrain, plume rise, deposition etc.
    - iv) Print-out of model input and output on hourly and daily average basis
    - v) A graph of daily averaged concentration (MGLC scenario) with downwind distance at every 500 m interval covering the exact location of GLC.
    - vi) Details of air pollution control methods used with percentage efficiency that are used for emission rate estimation with respect to each pollutant
    - vii) Applicable air quality standards as per LULC covered in the study area and % contribution of the proposed plant to the applicable Air quality standard. In case of expansion project, the contribution should be inclusive of both existing and expanded capacity.
    - viii) No. I-VII are to be repeated for fugitive emissions and any other source type relevant and used for industry
    - ix) Graphs of monthly average daily concentration with down-wind distance
    - x) Specify when and where the ambient air quality standards are exceeded either due to the proposed plant alone or when the plant contribution is added to the background air quality.
    - xi) Fugitive dust protection or dust reduction technology for workers within 30 m of the plant active areas.
  36. A plan for the utilization of waste/fuel gases in the WHRB for generating power have to be set out.
  37. Impact of the transport of the raw materials and end products on the surrounding environment should be assessed and provided. The alternate method of raw material and end product transportation should also be studied and details included.
  38. One season data for gaseous emissions other than monsoon season is necessary.

ol and monitor secondary fugitive emissions from all latest permissible limits issued by the Ministry vide <sup>h</sup> May, 2008.

40. Presence of aquifer(s) within 1 km of the project boundaries and management plan for recharging the aquifer should be included.
41. Source of surface/ground water level, site (GPS), cation, anion (Ion Chromatograph), metal trace element (as above) chemical analysis for water to be used. If surface water is used from river, rainfall, discharge rate, quantity, drainage and distance from project site should also be included. Information regarding surface hydrology and water regime should be included.
42. Ground water analysis with bore well data, litho-logs, drawdown and recovery tests to quantify the area and volume of aquifer and its management.
43. Ground water modelling showing the pathways of the pollutants should be included
44. Column leachate study for all types of stockpiles or waste disposal sites at 20°C-50°C should be conducted and included.
45. Action plan for rainwater harvesting measures at plant site should be submitted to harvest rainwater from the roof tops and storm water drains to recharge the ground water and also to use for the various activities at the project site to conserve fresh water and reduce the water requirement from other sources. Rain water harvesting and groundwater recharge structures may also be constructed outside the plant premises in consultation with local Gram Panchayat and Village Heads to augment the ground water level. Incorporation of water harvesting plan for the project is necessary, if source of water is bore well.
46. Permission for the drawl of water from the State Irrigation Department or concerned authority and water balance data including quantity of effluent generated, recycled and reused and discharged is to be provided. Methods adopted/to be adopted for the water conservation should be included.
47. A note on the impact of drawl of water on the nearby River during lean season.
48. Surface water quality of nearby River (60 m upstream and downstream) and other surface drains at eight locations must be ascertained.
49. If the site is within 10 km radius of any major river, Flood Hazard Zonation Mapping is required at 1:5000 to 1;10,000 scale indicating the peak and lean River discharge as well as flood occurrence frequency.
50. A note on treatment of wastewater from different plants, recycle and reuse for different purposes should be included.
51. Provision of traps and treatment plants are to be made, if water is getting mixed with oil, grease and cleaning agents.
52. If the water is mixed with solid particulates, proposal for sediment pond before further transport should be included. The sediment pond capacity should be 100 times the transport capacity.
53. Wastewater characteristics (heavy metals, anions and cations, trace metals, PAH) from any other source should be included.
54. The pathways for pollution via seepages, evaporation, residual remains are to be studied for surface water (drainage, rivers, ponds, and lakes), sub-surface and ground water with a monitoring and management plans.
55. Ground water monitoring minimum at 8 locations and near solid waste dump zone, Geological features and Geo-hydrological status of the study area are essential as also. Ecological status (Terrestrial and Aquatic) is vital.

- hazardous waste generation, storage, utilization and disposal from all the sources, char and fly ash. Copies of the report on ash should also be included.
57. Details of evacuation of ash, details regarding ash pond impermeability and whether it would be lined, if so details of the lining etc. need to be addressed.
  58. A note on the treatment, storage and disposal of all type of slag should be included. Identification and details of land to be used for SMS slag disposal should be included. Details of secured land fill as per CPCB guidelines should also be included.
  59. End use of solid waste and its composition should be covered. Toxic metal content in the waste material and its composition should also be incorporated particularly of slag.
  60. All stock piles will have to be on top of a stable liner to avoid leaching of materials to ground water.
  61. Action plan for the green belt development plan in 33 % area i.e. land with not less than 1,500 trees per ha. Giving details of species, width of plantation, planning schedule etc. should be included. The green belt should be around the project boundary and a scheme for greening of the travelling roads should also be incorporated. All rooftops/terraces should have some green cover.
  62. Detailed description of the flora and fauna (terrestrial and aquatic) should be given with special reference to rare, endemic and endangered species.
  63. Disaster Management Plan including risk assessment and damage control needs to be addressed and included.
  64. Details regarding expected Occupational & Safety Hazards. Protective measures for Occupational Safety & Health hazards so that such exposure can be kept within permissible exposure level so as to protect health of workers. Health of the workers with special reference to Occupational Health. Plan of exposure specific health status evaluation of workers; pre placement and periodical health status of workers; plan of evaluation of health of workers by pre designed format, chest x ray, Audiometry, Spirometry Vision testing (Far & Near vision, colour vision and any other ocular defect) ECG, during pre placement and periodical examinations and plan of monthly and yearly report of the health status of workers with special reference to Occupational Health and Safety.
  65. Corporate Environment Policy
    - i. Does the company have a well laid down Environment Policy approved by its Board of Directors? If so, it may be detailed in the EIA report.
    - ii. Does the Environment Policy prescribe for standard operating process / procedures to bring into focus any infringement / deviation / violation of the environmental or forest norms / conditions? If so, it may be detailed in the EIA.
    - iii. What is the hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the environmental clearance conditions? Details of this system may be given.
    - iv. Does the company have system of reporting of non compliances / violations of environmental norms to the Board of Directors of the company and / or shareholders or stakeholders at large? This reporting mechanism should be detailed in the EIA report
  66. 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.

on local infrastructure of the area such as road any additional infrastructure needs to be constructed possible for the same with time frame.

68. Environment Management Plan (EMP) to mitigate the adverse impacts due to the project along with item wise cost of its implementation. Total capital cost and recurring cost/annum for environmental pollution control measures should be included.
69. Plan for the implementation of the recommendations made for the steel plants in the CREP guidelines must be prepared.
70. At least 5 % of the total cost of the project should be earmarked towards the Enterprise Social Commitment based on public hearing issues and item-wise details along with time bound action plan should be included. Socio-economic development activities need to be elaborated upon.
71. 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.
72. A note on identification and implementation of Carbon Credit project should be included.
73. Any litigation pending against the project and/or any direction/order passed by any Court of Law against the project, if so, details thereof should also be included.

The following general points should be noted:

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

It was decided that FORsqprescribed by the Expert Appraisal Committee (Industry) should be considered for preparation of EIA / EMP report for the above mentioned project in addition to all the relevant information as per the Generic Structure of EIAqgiven in Appendix III and IIIA in the EIA Notification, 2006. Where the documents provided are in a language other than English, an English translation should be provided. The draft EIA/EMP report shall be submitted to the Chhattisgarh Environment Conservation Board for public hearing. The issues emerged and response to the issues shall be incorporated in the EIA report. The final EIA report shall be submitted to the Ministry for obtaining environmental clearance.



be valid for a period of two years for submission of Public Hearing Proceedings.

7.5.28 EC for proposed 2\*1,25,000 TPA calcined Petroleum Coke Plant at Village Kalaghar, PO marshaghal, Kendrapara, Odisha by **M/s Subhag Properties Private Ltd. – regarding TORs.**

The Project Authorities gave a detailed presentation on the salient features of project and proposed environmental protection measures to be undertaken along with the draft Terms of Reference for the preparation of EIA/EMP Report. The project activity is listed at Item 4(b) in Category A of the schedule of EIA Notification, 2006 and appraised by the Expert Appraisal Committee (Industry) in the MoEF.

M/s. Subhag Properties Limited have proposed to set up 2,50,000 TPA ( 2 X 1,25,000 TPA in two phases) Calcined Petroleum Coke (CPC) Plant at village Kalaghar, PO.Marshaghai, District Kendrapada, Odisha. Total project area is 21.30 acres which is non forest land. There are no National Parks/Wildlife Sanctuaries within 10 km of the project site. The water requirement is 750 KLD will be sourced from ground water. The power requirement is 1 MW. The project cost is Rs. 112.80 crores. The major raw material for the unit is Green Petroleum Coke (3,40,000 TPA) which will be imported. Rs. 10 crores and Rs. 1 crore are earmarked towards capital cost and recurring cost per annum against pollution control measures. Rs. 3.5 crores is earmarked for the CSR related activities.

All material handling points and transfer points will have Bag Filters. The emissions from all the pollution control equipment are restricted to less than 50 mg/nm<sup>3</sup>. Stack of adequate height will be provided. There will be no generation of waste water from the process.

