

Minutes

The Minutes of the 113th Meeting of the Expert Appraisal Committee for Building Construction, Coastal Regulation Zone, Infrastructure Development and Miscellaneous projects held on 4th – 5th June, 2012 at SCOPE Complex, New Delhi.

1. Opening Remarks of the Chairman.

The Chairman welcomed the members to the 113th meeting of the Expert Appraisal Committee.

2. Confirmation of the Minutes of the 112th Meeting of the EAC held on 10th -11th May, 2012 at New Delhi.

Minutes of the 112nd meeting held on 10th – 11th May, 2012 in New Delhi were confirmed with the following corrections:

In item 'CRZ clearance for Kudankulam Nuclear Power Plant unit 3-6 at Kudankulam, Tamil Nadu by M/s Nuclear Power Corporation of India Limited. [f. No. 11-25/2010-IA-III]' the reject water temperature is limited to 6.6 C' instead of 3 C.

In road projects, the Hot – Mixed technology and Cooled Mix Technology shall be replaced by Hot-Mix Technology and Cold-Mix Technology.

3. Consideration of Old Proposals:

3.1 Amendment in the CRZ clearance granted for setting up of jetty, intake and outfall facility for 1320 MW (2 x 660 MW) coal based thermal power plant at Manickapanagu, Nagapatnam District, Tamil Nadu by M/s Chettinad Power Corporation Pvt Ltd [F.No. 11-147/2010-IA-III]

Environmental and CRZ clearance was granted for setting up of jetty, intake and outfall facility for 1320 MW (2 x 660 MW) coal based thermal power plant at Manickapanagu, Nagapatnam District, Tamil Nadu to M/s Chettinad Power Corporation Pvt Ltd. The proponent has stated that subsequently, the preparation of DPR was undertaken for the various project proponents which among others included the design of the layout showing the marine facility, sea water intake and outfall, dredging methodology etc. The study revealed that the following refinements and improvements would play a vital role in designing a more technically and operationally acceptable system. The original proposal envisaged provision of 2 x 600 MW power plant adopting sub- critical technology. It is now proposed to go in for a 2x 660 MW adopting super critical technology which would be more ideal and would increase the operational efficiency by 2 %. The coal requirement will almost remain the same to the tune of 4 MTPA

depending on the extent of blending proposed between indigenous and imported coal. The quantity of seawater intake and outfall will in fact be on the low side when compared with the original proposal, and as such environmentally this is more a positive impact. The intake and outfall quantity will be 12527 cum /hr and 8705/ cum/hr as against 13218 and 9740 cum/hr.

Concerning the routing of pipelines, it was originally envisaged to take them along the approach trestle of 1200 m long and 19.5 m wide. During the DPR stage, it emerged that the intake point should have to be a buried pipeline system to facilitate gravity flow of the intake point site, thus avoiding generation take cover and installation of a intake tower and pump house. This will also reduce the width of trestle from 19.5m to 12.5 m.

As per the original proposal dredge quantity of 4 million cum envisaged dumping into sea at a depth of 20 m. The subsequent study revealed that it would be more advantageous to use of material for raising the ground level of the plant site from its existing level of +0.5 m to +1.m to about +3.0m.

During the discussion, the following points emerged:

- (i) The dumping of dredge material in the area may reduce the fresh water recharge. Report on likely impacts on recharge vis a vis the sea water intrusion shall be submitted.
- (ii) Submit the recommendation of SCZMA for the modified proposal.

The Committee deferred recommendation of the proposal for issue of amendment till receipt of the above information.

3.2 CRZ Clearance for laying of 2 x 18' dia insulated pipeline from Ennore Port to LPG Import Terminal by M/s Indian Oil Petronas Pvt. Ltd. [F.No.11-76/2011-IA.III]

As presented by the project proponent the proposal is for laying of 2 x 18' dia insulated pipeline from Ennore Port to LPG Import Terminal. Indian Oil Petronas Pvt Ltd (IPPL), a joint venture company of Indian Oil Corporation Ltd is setting up a LPG Import/Export Terminal at Athipattu Village near Ennore Port for receipt, storage and evacuation of LPG having a design capacity of 6,00,000 MT /Annum. In order to bridge the supply demand gap of LPG, IPPL is setting up the LPG Import/Export Terminal. Propane/Butane/LPG is proposed to be imported at Ennore Port and will be transferred to the terminal. Environmental clearance has already been obtained from MoEF for the LPG Import/Export Terminal vide ref: F-No J-11011/433/2006-IA-II(I) dt.28.04.2008.

In order to receive and store Propane/Butane/LPG in refrigerated condition, twin transfer pipelines of 18" dia are proposed to be laid from Ennore Port to LPG Import/Export Terminal at Athipattu for an approximate distance of 10.2 Km. Out of this 10.20 km pipeline, the first segment of pipeline measuring 4.35 km will be laid by M/s. Ennore Tank Terminals Pvt Ltd (ETTTL) between the jetty and boundary wall of Ennore Port Limited (EPL). The second segment of 5.85 km will be laid by IPPL from EPL boundary wall to the LPG Import/Export Terminal at Athipattu.

Out of 4.35 km length of the pipeline within the port premises, Environmental Clearance from MoEF has been obtained upto common manifold (ETTTL) area from the Jetty (Length: 3.69 Km) vide Ref: 10-28/2005-IA-III dt. 19.05.2006. Now the environmental clearance is sought for the portion of pipeline between the common manifold and boundary wall of IPPL terminal (6.51 km). The pipelines will be laid above ground on pedestals and protected from external corrosion through Zinc Silicate coating supplemented with Coal tar Epoxy coating. Design, Construction and Operation of the pipeline system will be done as per International (ASME 31.3) and OISD 141 & 138 Standards.