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

1. Executive summary of the project
2. Photographs of the plant area.
3. A line diagram/flow sheet for the process and EMP
4. A site location map on Indian map of 1:10, 00,000 scale followed by 1:50,000/1:25,000 scale on an A3/A2 sheet with at least next 10 Kms of terrains i.e. circle of 10 kms and further 10 kms on A3/A2 sheets with proper longitude/latitude/heights with min. 100/200 m. contours should be included. 3-D view i.e. DEM (Digital Elevation Model) for the area in 10 km radius from the proposal site. A photograph of the site should also be included.
5. Present land use should be prepared based on satellite imagery. High-resolution satellite image data having 1m-5m spatial resolution like quickbird, Ikonos, IRS P-6 pan sharpened etc. for the 10 Km radius area from proposed site. The same should be used for land used/land-cover mapping of the area.
6. Topography of the area should be given clearly indicating whether the site requires any filling. If so, details of filling, quantity of fill material required, its source, transportation etc. should be given.
7. Location of national parks / wildlife sanctuary / reserve forests within 10 km. radius should specifically be mentioned. A map showing landuse/landcover, reserved forests, wildlife sanctuaries, national parks, tiger reserve etc in 10 km of the project site.

showing raw materials, fly ash and other storage  
er storage, aquifers (within 1 km.) dumping, waste  
water bodies, rivers/drainage passing through the

project site should be included.

9. Details and classification of total land (identified and acquired) should be included. A copy of the mutual agreement for land acquisition signed with land oustees.
10. Break up of small, medium and large farmers from whom the land is being acquired. If small farmers are involved, a detailed R&R plan.
11. Rehabilitation & Resettlement (R & R) should be as per policy of the State Govt. and a detailed action plan should be included.
12. Permission from the tribals, if tribal land has also to be acquired along with details of the compensation plan.
13. Permission and approval for the use of forest land, if any, and recommendations of the State Forest Department. .
14. A list of industries containing name and type in 25 km radius should be incorporated.
15. Residential colony should be located in upwind direction.
16. List of raw materials, analysis of all the raw materials and source along with mode of transportation should be included. All the trucks for raw material and finished product transportation must be %environmentally Compliant+.
17. If the rocks, ores, raw material has trace elements their petrography, ore microscopy, XRD, elemental mapping EPMA, XRF is required to quantify the amount present in it and hence future risk involved while using it and management plan.
18. Action plan for excavation and muck disposal during construction phase.
19. Studies for fly ash, muck, slurry, sludge material disposal and solid waste generated, if the raw materials used has trace elements and a management plan should also be included.
20. Manufacturing process details for all the plants should be included.
21. Mass balance for the raw material and products should be included.
22. Energy balance data for all the components of steel plant including proposed power plant should be incorporated.
23. Site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall should be collected.
24. Data generated in the last three years i.e. air, water, raw material properties and analysis (major, trace and heavy metals), ground water table, seismic history, flood hazard history etc.
25. One season site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall and AAQ data (except monsoon) should be collected. The monitoring stations should take into account the pre-dominant wind direction, population zone and sensitive receptors including reserved forests.
26. Ambient air quality at 8 locations within the study area of 10 km., aerial coverage from project site with one AAQMS in downwind direction should be carried out.
27. The suspended particulate matter present in the ambient air must be analyzed for the presence of poly-aromatic hydrocarbons (PAH), i.e. Benzene soluble fraction. Chemical characterization of RSPM and incorporating of RSPM data.
28. Determination of atmospheric inversion level at the project site and assessment of ground level concentration of pollutants from the stack emission based on site-specific meteorological features.

- pollutants including PAH, HC and VOC emissions  
PCS for the control of emissions from the kiln and  
included to control emissions within 50 mg/Nm<sup>3</sup>.
30. Action plan to follow National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16<sup>th</sup> November, 2009 should be included.
  31. Ambient air quality monitoring modeling along with cumulative impact should be included for the day (24 hrs) for maximum GLC along with following :
    - i) Emissions (g/second) with and without the air pollution control measures
    - ii) Meteorological inputs (wind speed, m/s), wind direction, ambient air temperature, cloud cover, relative humidity & mixing height) on hourly basis
    - iii) Model input options for terrain, plume rise, deposition etc.
    - iv) Print-out of model input and output on hourly and daily average basis
    - v) A graph of daily averaged concentration (MGLC scenario) with downwind distance at every 500 m interval covering the exact location of GLC.
    - vi) Details of air pollution control methods used with percentage efficiency that are used for emission rate estimation with respect to each pollutant
    - vii) Applicable air quality standards as per LULC covered in the study area and % contribution of the proposed plant to the applicable Air quality standard. In case of expansion project, the contribution should be inclusive of both existing and expanded capacity.
    - viii) No. I-VII are to be repeated for fugitive emissions and any other source type relevant and used for industry
    - ix) Graphs of monthly average daily concentration with down-wind distance
    - x) Specify when and where the ambient air quality standards are exceeded either due to the proposed plant alone or when the plant contribution is added to the background air quality.
    - xi) Fugitive dust protection or dust reduction technology for workers within 30 m of the plant active areas.
  32. A plan for the utilization of waste/fuel gases in the WHRB for generating power have to be set out.
  33. Impact of the transport of the raw materials and end products on the surrounding environment should be assessed and provided. The alternate method of raw material and end product transportation should also be studied and details included.
  34. One season data for gaseous emissions other than monsoon season is necessary.
  35. 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 30<sup>th</sup> May, 2008.
  36. Presence of aquifer(s) within 1 km of the project boundaries and management plan for recharging the aquifer should be included.
  37. Source of surface/ground water level, site (GPS), cation, anion (Ion Chromatograph), metal trace element (as above) chemical analysis for water to be used. If surface water is used from river, rainfall, discharge rate, quantity, drainage and distance from project site should also be included. Information regarding surface hydrology and water regime should be included.

analysis with bore well data, litho-logs, drawdown and  
to quantify the area and volume of aquifer and its

39. Ground water modeling showing the pathways of the pollutants should be included
40. Column leachate study for all types of stockpiles or waste disposal sites at 20°C-50°C should be conducted and included.
41. Action plan for rainwater harvesting measures at plant site should be submitted to harvest rainwater from the roof tops and storm water drains to recharge the ground water and also to use for the various activities at the project site to conserve fresh water and reduce the water requirement from other sources. Rain water harvesting and groundwater recharge structures may also be constructed outside the plant premises in consultation with local Gram Panchayat and Village Heads to augment the ground water level. Incorporation of water harvesting plan for the project is necessary, if source of water is bore well.
42. Permission for the drawl of water from the State Irrigation Department or concerned authority and water balance data including quantity of effluent generated, recycled and reused and discharged is to be provided. Methods adopted/to be adopted for the water conservation should be included.
43. A note on the impact of drawl of water on the nearby River during lean season.
44. Surface water quality of nearby River (60 m upstream and downstream) and other surface drains at eight locations must be ascertained.
45. If the site is within 10 km radius of any major river, Flood Hazard Zonation Mapping is required at 1:5000 to 1:10,000 scale indicating the peak and lean river discharge as well as flood occurrence frequency.
46. A note on treatment of wastewater from different plants, recycle and reuse for different purposes should be included.
47. Provision of traps and treatment plants are to be made, if water is getting mixed with oil, grease and cleaning agents.
48. If the water is mixed with solid particulates, proposal for sediment pond before further transport should be included. The sediment pond capacity should be 100 times the transport capacity.
49. Wastewater characteristics (heavy metals, anions and cations, trace metals, PAH) from any other source should be included.
50. The pathways for pollution via seepages, evaporation, residual remains are to be studied for surface water (drainage, rivers, ponds, lakes), sub-surface and ground water with a monitoring and management plans.
51. Ground water monitoring minimum at 8 locations and near solid waste dump zone, Geological features and Geo-hydrological status of the study area are essential as also. Ecological status (Terrestrial and Aquatic) is vital.
52. Action plan for solid/hazardous waste generation, storage, utilization and disposal particularly slag from all the sources, char and fly ash. Copies of MOU regarding utilization of ash should also be included.
53. Details of evacuation of ash, details regarding ash pond impermeability and whether it would be lined, if so details of the lining etc. needs to be addressed.
54. A note on the treatment, storage and disposal of all type of slag should be included.
55. End use of solid waste and its composition should be covered. Toxic metal content in the waste material and its composition should also be incorporated particularly of slag.

- ve to be on top of a stable liner to avoid leaching of water.
- green belt development plan in 33 % area i.e. land with not less than 1,500 trees per ha. giving details of species, width of plantation, planning schedule etc. should be included. The green belt should be around the project boundary and a scheme for greening of the travelling roads should also be incorporated. All rooftops/terraces should have some green cover.
58. Detailed description of the flora and fauna (terrestrial and aquatic) should be given with special reference to rare, endemic and endangered species.
  59. Disaster Management Plan including risk assessment and damage control needs to be addressed and included.
  60. Details regarding expected Occupational & Safety Hazards. Protective measures for Occupational Safety & Health hazards so that such exposure can be kept within permissible exposure level so as to protect health of workers. Health of the workers with special reference to Occupational Health. Plan of exposure specific health status evaluation of workers; pre placement and periodical health status of workers; plan of evaluation of health of workers by pre designed format, chest x ray, Audiometry, Spirometry Vision testing (Far & Near vision, colour vision and any other ocular defect) ECG, during pre placement and periodical examinations and plan of monthly and yearly report of the health status of workers with special reference to Occupational Health and Safety.
  61. Corporate Environment Policy
    - i. Does the company have a well laid down Environment Policy approved by its Board of Directors? If so, it may be detailed in the EIA report.
    - ii. Does the Environment Policy prescribe for standard operating process / procedures to bring into focus any infringement / deviation / violation of the environmental or forest norms / conditions? If so, it may be detailed in the EIA.
    - iii. What is the hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the environmental clearance conditions? Details of this system may be given.
    - iv. Does the company have system of reporting of non compliances / violations of environmental norms to the Board of Directors of the company and / or shareholders or stakeholders at large? This reporting mechanism should be detailed in the EIA report.
  62. At least 5 % of the total cost of the project should be earmarked towards the Enterprise Social Commitment based on Public Hearing issues and item-wise details along with time bound action plan should be prepared and incorporated.
  63. Total capital cost and recurring cost/annum for environmental pollution control measures.
  64. Public hearing issues raised and commitments made by the project proponent on the same should be included separately in EIA/EMP Report in the form of tabular chart with financial budget for complying with the commitments made.
  65. Any litigation pending against the project and / or any direction / order passed by any Court of Law against the project, if so, details thereof.

The following general points should be noted:



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

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

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

7.5.29 E.C. for Proposed Captive Power Plant of 4 MW utilizing waste heat from existing 2\*100 TPD DRI and 4MW from AFBC Boiler at Village Nawagaon, District West Singhbhum, Jharkhand **by M/s Sai Sponge (India) Ltd. – regarding TORs.**

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

7.5.30 EC for the expansion of the existing RE-rolled Steel Product Unit (Under Construction) and Proposed Ferro Alloys Plant/Pig Iron Plant Unit Located in the Urla Industrial area, Urla, District Raipur, Chhattisgarh by **M/s Shri Siddhi Vinayak Dhatu Udyog Pvt. Ltd- regarding TORs.**

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

7.5.31 EC for proposed Ferro Alloys Manufacturing Unit at Ikra, District Bankura, West Bengal for the Production of Ferro Maganese-35175 MTPA, Silico Manganese-23450 MTPA, Ferro Silicon-11585 MTPA by **M/s Shree PSP Ferro Alloys Pvt. Ltd.- regarding TORs.**

did not attend the meeting. The Committee decided when requested by the proponent.

- 7.5.32 Agrochemical manufacturing project (4000 MT/Year) at Plot No. Z-12/1 (SEZ-Part-1), Survey No. : 402/p, 407/p, 486/p, 487/p, 488, 489, 490, 491, 492/p, Dahej SEZ Bharuch, Gujarat by **M/s Indofil Industries Limited - regarding TORs.**

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

- 7.5.33 EC for proposed 45 KLPD molasses based distillery and 18 MW co-generation power plant at village mangrul, District Yavatmal Maharashtra by **M/s Deccan Sugar Pvt. Ltd. – regarding. TORs.**

The project proponent has requested to consider the proposal in the next EAC meeting. The Committee decided to consider the proposal in the next EAC meeting.

- 7.5.34 Proposed sponge iron Production Unit at village haraginadoni, Distt, Bellary, Karnataka by **M/s Sri Subramanya Sponge Iron Pvt. Ltd. – regarding. TORs.**

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

- 7.5.35 Proposed expansion of Integrated Steel Plant from 5 to 10 MTPA at Geethapuram, Raigad district, Maharashtra by **M/s JSW Ispat Steel Limited – regarding. TORs.**

The project authorities along with their consultant (M/s Mecon Limited, Ranchi) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken along with the draft Terms of Reference for preparation of EIA/EMP report. The steel plants are listed at S.No. 3(a) in primary metallurgical industry under Category A of the Schedule of EIA notification 2006 and appraised by the Expert Appraisal Committee (Industry) of MoEF.

M/s JSW Ispat Steel Limited have proposed for expand their Integrated Steel Plant from 5 to 10 MTPA and power plant from 300 to 600 MW(Gas Based) at Geethapuram, Village Dolvi, Tehsil Pen, District Raigarh in Maharashtra. The existing plant got environmental clearance from MoEF vide letter no. J-11011/166/2011 . IA.II(I) on 21.11.2012. The total land requirement for the expansion is 600 acres. No Forest land is involved. No national park/wild life sanctuary/ecologically sensitive area is located within 10 km radius. The amba river and bhogeshwar river is located at a distance of 0.8 km and 7.8km respectively from the project site. Four reserve forests exists in 10 Km radius of the project site [RF near Kharkhara village (1- km, E), RF near Katkariwadi village (5.3- km, NE), RF near Turmal village (4.6-km, E) and RF near Katvira village (5.1- km, SW)]. Total cost of the project is Rs. 17000 Crores. Rs. 750 crores is earmarked as a capital cost towards the pollution control measures.

ed facilities and its production capacities are as

Sl. No.	Technological facility	Units/Facilities (EC accorded) under 5 MTPA	Proposed facilities under 5 to 10 MTPA	Total Plant Capacity at 10 MTPA
1.	DRI(Gas based Mega Module)	2.0 MTPA ( by augmentation)	2.0 MTPA	4.0 MTPA
2.	Pellet Plant	4.0 MTPA	4.0 MTPA	8.0 MTPA
3.	Coke Ovens with COBPs	2.0 MTPA	2.5 MTPA	4.5 MTPA
4.	Sinter Plant	2.8 +3.2 MTPA	8.0 MTPA	14.0 MTPA
5.	Blast Furnace including Pig casting	2.0 + 1.6 MTPA	4.5 MTPA	8.1 MTPA
6.	SMS (CONARC)	5.2 MTPA (by augmenting CONARC)	-	5.2 MTPA
7.	SMS . BOF	-	6.0 MTPA	6.0 MTPA
8.	Ladle Furnace	2x200t+205 t	2x 300 t	2x200t+205 t 2x300 t
9.	VD/VOD & RH-TP	1x200t+1x205t	2x300 t	1x200t+1x205t 2x300 t
10	CSP (HRC Coil) Thin Caster-Cum-Hot Strip Finishing Train	3.5 MTPA (by augmenting)	-	3.5 MTPA
11	Conventional Slab Caster	2 x 1 MTPA strand	2 x 2 strand	Total 6 strands (6 MTPA)
12	Billet caster	-	1 x 6 Strand	6 strands (1.5 MTPA)
13	Plate mill	1.5 MTPA	-	1.5 MTPA
14	Galvanizing line (cold rolled steel strips, hot dip zinc coated full hard)	0.6 MTPA	-	0.6 MTPA
15	Electrical steel CRGO line	0.4 MTPA	-	0.4 MTPA
16	Tin plate line	0.4 MTPA	-	0.4 MTPA
17	Color coating	0.5 MTPA	-	0.5 MTPA

		Existing Facilities (accorded) for 5 MTPA	Proposed facilities under 5 to 10 MTPA	Total Plant Capacity at 10 MTPA
	plant			
18	Lime & Dolo plant	1800 TPD	1800 TPD	3600 TPD
19	Oxygen plant	4100 TPD	3500 TPD	7600 TPD
20	Captive power plant (Gas based)	300 MW	300 MW	600 MW
21	Hot rolling mill with shearing & slitting line	-	5.0 MTPA	5.0 MTPA
22	Bar mill	-	1.4 MTPA	1.4 MTPA
23	Slag & clinker grinding unit	-	10.0 MTPA	10.0 MTPA
24	CRM (hot rolled skin pass + cold rolled full hard coil + hot rolled pickled & oiled coil)	1.0 MTPA	1.5 MTPA	2.5 MTPA
25	Township	-	150 acres	150 acres

**Product Mix:**

S. NO.	Item	Quantity, t/yr
<b><u>Main Products</u></b>		
1	HR Coils / CR Products including Slabs /Plates (Flats)	8,350,000
2	Bars (Longs)	1,200,000
Total		9,550,000
<b><u>Others</u></b>		
1	Captive Power from surplus waste gases of steel plant	600 MW
2	Cement	9,000,000

dolomite, quartzite etc are the raw materials that will  
is 33480 KLD will be sourced from Nagothane dam  
ement is 300 MW which will be met from CPP.

The Committee noted that baseline data collected during winter season (2012-2013) will be used for the EIA/EMP report preparation.

The fugitive emissions in the material handling area will be controlled by adopting covered storage for coal, Iron ore & fluxes, Dust suppression systems (chemical and dry fog type), Water sprinklers, Dust Extraction systems with bag filters in case of Crusher / Screen house and lime handling. ESP and bag filters will be provided. Stack of adequate height will be installed. The water conservation schemes envisaged in the project are: Coke dry quenching, dry gas cleaning in SMS, treated waste water from coke oven by-products plant and blow down water will be used for slag granulation & cooling and rainwater harvesting from building roof top will be provided. The slag generated from iron and steel making will be used for cement manufacture. The DRI fines and dust will be used in the sinter plants.

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

1. Executive summary of the project
2. Iron ore/Coal linkage documents
3. Photographs of the existing and proposed plant area
4. Compliance to the conditions stipulated in the Environmental Clearance / NOC granted by the SPCB.
5. A certified copy of the report of the status of compliance of the conditions stipulated in the environmental clearance and Consent to Operate for the ongoing / existing operation of the project by the Regional Office of the Ministry of Environment and Forests and SPCB.
6. Recent monitoring report from SPCB, which shall include data on AAQ, water quality, solid waste etc. shall be submitted.
7. Has the unit received any notice under the Section 5 of Environment (Protection) Act, 1986 or relevant Sections of Air and Water Acts? If so, compliance to the notice(s)
8. A line diagram/flow sheet for the process and EMP
9. The earlier questionnaire for industry sector should be submitted while submitting EIA/EMP.
10. A copy of the mutual agreement for land acquisition signed with land oustees.
11. A site location map on Indian map of 1:10, 00,000 scale followed by 1:50,000/1:25,000 scale on an A3/A2 sheet with at least next 10 Kms of terrains i.e. circle of 10 kms and further 10 kms on A3/A2 sheets with proper longitude/latitude/heights with min. 100/200 m. contours should be included. 3-D view i.e. DEM (Digital Elevation Model) for the area in 10 km radius from the proposal site. A photograph of the site should also be included.
12. Present land use should be prepared based on satellite imagery. High-resolution satellite image data having 1m-5m spatial resolution like quickbird, Ikonos, IRS P-6 pan sharpened etc. for the 10 Km radius area from proposed site. The same should be used for land used/land-cover mapping of the area.
13. Topography of the area should be given clearly indicating whether the site requires any filling. If so, details of filling, quantity of fill material required, its source, transportation etc. should be given.



- arks/wildlife sanctuary/reserve forests within 10 km. locally be mentioned. A map showing land use/land uses, wildlife sanctuaries, national parks, tiger reserve etc in 10 km of the project site.
15. Project site layout plan to scale using AutoCAD showing raw materials, fly ash and other storage plans, bore well or water storage, aquifers (within 1 km.) dumping, waste disposal, green areas, water bodies, rivers/drainage passing through the project site should be included.
  16. Coordinates of the plant site as well as ash pond with topo sheet coordinates of the plant site as well as ash pond with topo sheet should also be included.
  17. Details and classification of total land (identified and acquired) should be included.
  18. Rehabilitation & Resettlement (R & R) should be as per policy of the State Govt. and a detailed action plan should be included.
  19. Permission from the tribals, if tribal land has also to be acquired along with details of the compensation plan.
  20. Permission and approval for the use of forest land, if any, and recommendations of the State Forest Department. .
  21. A list of industries containing name and type in 25 km radius should be incorporated.
  22. Residential colony should be located in upwind direction.
  23. List of raw material required, analysis of all the raw materials and source along with mode of transportation should be included. All the trucks for raw material and finished product transportation must be %environmentally Compliant+.
  24. Petrological and Chemical analysis and other chemical properties of raw materials used (with GPS location of source of raw material) i.e. ores, minerals, rock, soil, coal, iron, dolomite quartz etc. using high definition and precision instruments mentioning their detection range and methodology such Digital Analyzers, AAS with Graphite furnace, ICPMS, MICRO-WDXRF, EPMA, XRD, Nano studies or at least as per I30-10500 and WHO norms. These analysis should include trace element and metal studies like Cr (vi) Ni, Fe, As, Pb, Zn, Hg, Se, S etc. Presence of radioactive elements (U, Th etc.), if applicable, should also be included..
  25. Petrography, grain size analysis and Major element analysis of raw material and soil from project site and raw material should be done on the same parameters along with analysis for SiO<sub>2</sub>, Al<sub>2</sub>O<sub>3</sub>, MgO, MnO, K<sub>2</sub>O, CaO, FeO, Fe<sub>2</sub>O<sub>3</sub>, P<sub>2</sub>O<sub>5</sub>, H<sub>2</sub>O, CO<sub>2</sub>.
  26. If the rocks, ores, raw material has trace elements their petrography, ore microscopy, XRD, elemental mapping EPMA, XRF is required to quantify the amount present in it and hence future risk involved while using it and management plan.
  27. Action plan for excavation and muck disposal during construction phase.
  28. Studies for fly ash, muck, slurry, sludge material disposal and solid waste generated, if the raw materials used has trace elements and a management plan should also be included.
  29. Manufacturing process details for all the plants should be included.
  30. Mass balance for the raw material and products should be included.
  31. Energy balance data for all the components of steel plant including proposed power plant should be incorporated.
  32. Site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall should be collected.

the last three years i.e. air, water, raw material  
sis (major, trace and heavy metals), ground water  
, flood hazard history etc.

34. One season site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall and AAQ data (except monsoon) should be collected. The monitoring stations should take into account the pre-dominant wind direction, population zone and sensitive receptors including reserved forests.
35. Ambient air quality at 8 locations within the study area of 10 km., aerial coverage from project site with one AAQMS in downwind direction should be carried out.
36. The suspended particulate matter present in the ambient air must be analyzed for the presence of poly-aromatic hydrocarbons (PAH), i.e. Benzene soluble fraction. Chemical characterization of RSPM and incorporating of RSPM data.
37. Determination of atmospheric inversion level at the project site and assessment of ground level concentration of pollutants from the stack emission based on site-specific meteorological features.
38. Air quality modelling for steel plant for specific pollutants needs to be done. APCS for the control of emissions from the kiln and WHRB should also be included to control emissions within 50 mg/Nm<sup>3</sup>.
39. Action plan to follow National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16<sup>th</sup> November, 2009 should be included.
40. Ambient air quality monitoring modelling along with cumulative impact should be included for the day (24 hrs) for maximum GLC along with following :
  - i. Emissions (g/second) with and without the air pollution control measures
  - ii. Meteorological inputs (wind speed, m/s), wind direction, ambient air temperature, cloud cover, relative humidity & mixing height) on hourly basis
  - iii. Model input options for terrain, plume rise, deposition etc.
  - iv. Print-out of model input and output on hourly and daily average basis
  - v. A graph of daily averaged concentration (MGLC scenario) with downwind distance at every 500 m interval covering the exact location of GLC.
  - vi. Details of air pollution control methods used with percentage efficiency that are used for emission rate estimation with respect to each pollutant
  - vii. Applicable air quality standards as per LULC covered in the study area and % contribution of the proposed plant to the applicable Air quality standard. In case of expansion project, the contribution should be inclusive of both existing and expanded capacity.
  - viii. No. I-VII are to be repeated for fugitive emissions and any other source type relevant and used for industry
  - ix. Graphs of monthly average daily concentration with down-wind distance
  - x. Specify when and where the ambient air quality standards are exceeded either due to the proposed plant alone or when the plant contribution is added to the background air quality.
  - xi. Fugitive dust protection or dust reduction technology for workers within 30 m of the plant active areas.

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

- Characteristics (heavy metals, anions and cations, trace elements) by other source should be included.
- Contamination via seepages, evaporation, residual remains are to be studied for surface water (drainage, rivers, ponds, and lakes), sub-surface and ground water with a monitoring and management plans.
60. Ground water monitoring minimum at 8 locations and near solid waste dump zone, Geological features and Geo-hydrological status of the study area are essential as also. Ecological status (Terrestrial and Aquatic) is vital.
  61. Action plan for solid/hazardous waste generation, storage, utilization and disposal particularly slag from all the sources, char and fly ash. Copies of MOU regarding utilization of ash should also be included.
  62. Details of evacuation of ash, details regarding ash pond impermeability and whether it would be lined, if so details of the lining etc. need to be addressed.
  63. A note on the treatment, storage and disposal of all type of slag should be included. Identification and details of land to be used for SMS slag disposal should be included. Details of secured land fill as per CPCB guidelines should also be included.
  64. End use of solid waste and its composition should be covered. Toxic metal content in the waste material and its composition should also be incorporated particularly of slag.
  65. All stock piles will have to be on top of a stable liner to avoid leaching of materials to ground water.
  66. Action plan for the green belt development plan in 33 % area i.e. land with not less than 1,500 trees per ha. Giving details of species, width of plantation, planning schedule etc. should be included. The green belt should be around the project boundary and a scheme for greening of the travelling roads should also be incorporated. All rooftops/terraces should have some green cover.
  67. Detailed description of the flora and fauna (terrestrial and aquatic) should be given with special reference to rare, endemic and endangered species.
  68. Disaster Management Plan including risk assessment and damage control needs to be addressed and included.
  69. Occupational health:
    - a. Details of existing Occupational & Safety Hazards. What are the exposure levels of above mentioned hazards and whether they are within Permissible Exposure level (PEL). If these are not within PEL, what measures the company has adopted to keep them within PEL so that health of the workers can be preserved,
    - b. Details of exposure specific health status evaluation of worker. If the workers health is being evaluated by pre designed format, chest x rays, Audiometry, Spirometry, Vision testing (Far & Near vision, colour vision and any other ocular defect) ECG, during pre placement and periodical examinations give the details of the same. Details regarding last month analyzed data of abovementioned parameters as per age, sex, duration of exposure and department wise.
    - c. Annual report of health status of workers with special reference to Occupational Health and Safety.
    - d. Action plan for the implementation of OHS standards as per OSHAS/USEPA.
    - e. Plan and fund allocation to ensure the occupational health & safety of all contract and sub-contract workers.
  70. Corporate Environment Policy

- any have a well laid down Environment Policy Board of Directors? If so, it may be detailed in the EIA
- ii. Does the Environment Policy prescribe for standard operating process / procedures to bring into focus any infringement / deviation / violation of the environmental or forest norms / conditions? If so, it may be detailed in the EIA.
  - iii. What is the hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the environmental clearance conditions? Details of this system may be given.
  - iv. Does the company have system of reporting of non compliances / violations of environmental norms to the Board of Directors of the company and / or shareholders or stakeholders at large? This reporting mechanism should be detailed in the EIA report.
71. Details regarding infrastructure facilities such as sanitation, fuel, restroom etc. to be provided to the labour force during construction as well as to the casual workers including truck drivers during operation phase.
  72. Impact of the project on local infrastructure of the area such as road network and whether any additional infrastructure needs to be constructed and the agency responsible for the same with time frame.
  73. Environment Management Plan (EMP) to mitigate the adverse impacts due to the project along with item wise cost of its implementation. Total capital cost and recurring cost/annum for environmental pollution control measures should be included.
  74. Plan for the implementation of the recommendations made for the steel plants in the CREP guidelines must be prepared.
  75. At least 5 % of the total cost of the project should be earmarked towards the Enterprise Social Commitment based on public hearing issues and item-wise details along with time bound action plan should be included. Socio-economic development activities need to be elaborated upon.
  76. Public hearing issues raised and commitments made by the project proponent on the same should be included separately in EIA/EMP Report in the form of tabular chart.
  77. A note on identification and implementation of Carbon Credit project should be included.
  78. Any litigation pending against the project and/or any direction/order passed by any Court of Law against the project, if so, details thereof should also be included.

The following general points should be noted:

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



II (I) dated 4<sup>th</sup> August, 2009, which are available on Ministry should also be followed.

involved in the preparation of EIA/EMP report after accreditation with Quality Council of India (QCI) / National Accreditation Board of Education and Training (NABET) would need to include a certificate in this regard in the EIA/EMP reports prepared by them and data provided by other organization/Laboratories including their status of approvals etc.

It was decided that TORs prescribed by the Expert Appraisal Committee (Industry) should be considered for preparation of EIA / EMP report for the above mentioned project in addition to all the relevant information as per the Generic Structure of EIA given in Appendix III and IIIA in the EIA Notification, 2006. Where the documents provided are in a language other than English, an English translation should be provided. The draft EIA/EMP report shall be submitted to the Maharashtra Pollution Control Board for public hearing. The issues emerged and response to the issues shall be incorporated in the EIA report. The final EIA report shall be submitted to the Ministry for obtaining environmental clearance.

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

#### 7.5.36 Expansion of Steel Manufacturing Unit at Village Ajnali, Opp. Focal Point, Mandi Gobindgarh, District Fatehgarh Sahib, Punjab by **M/s Bhawani Industries Limited- regarding Environmental Clearance**

The aforesaid proposal was considered by the Reconstituted Expert Appraisal Committee (Industry) in its 3<sup>rd</sup> meeting held during 3-5<sup>th</sup> December, 2012. The Committee noted that the consultant (M/s CPTL Enviro Tech, Chandigarh) prepared the EIA report is not accredited by QCI/NABET and deferred the proposal. Thereafter, the proponent submitted the revalidated EIA report by the M/s Envirotech India Consortium, Chandigarh. It may be noted that M/s Envirotech India Consortium, Chandigarh is also not accredited by the QCI/NABET. However, proponent has submitted an order of Hon'ble High Court of Chandigarh staying the applicability of QCI accreditation to the instant consultant.

The Committee deferred the consideration of the proposal as the members of the EAC have not received the EIA/EMP report from the proponent. Further, the Committee asked the M/s Envirotech India Consortium, Chandigarh to conduct fresh AAQ data/water quality data collection for at least a week period to verify the baseline data collected by the M/s CPTL Enviro Tech, Chandigarh.

#### 7.6.0 **Reconsideration**

##### 7.6.1 Environmental Clearance for proposed integrated steel plant (0.4 MTPA capacity) with 43 MW captive power plant at village-Paraghat and Beltukri, Tehsil-Masturi, District-Bilaspur in Chhattisgarh by **M/s Rashi Steel and Power Limited (Formerly M/s. Rashi Strips Private Limited). Regarding reconsideration for grant of Environment Clearance.**

The project authorities along with their consultant M/s Grass Roots Research and Creation India Private Limited, Noida gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be

Reference (ToRs) awarded during the 15<sup>th</sup> meeting e (Industry- 1) held during 25-27<sup>th</sup> October, 2010 for The ToR was awarded on 16<sup>th</sup> November, 2010 for preparation of EIA/EMP report. All the Steel Plants are listed at S.No. 3(a) under Primary Metallurgical Industries under %Category A+ of the Schedule of EIA Notification 2006 and appraised at the Central level.

M/s Rashi Steel and Power Limited (Formerly M/s. Rashi Strips Private Limited) have originally proposed to set up Integrated Steel Plant (1.0 MTPA Capacity) with 200 MW Captive Power Plant at Villages Paraghat and Beltukri, Tehsil Masturi, District Bilaspur in Chhattisgarh. The proposal was considered in the 1<sup>st</sup> meeting of the Reconstituted Expert Appraisal Committee held during 24-25<sup>th</sup> September, 2012 for the grant of Environmental Clearance. The committee noted that the coal linkage is not available which is required for the Steel Plant. The information regarding water requirement, solid waste management etc. is incomplete. The Committee noted that proposal is premature and is deferred for consideration after submission of the revised complete EIA/EMP report and coal linkage documents etc.

Thereafter, the proponent has submitted the revised EIA/EMP report to the Ministry on 21.1.2013. The Committee noted that due to the considerable delay in getting firm coal linkage for indigenous coal, M/s Rashi Steel and Power Limited (Formerly M/s. Rashi Strips Private Limited) desired to reduce plant capacity and proposed to set up a green-field integrated steel plant based on imported coal having capacity of 0.4 MTPA Hot DRI plant with Ductile Iron Spun Pipe Plant with 43 MW CPP at Village Paraghat and Beltukri, Tehsil - Masturi, District . Bilaspur, Chhattisgarh. The land requirement for the project is 199 acres. Out of the 199 acres, the proponent has acquired 64.81 acres and remaining land is under process of acquisition. 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. The Lilaghar river is located at a distance of 400 m from the project site. Total cost of the project is Rs.540 crores. Rs.2200 lakhs and Rs. 215 lakhs is earmarked for capital cost and recurring cost per annum towards the environmental pollution control measures. Rs.27crores is earmarked for the implementation of CSR activities. The revised plant configuration details are as below:

S.No.	Plant Configuration Details	Unit Capacity (MTPA)
1.	Beneficiation of iron Ore	1.9
2.	Pelletization of iron Ore	1.324
3.	Coal Washery	0.35
4.	DRI plant - Rotary Hearth Furnace	0.4
5.	Submerged Arc Furnace	0.243
6.	Ductile Pipe Plant	0.3
7.	Captive Power Plant	43 MW

The raw materials required are Imported Coal (5,00,000 TPA) which will be supplied by M/s M/s ARCTOS Trading (PTY) Limited, Ogies, Witbank, Mpumalanga,

h by ship up to Vishakhapatnam port from South am nagar Railway Station and then to the plant site effect, the proponent submitted the MoU made between M/s Rashi Steel and Power Limited and M/s Arctos Trading (PTY) Limited. As per the MoU submitted to the Ministry, the ash and sulphur content in the coal will be 16-18% and 0.6-0.8% respectively. The iron ore requirement is 19,00,000 TPA which will be sourced from NMDC Jagdalpur/ Beladula & Berbil / Keonjhar area of Orissa by Rail transport. The other raw materials required are lime stone (52,300 TPA), Dolomite (15000 TPA) which will be sourced from Chhattisgarh and Odisha and transported to the plant site by road. The Mn Ore (7000 TPA) will be sourced from Moil-Nagpur and transported to the plant site by road. The power requirement will be 46 MW (43 MW will be produced by the coal based captive power plant and shortfall of 3 MW to be met from state grid of Chhattisgarh electricity board.

Ambient air quality monitoring has been carried out at 8 locations during December 2010 to February 2011 and the data submitted indicated: PM<sub>10</sub> (67.1-98 µg/m<sup>3</sup>), PM<sub>2.5</sub> (23.2-39.0 µg/m<sup>3</sup>), SO<sub>2</sub> (5-11 µg/m<sup>3</sup>) and NO<sub>x</sub> (11.1-29.0 µg/m<sup>3</sup>). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs would be 4.8 µg/m<sup>3</sup>, 5.8 µg/m<sup>3</sup> and 3.1 µg/m<sup>3</sup> with respect to PM<sub>10</sub>, SO<sub>2</sub> and NO<sub>x</sub> respectively. Dust suppression and de-dusting system comprised of bag filters will be provided at the Raw Material Handling Area, Material Transfer Points to capture and control fugitive emission. Stack of adequate height will be provided. Dust suppression system will be provided at Coal Washery and Iron Ore Beneficiation Plant. A fume collection system is proposed at Ductile Iron Spun Pipe (DISP) Plant to protect work zone. A fume collection hood and a suitable duct will also be provided. To control the air emission, ESP will be provided in the CPP. Limestone dosing along with coal feed is proposed to control SO<sub>2</sub> emission in the CPP.

The water requirement is 7500 m<sup>3</sup>/day i.e 2.8 MCM which will be sourced from Ground & Surface Water. The surface water of 12 MCM/year will be sourced from Lilaghar river. For this purpose, the proponent has obtained permission from Department of Water Resource, Chhattisgarh vide letter no. 207/ka/D-8 dated 29.08.2012. For the withdrawal of ground water of 0.826 MCM/year, permission has been obtained from Central Ground Water Authority vide letter No. 21-4(109)/NCCR/CGWA/2011-1558 dated 20.10.2011. A total wastewater generation is 26.5 m<sup>3</sup>/day. After adequate treatment, this effluent will be used for gardening and dust suppression at road and material handling areas. No liquid effluent will be discharged outside the plant premises.

The rejects from the coal washery is about 18000 TPA. This will be blended with 20 % of imported raw coal. Then the mix will be recycled to captive power plant of 1x43 MW for feeding. Dust collected from all dust collecting system consists of iron ore fines will be sent back to the raw pellet mix. The fly ash generation from the power plant is 26,000 TPA which will be sold to the brick manufacturer.

After detailed deliberations, the Committee sought following additional information from the proponent for reconsideration:

- i. Revised layout plan without disturbing natural drainage (nallah)
- ii. Flood hazard zonation map
- iii. Coal linkage documents on non-judicial stamp paper
- iv. Land acquisition documents
- v. Exact distance of plant site from High Flood Level of Lilaghar river

f incoming raw materials and outgoing finished

7.6.2 Cement Grinding Unit (4.0 MTPA) under Ash utilization Plant within the premises of 3x660 MW Thermal Power Plant at Village Jodh Khansemra, Tehsil Bara, District Allahabad in U.P. by **M/s Prayagraj Power Generation Company Limited - Regarding reconsideration for grant of Environment Clearance.**

The aforesaid proposal was considered in the 4<sup>th</sup> meeting of the Reconstituted Expert Appraisal Committee held during 8-9<sup>th</sup> January, 2013 for the grant of Environmental Clearance. After detailed deliberations, the Committee sought the following information for reconsideration:

- i. Values of PM<sub>2.5</sub> need to be rechecked as the values reported are low. PM<sub>2.5</sub> parameter shall be monitored for a one month period and the data shall be submitted
- ii. Disaster management plan for the cement grinding unit
- iii. Possible impact on the Reserve Forests area due to the operation of cement grinding unit and power plant

The proponent vide letter dated 26.2.2013 submitted the aforesaid additional information. The Committee noted that PM<sub>2.5</sub> was monitored during 15.1.2013 to 15.2.2013 at 8 locations. The data submitted indicated that PM<sub>2.5</sub> varies between 3.8-16.9 µg/m<sup>3</sup>. The Committee noted that other additional information including the Disaster Management Plan and possible impact on reserved forests are found to be adequate and suggested to stipulate following specific conditions along with other environmental conditions while considering for accord of environmental clearance:

- i. Particulate emissions shall be controlled within 50 mg/Nm<sup>3</sup> by installing adequate air pollution control system viz. Bag filters and stacks of adequate height etc. Data on ambient air, fugitive and stack emissions shall be submitted to the Ministry Regional Office at Lucknow, State Pollution Control Board (SPCB) and CPCB regularly.
- ii. The National Ambient Air Quality Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16<sup>th</sup> November, 2009 should 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 and regularly monitored. Guidelines/Code of Practice issued by the CPCB should be followed.
- iv. The company shall install adequate dust collection and extraction system to control fugitive dust emissions at various transfer points, raw mill handling (unloading, conveying, transporting, stacking), vehicular movement, bagging and packing areas etc. All the raw material stock piles should be covered. A closed clinker stockpile system shall be provided. All conveyers should be covered with GI sheets. Covered sheds for storage of raw materials and fully covered conveyers for transportation of materials shall be provided besides coal, cement, fly ash and clinker shall be stored in silos. Pneumatic system shall be used for fly ash handling.

- roads and water spray all around the stockyard and in the cement plant shall be carried out to control fugitive emissions. Regular water sprinkling shall be carried out in critical areas prone to air pollution and having high levels of SPM and RSPM such as haul road, loading and unloading points, transfer points and other vulnerable areas. It shall be ensured that the ambient air quality parameters conform to the norms prescribed by the Central Pollution Control Board in this regard.
- vi. 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 should not be overloaded. Vehicular emissions should be regularly monitored.
  - vii. Total water requirement shall not exceed 700 m<sup>3</sup>/day. Efforts shall be made to further reduce water consumption by using air cooled condensers. All the treated wastewater should 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 shall be enhanced to meet the maximum water requirement. Only balance water requirement shall be met from other sources.
  - ix. All the bag filter dust, raw meal dust, coal dust, clinker dust and cement dust from pollution control devices should be recycled and reused in the process used for cement manufacturing. Spent oil and batteries should be sold to authorized recyclers / reprocessors only.
  - x. Green belt shall be developed in at least 33 % area in and around the cement plant as per the CPCB guidelines to mitigate the effects of air emissions in consultation with local DFO.
  - xi. 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 should be prepared and submitted to the Ministry's Regional Office at Lucknow. Implementation of such program should be ensured accordingly in a time bound manner.
  - xii. The company shall provide housing for 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.

#### **7.7.0 Any Other items**

- 7.7.1 Expansion of Cement plant by Installation of new Line II (Clinker 4.0 MTPA, Cement 4.0 MTPA) along with 50 MW Captive power plant (WHRB-15 & DG Set 2\*6 MW) at Hirni Cement Works at Vilage Hirni, Tehsil Simga, District



by **M/s Ultratech Tech Cement Limited.** -  
 e **Subject matter of TOR accorded.**

Terms of Reference (ToR) to the above proposal was accorded by MoEF vide letter no. J-11011/586/2011-IA.II(I) dated 14.2.2012. Subsequently, a Corrigendum was issued by the Ministry on 27.9.2012 regarding change of subject matter of project proposal. The Project Proponent (PP) vide letter dated 18.12.2012 again requested MoEF for the change of subject matter of project proposal keeping capacities same as per the ToR letter but to include the present plant capacity as it is a Brownfield project. The PP along with their consultant (M/s J.M. EnviroNet Private Limited, Gurgaon) also made a presentation before the Committee. The revised Form-1 and Pre-feasibility report were submitted.

It was submitted by the proponent following are the revision in the subject matter proposed by them:

Subject matter as per the Corrigendum dated 27.9.2012	Revision sought in the subject matter
Expansion of Cement Project by installation of new Line II Clinker (2.75 MTPA to 6.75 MTPA), Cement (2.75 MTPA to 6.75 MTPA), CPP (50 MW to 100 MW), DG Set (18 MW to 30 MW) and WHRB - 15 MW+	Expansion of Integrated Cement Project - Cement (2.75 to 6.75 MTPA), Clinker [2.2 to 6.75 MTPA (Line I - 2.2 MTPA to 2.75 MTPA, Proposed Line II - 4.0 MTPA)], CPP (50 MW to 100 MW), DG Set (18 MW to 30 MW) and WHRB . 15 MW+

After detailed deliberations, the Committee recommended for the aforesaid revision in the subject matter.

7.7.2 Proposed integrated steel plant (0.75 MTPA) with 150 MW captive power plant at village kudabaga, P.S. Bhasma, District Sundergarh in Orissa by **M/s Kalinga Steeltech Private Limited - Regarding revision in TOR for change in Product Mix.**

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

7.7.3 Cement grinding plant (6.0 MTPA) at Village Mora, Taluka Chorayshi, District Surat in Gujarat by **M/s ABG Cement Limited - Amendment in Environment Clearance regarding change in Fuel mix.**

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

7.7.4 Expansion of Steel plant and captive power plant along with installation of Iron Ore Beneficiation Plant, Pelletization Plant and Coal Washery at Village Murusuan, District Keonjhar, Orissa by **M/s Brand Alloys Limited- Amendment in Environment Clearance regarding change in configuration of Sponge Iron Unit.**

to the above proposal was accorded by MoEF vide (I) dated 5.3.2012. The Project Proponent (PP) vide MoEF for the amendment in the EC in respect of the configuration of sponge iron plant from 2x175 TPD to 1x350 TPD. The PP also made a presentation before the Committee.

It was submitted by the proponent following are the amendments proposed by them:

Sl. No.	Facilities	Production capacities as per the EC accorded on 5.3.2012			Amendment sought Capacity
		Existing Capacity	Proposed Capacity	Ultimate Capacity	
1.	Coal Washery	-	5,00,000 TPA	5,00,000 TPA	Nil
2.	Iron ore Beneficiation & Pelletisation plant	-	6,00,000 TPA	6,00,000 TPA	Nil
3.	Sponge Iron Plant	60,000 TPA (2x100 TPD DRI Kilns)	1,00,000 TPA (2 X 175 TPD DRI Kilns)	1,60,000 TPA	1,00,000 TPA (1x350 TPD DRI Kilns)
4.	Steel Melt Shop (Induction Furnace)	80,000 TPA (2x12 T)	90,000 TPA (2x15 T)	1,70,000 TPA	Nil
5.	Captive Power Plant	6 MW WHRB	18 MW (7 MW WHRB + 11 MW AFBC)	24 MW	Nil

M/s Brand Alloys Limited submitted that as per the notification no. 6215/8M dated 25.8.2011 of Steel and Mines Department, Govt. of Odisha, *All proposals for expansion or new projects up to 0.30 million tonnes per annum of steel making may be permitted through the DRI route with a provision that they should go in for a minimum of 350 TPD module capacities of DRI kiln units using State of art energy efficient technology and pollution control measures*. Based on this notification, the Odisha Pollution Control Board vide letter dated 12.10.2012 advised M/s Brand Alloys Limited to amend the configuration of sponge iron unit from 2x175 TPD to 1x350TPD. The proponent submitted that there will be no change in the production capacity, water consumption, air emissions and solid waste generation due to the proposed change in the configuration of sponge iron unit from 2x175 TPD to 1x350TPD.

After detailed deliberations, the Committee recommended for the amendment in the EC dated 5.3.2012 as referred above subject to the environmental safeguards.

7.7.5 Expansion from 3.0 MTPA to 5.0 MTPA Integrated Steel Plant along with installation of Pellet Plant -4.0 MTPA and 300 MW Captive Power Plant at Geethapuram, Village Dolvi, Tehsil-Pen, District-Rajgarh in Maharashtra by **M/s JSW Ispat Steel Limited (formerly M/s Ispat Industries Limited)-Regarding transfer of Environment Clearance to M/s Amba river coke Limited in respect of 4.0 MTPA Pellet Plant.**

Environmental clearance vide letter J-11011/166/2011-IA of existing Integrated Steel Plant from 3.0 to 5.0 MTPA and 300 MW Captive Power Plant. Pellet Plant (4.0 MTPA) is a part of the expansion project. The Project Proponent (PP) vide letter No. JSWISL/ENV/MOEF/2012 dated 25.12.2012 requested MoEF to transfer the pellet plant (4.0 MTPA) in the name of M/s. Amba River Coke Limited (ARCL). The PP made a presentation before the Committee.

The proponent submitted that current financial situation of M/s JSW Ispat is not favorable for raising funds. Borrowing money from Financial Institutions is a big hurdle for JSW Ispat. As JSW Steel Limited is a major stake holder of JSW Ispat Steel Limited and holds a very sound financial status, it has been decided that the pellet plant (4 MTPA) will be established by JSW Steel through its 100% subsidiary named M/s Amba River Coke Limited as a SPV. ARCL was incorporated as a company on 5.11.2007 and is currently implementing a 1.0 Coke Oven Plant at Dolvi. The pellets produced by the ARCL will be used in the DRI & Blast Furnaces of JSW Ispat Steel Limited. There will be no change in any of the features of the pellet plant (4 MTPA) including capacity, technology, location, land requirement, fuel and water requirement, pollution load etc.

Additionally, the proponent informed following to the Ministry on the during the presentation held on 5.4.2013:

S.No.	Parameter	As per the EC accorded on 21.11.2012	M/s JSW Ispat Steel Limited	M/s. Amba River Coke Limited
1.	Capacity	5.0 MTPA Integrated Steel Plant along with installation of Pellet Plant -4.0 MTPA and 300 MW Captive Power Plant	5.0 MTPA Integrated Steel Plant along with 300 MW Captive Power Plant	4.0 MTPA Pellet Plant
2.	Land	1200 acres	1177 acres	23 acres
3.	Project cost	Rs.9000 crores	Rs. 8100 crores	Rs.900 crores
4.	EMP Cost	Rs.450 crores	Rs. 382.5 crores	Rs.67.5 crores
5.	Make up water requirement	2450 m <sup>3</sup> /hr	2310 m <sup>3</sup> /hr	140 m <sup>3</sup> /hr
6.	Fuel used	--	Domestic Coking coal and thermal Coal, Coke, Mixing gas and Coke Oven gas	Mixed Gas (Mixture of BF gas and Coke oven gas)
7.	Waste water	--	All the waste water will be recycled and reused and zero discharge will be adopted	No waste water will be generated
8.	Air emission	--	Plant equipment including pollution control measures will be installed to comply with relevant	Plant equipment including pollution control measures will be installed in

		for the EC Recorded on 11.2012	M/s JSW Ispat Steel Limited	M/s. Amba River Coke Limited
			mass-based standards notified by MoEF.	the Pellet Plant to ensure compliance
9.	Green Belt	--	A green Belt shall be developed in the plant as per guidelines over a land area of 1177 Acres.	A green Belt shall be developed in the Pellet Plant as per guidelines over a land area of 23 Acres.
10.	Environment Management Measures	--	All the environmental management measures relevant to the integrated Steel Plant and as given in the EIA/EMP shall be implemented and complied with.	All the environmental management measures given in the EIA/EMP pertaining to Pellet Plant shall be implemented and complied with.
11.	Environmental Quality Monitoring	--	An adequate network of environmental monitoring stations shall be set up and data collected and submitted to MEF, CPCB and MPCB	An adequate network of environmental monitoring stations covering the Integrated Steel Plant shall be set up and data collected and submitted to MOEF, CPCB and MPCB.
12.	Environment Management Department	--	A dedicated environmental Management cell with qualified staff shall be established for the Integrated Steel Plant to carry out various management and monitoring functions shall be setup under the control of a senior executive.	A separate Environmental Management cell to carry out various management and monitoring functions shall be set up under the control of a senior executive

fer, the proponent has submitted the following

- i. Environmental Clearance(EC) dated 21-11-2012 for Expansion of steel Plant from 3 to 5 MTPA
- ii. Board Resolution of JSW Ispat for transfer of EC
- iii. Certificate of incorporation of M/s Amba River Coke Limited
- iv. MOM of Board of Directors of M/s Amba River Coke Limited
- v. Point-wise Compliance Status Report of EC dated 31-12-1996 for 3 MTPA
- vi. Plant Lay out of the Pellet Plant
- vii. Affidavit by ARCL committing to comply with applicable stipulations in the EC
- viii. Affidavit by JSW Ispat committing to comply with applicable stipulations in the EC
- ix. Organizational Chart of Environmental Cell for JSW Ispat
- x. Organizational Chart of Environmental Cell for ARCL
- xi. Statement showing likely changes in project parameters and environmental impacts arising from the proposed transfer

After detailed deliberations, the Committee decided to further reconsider the proposal in the next EAC meeting without calling the project proponent.

**7.7.6 Expansion of Aluminium smelter plant from 0.26 MTPA to 0.72 MTPA and captive power plant from 65. MW to 1650 MW at Village Lapanga, Rengali, C.D. Block, District Sambajpur in Orissa by M/s Aditya Aluminium (a Division of M/s Hindalco Industries Limited)- Amendment in Environment Clearance Condition.**

MoEF has accorded Environmental Clearance(EC) vide letter J-11011/136/2009-IA II(I) dated 29.11.2012 for expansion of Expansion of Aluminium Smelter Plant from 0.26 MTPA to 0.72 MTPA and Captive Power Plant from 650 MW to 1650 MW at Village Lapanga, Rengali, C.D. Block, District Sambalpur in Odisha. The Project Proponent (PP) vide letter No. AAP/E&F/795 dated 8.12.2012 requested MoEF for the amendment in clause no (ix), (xxi), (xxiv) and (xxix) of specific conditions of the EC dated 29.11.2012. The PP made a presentation before the Committee.

The amendment sought by the proponent is summarized as below:

Specific Condition No.	As per the EC accorded on 29.11.2012	Amendment sought
ix	One tri-flue stack of 275m height with flue gas velocity not less than 22 m/s shall be installed and provided with continuous online monitoring equipments for SO <sub>x</sub> , NO <sub>x</sub> and PM <sub>10</sub> .	In the presentation made by the proponent on 14.6.2012, it was mentioned that 4 stacks (slide no page 47) . 3 Nos. tri flue and 1 No. Bi-flue stack of 275 m height for 11 x150 MW CPP. Hence, this condition may be amended accordingly.
xxi.	No effluent shall be discharged outside the premises moef smelter during the non-monsoon period and shall be discharged during the monsoon period only	It appears from the sentence that there is a bonafide typographical error. Hence, the word "moef" may kindly be replaced with "of".



	Recorded on 12	Amendment sought
	after proper treatment and meeting the norms of the OSPCB/CPCB.	
xxiv.	The company shall develop rainwater structures to harvest the runoff water for recharge of ground water in consultation with the Central Ground Water Authority/Board.	<p>The Geohydrological and ground water quality investigations in the water shed of the Aditya Aluminum at Samablpur district has been studied by the National Geophysical Research Institute (NGRI), Hyderabad. They have not recommended not recharging the ground water in the core plant area, the reasons are as follows:</p> <ol style="list-style-type: none"> <li>i. The resistivity inside the plant premises has indicated that the first layer has very high resistivity &gt;150 ohm m with &gt;5 m thickness, and thereby any proposed water harvesting structure may not contribute enhanced ground water recharge</li> <li>ii. Any form of recharging the ground water in the industrial premises is not advisable due to the possibility of ground water contamination.</li> </ol> <p>In view of the above, the proponent has requested for rain water harvesting in township only. This was also presented to the EAC in its meeting held during 14.6.2012.</p>
xxix.	At least 5 % of the total cost of the project shall be earmarked towards the Enterprise Social Commitment and item-wise details along with time bound action plan should be prepared and submitted to the Ministry Regional Office at Bhubaneswar. Implementation of such program should be ensured accordingly in a time bound manner	As the expansion will be carried out in two phases i.e. Aluminium Smelter from 0.26-0.36 MTPA & CPP from 650 MW to 1650 MW in phase I and later up gradation will be made for smelter to 0.72 MTPA and CPP to 1650 MW in phase II. It is requested to follow the decisions/directions of the RPDAC (Rehabilitation and Peripheral Development Advisory Committee) at the district level for any type of commitments as per the CSR. The decision of RPDAC taken in the meeting to be followed and commitments will be planned accordingly instead of earmarking 5% of the total project cost for

	Recorded on 12	Amendment sought
		Enterprise Social Commitment initially.

After detailed deliberations, the Committee decided that specific condition (xxix) of the EC dated 29.11.2012 cannot be amended.

The Committee recommended for the amendment in specific condition no (ix), (xxi) and (xxiv) as mentioned below subject to the environmental safe guards.

**Specific condition (ix):**

Three tri-flue and one bi-flue stack of 275m height with flue gas velocity not less than 22 m/s shall be installed and provided with continuous online monitoring equipments for SO<sub>x</sub>, NO<sub>x</sub> and PM<sub>10</sub>.

**Specific condition (xxi):**

No effluent shall be discharged outside the premises of smelter during the non-monsoon period and shall be discharged during the monsoon period only after proper treatment and meeting the norms of the OSPCB/CPCB.

**Specific condition (xxiv):**

The company shall develop rainwater structures in the township area for recharge of ground water in consultation with the Central Ground Water Authority/Board.

**7.7.7 Expansion of Clinker Production (4.0 MTPA to 4.8 MMTPA) at Khasra No. 59, 64, 70-72, 76-77, 79-80, 660, 662 village Amla, tehsil Pindwara, district Sirohi, Rajasthan by M/s Binani Cement Ltd. – Amendment in Environment Clearance regarding change in fuel mix.**

Environmental Clearance (EC) to the aforesaid proposal was granted by the Ministry vide F.No.J-11011/59/2010-IA.II(I) dated 1.5.2010. The proponent vide letter dated 23.1.2013 requested the Ministry to amend the environmental clearance of Captive Power Plant (70MW) located at Binanigram, Sirohi, Rajasthan for change of fuel mix from Imported Coal: Lignite (65%:35%) to Petcoke: Imported Coal/Lignite (70%:30%). The EC for the 70 MW CPP was granted by the Ministry vide F.No.J-13012/37/2007-IA.II(T) dated 7.6.2007. Thereafter, the proponent vide letter dated 20.2.2013 requested the Ministry to include the petcoke as a fuel in the kiln for manufacture of clinker. The proponent also made a presentation before the Committee.

As per the presentation made by the proponent, the Committee noted that the proponent has combined the 4.8 MMTPA clinker and 70MW CPP for the change of fuel mix. The Committee asked the proponent to approach the EAC . Thermal for the change of fuel mix in respect of the 70MW CPP as the EC for the CPP was accorded by the Thermal sector of the Ministry and considered the proposal only for the change of fuel mix in respect of 4.8 MMTPA clinker.

The amendment sought by the proponent is summarized as below:

		Existing	Proposed
		ported Coal + Pet coke	Imported Coal + Pet coke
2.	Ratio	80% : 20%	65% : 35%
3.	Net CV (Kcal/kg)	Imp. Coal = 5750 Pet coke = 7450	Imp. Coal = 5750 Pet coke = 7450
4.	Fuel Consumption, (MT/month)	40,690	40,247 (443 MT/month fuel saving)

The proponent submitted that there will be no additional land requirement, no change in manufacturing process and production capacity, no additional water requirement due to the proposed change of fuel mix. Due to the proposed change of fuel mix in the clinker plant, there will be no SO<sub>2</sub> emission and no additional wastewater generation. The reasons given by the project proponent for the change of fuel mix are as below:

- i. Less fuel consumption to produce the same amount of energy as pet coke has 25% higher calorific value.
- ii. As pet coke is a waste product from petroleum refinery thereby helps conserving virgin natural resources.
- iii. Corresponding positive impact on air environment from reduced emissions due to lesser number of truck trips for fuel transportation to the plant.
- iv. Low particulate matter and fugitive emission as the ash content in pet coke is negligible (only 1% compared to 17% in imported coal).
- v. No Sulphur-di-oxide (SO<sub>2</sub>) emissions from kiln as limestone is the main component of the kiln feed and sulphur in the fuel (pet coke) gets absorbed in the process.

The air emissions details submitted by the proponent due to the proposed change of fuel mix are as below:

Stack emissions	Existing value	Proposed value
	Clinker Plant	Clinker Plant
Particulate Matter (mg/Nm <sup>3</sup> )	25.91	~24.0*
Dust load (kg/Hr.)	57.84	~55.0*
Sulphur-di-oxide (mg/m <sup>3</sup> )	Nil#	Nil#

\* Due to less ash content in petcoke

# As limestone is the main component of the kiln feed thus sulphur in the fuel (petcoke) gets completely absorbed in the process

After detailed deliberations, the Committee recommended for the amendment in the EC dated 1.5.2010 as referred above subject to the environmental safeguards.

7.7.8 Sponge Iron Plant and co-generation power plant (CP) at S.R. Kannadigai, Gummidipoondi, Thiruvallur, Tamil Nadu by **M/s Kanishk Steel Industries Ltd. – Amendment in Environment Clearance regarding change in kiln configuration**

did not attend the meeting. The Committee decided when requested by the proponent.

**7.7.9 Request for Extension of validity of our Environmental Clearance granted for our Cement (Clinker) Plant (0.75 MTPA) at Jamunanagar, Umrangshu, North Cachar Hills, Assam by M/s Calcom Cement India Ltd. . Regarding extension of Validity of Environment Clearance.**

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

**7.7.10 Expansion of Salem Cement Grinding Unit from 1.0 MTPA to 2.0 MTPA in SF Nos. 121, 123 and 124 Parts in Village Singhipuram, Taluk Valapadi, District Salem in Tamil Nadu by M/s Madras Cements Limited – Amendment in Environmental Clearance regarding**

Environmental Clearance (EC) to the aforesaid proposal was granted by the Ministry vide F.No. J-11011/516/2011-IA.II(I) dated 16.8.2012. The proponent vide letter dated 26.12.2012 requested the Ministry to include the 7 MW DG set details in the EC granted by the Ministry.

The Committee noted that the installation of 7 MW DG set as a standby power was already mentioned in the EIA report as well as in the presentation made before the EAC in its 34<sup>th</sup> meeting held during 29-30<sup>th</sup> March, 2012. However, in the EC granted by the Ministry the 7 MW D.G. set was not included. Further, the Committee noted that Tamil Nadu Pollution Control Board have informed proponent that they will be able to grant CTE only for expansion of cement grinding unit without the standby D.G. set of 7 MW capacity as there is no mention of 7 MW D.G set in the EC granted by the Ministry.

After detailed deliberations, the Committee recommended for the inclusion of 7MW D.G set details in the EC dated 16.8.2012.

**7.7.11 Expansion of integrated cement plant (Clinker from 8.0 MTPA to 10.4 MTPA), Cement 8.8 MTPA, CPP: 180 MW, Waste Heat Recovery Power: 35 MW to 45 MW along with Nimbeti Limestone Mining (750 ha, 14.4 MTPA to 17.2 MTPA) situated near Village Ras, Tehsil Jaitaran, District Pali, Rajasthan by M/s Shree Cement Ltd – Revision in the Environmental Clearance regarding**

Environmental Clearance (EC) to the above proposal was accorded by MoEF vide letter no. J-11011/400/2010-IA.II(I) dated 27.08.2012. The EC granted by the Ministry includes expansion of integrated cement plant as well as the lime stone mining component. The Project Proponent (PP) vide letter dated 11.12.2012 requested MoEF for the revision in the EC in respect of the production capacities.

Following are the revision in the capacities proposed by them:

S.No.	Unit	Production capacities approved as per the EC dated 20.10.2009	Amendment sought in the production capacities	Total production capacity

		<b>Production capacities approved as per the EC dated 20.10.2009</b>	<b>Amendment sought in the production capacities</b>	<b>Total production capacity</b>
<b>1.</b>	<b>Clinker Production (MMTPA)</b>	<b>10.4</b>	<b>0.8</b>	<b>11.2</b>
2.	Cement Production(MMTPA)	8.8	Nil	Nil
3.	Thermal Power Generation (MW)	180	Nil	Nil
<b>4.</b>	<b>Waste heat recovery Power Generation (MW)</b>	<b>45</b>	<b>15</b>	<b>60</b>
<b>5.</b>	<b>Nimbeti Limestone Mining (MMTPA)</b>	<b>17.2</b>	<b>2.4</b>	<b>19.6</b>

The aforesaid proposal was considered in the Reconstituted Expert Appraisal Committee (Industry) in its 5<sup>th</sup> meeting held during 31<sup>st</sup> January, 2013 to 1<sup>st</sup> February, 2013. The Committee recommended that aforesaid revision in the production capacities in the EC accorded on 27.8.2012 cannot be amended as it is a fresh expansion proposal which involves increase in pollution load, increase in resources requirement and increase in project cost to the tune of Rs.331.7 crores.

M/s Shree Cement vide letter dated 18.3.2013 informed the Ministry that the revision in the EC in respect of Limestone mining is under consideration of the EAC . Mining. Further, the proponent has requested the Ministry to amend the EC in respect of clinker production from 10.4 MMTPA to 11.2 MMTPA and waste heat recovery generation from 45 to 60 MW.

The Committee noted that the EAC . Mining has considered the proposal of Limestone mining expansion and prescribed the Terms of Reference (ToR) for undertaking a detailed EIA study.

After detailed deliberations, the Committee recommended that aforesaid revision in the production capacities in the EC accorded on 27.8.2012 cannot be amended as it is an expansion proposal. M/s Shree Cement shall submit a fresh application in accordance with procedure stipulated in the EIA Notification, 2006 for the proposed expansion of clinker production and waste heat recovery power generation.

#### 7.7.12 Proposed Integrated Steel Plant and Captive Power Plant (100 MW) at Villages Dagori, Ameri Akberi and Udgaon, Tehsil Bilha, District Bilaspur, Chhattisgarh by **M/s Jayaswal Neco Industries Limited**

The aforesaid proposal was considered in the Reconstituted Expert Appraisal Committee (Industry) in its 3<sup>rd</sup> meeting held during 3-5<sup>th</sup> December, 2012 and further reconsidered in the 5<sup>th</sup> REAC meeting held during 31<sup>st</sup> January, 2013 to 1<sup>st</sup> February, 2013. REAC recommended the project for grant of Environmental Clearance. However, in the minutes of the EAC meeting, the coal linkage details have not been explicitly mentioned.





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that the proponent has submitted the coal linkage of Gare IV/8 mines to them by the Ministry of Coal vide F.No.13016/34/2005-CA-I dated 13.1.2006. Environmental Clearance to the Gare IV/8 mines was accorded by the Ministry vide letter no. J-11015/352/2006-IA.II (M) on 22.12.2008. The stage II forestry clearance for the block was granted by the Ministry vide letter no. 8-75-2007-FC on 1.1.2013. Further, the Committee noted that the block is meant for captive use in their sponge iron plant and power plant at Siltara, Raipur, Chhattisgarh. Since, the State Government has prohibited establishment of any coal based plant in Raipur, the proponent have proposed to set up sponge iron plant and 100 MW CPP at Bilaspur in Chhattisgarh. To this effect, the proponent has submitted an application to the Ministry of Coal on 21.1.2013 for change in location of the plant i.e from Raipur to Bilaspur in Chhattisgarh.

After detailed deliberations, the Committee recommended the project for grant of environmental clearance subject to the environmental safeguards.

**LIST OF PARTICIPANTS**

Industry) :			
1.	Shri M. Raman	Chairman	P
2.	Shri R.K. Garg	Vice-Chairman	P
3.	Prof. R.C. Gupta	Member	P
4.	Dr. Prem Shankar Dubey	Member	P
5.	Dr. R.M. Mathur	Member	P
6.	Dr. S. K. Dave	Member	P
7.	Dr. B.Sengupta	Member	P
8.	Shri Rajat Roy Choudhary	Member	A
9.	Dr. S.D. Attri	Member	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. V.P.Upadhyay	Member Secretary	
14.	Shri A.N. Singh	Scientist £q	
15.	Shri Sundar Ramanathan	Scientist £q	

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