The Entire length of Pipeline will be insulated with Poly Urethane Foam (200mm thickness) and covered with GI sheet cladding. There are no flange joints in the entire length of pipeline except at Jetty and Terminal end.

Demarcation of HTL/LTL, Risk Analysis, and EIA & EMP for the pipeline system has been carried out. A length of 675m of pipeline to be laid near Buckingham Canal and Pulicat Canal area is falling within 100m of HTL for which clearance is requested from the Expert Appraisal Committee for CRZ.

As per the Risk Assessment made, the possibility of product leakage from the pipeline between the common manifold and IPPL boundary is eliminated as there will not be any flange or valves. The worst case scenario considered is the total rupture and leak (20% rupture) of the product pipelines and consequent UVCE. The frequency/probability estimation of such scenario is 4×10^{-6} / Year. Fire protection facilities with Emergency Shut Down system as per OISD-144 will be provided both at the Jetty and terminal ends. Propane/Butane/LPG will be transferred from Ship tankers to the storage vessels of the terminal at sub zero temperatures. The entire transfer operation will be monitored round the clock to ensure safe unloading. The pipelines will be empty when there is no unloading operation.

Population density survey has been conducted and as per the survey there is no human settlement around 1 km radius from the proposed pipeline route. The entire pipeline route falls in Salt pan area and there is no vegetation in this area. Pulicat Bird Sanctuary which is situated 42 km away from the site will not have any impact.

The proposal was examined by the EAC in its meeting held on 16th - 17th April, 2012 and committee sought additional information. The information submitted by the proponent and the details regarding hydrotesting of pipe for different internal pressures in the pipe flow and the estimated probability of 4×10^{-6} /year for the possible rupture were examined by the Committee.

During the discussion, the following points emerged:

- i) *Comparative assessment on above and under ground options were submitted and in view of the transport of material in refrigerated condition, pipeline above ground was proposed.*
- ii) *At the worst case scenario the maximum damage distance is 429 m. There is no habitation within 1 km radius. It was informed that the area where the pipeline is proposed to be laid has been declared as Special hazardous industrial zone hence habitation in future is also not envisaged.*

The Committee recommends the proposal for CRZ Clearance with the above conditions in the Clearance letter for strict compliance by the project proponent.

3.3 Revalidation of the CRZ Clearance granted for Hotel project at Maduradevaneri Village, Mamallapuram, Thirukazhukundram Taluk, Kancheepuram district, Tamil Nadu for M/s Chandrakala Resort Hotels Ltd [F.No. J-19011/6/97-IA-III]

As presented by the project proponent the CRZ clearance for construction of Hotel the project at Maduradevaneri Village, Mamallapuram, Thirukazhukundram Taluk, Kancheepuram district, Tamil Nadu for M/s Chandrakala Resort Hotels Ltd was granted on 6.12.2005. Due to Global recession in 2006-2009 the project was kept pending by the financial institutions. Applied on 26.10.2010 to TPCB for Consent to Establish. TPCB has issued Consent to establish on 18.01.2012. As per the Consent to establish, valid EC is to be provided while applying for Consent to Operate. Therefore, the Ministry was approached on 18.11.2010, 30.09.2011 and 24.04.2012. There is no change in the project components.

During the discussion, the following points emerged:

- i) *The HTL/LTL map shall be prepared in 1: 4000 scale and submitted through the SCZMA.*
- ii) *Submit the site photograph/ google map*
- iii) *Submit the updated EMP*

In view of the foregoing observations, the committee recommend to defer the proposal. The proposal shall be reconsidered after the above observations are addressed and submitted.

3.4 Revalidation of the Environmental and CRZ clearance granted for the Captive Port: Deliberations on the reports of the review committee constituted for integrated Steel Plant of M/s Posco India Pvt. Ltd. at Jagatsinghpur District, Orissa. [F.No.10-9/2006-IA-III]

The Committee decided to defer the project, since the project proponent did not circulate the documents. Also suggested to submit the following:

- (i) The HTL/LTL map shall be prepared in 1: 4000 scale and submitted through the SCZMA.*
- (ii) Submit the site photograph/ google map,*
- (iii) Submit the updated EIA, EMP*
- (iv) Recommendation of SCZMA under the Coastal Regulation Zone Notification, 2011.*
- (v) Details of changes in the project components if any.*

4. Consideration of New Proposals:

4.1 CRZ clearance for proposed beach resort project at Mararikulam north village & panchayat Cherthala taluk, Alappuzha district, Kerala by M/s Mararari Beach Resorts (p) ltd. (F. No 11-44/2012-IA.III)

The project involves construction of Beach Resort project on a plot area of 5.299 ha. The total built-up area is 11,138.49 sq.m. It is proposed to construct Guest Rooms (76 Nos.), Restaurant (seating capacity 150 Seats), Banquet Hall (2 Nos.) (total seating capacity 420 Seats) (210 seats each). The total water requirement is 27.517 KLD (fresh water requirement is 19.315 KLD). Permission for water supply obtained Kerala Water Authority vide letter dated 22.02.2011. The capacity of STP proposed is 30 KLD. Treated waste water to be used for flushing of toilets is 8.202 KLD & for horticulture purposes is 14.086 KLD. In rainy days, the 14.086 KLD will be discharged into the drain. Total solid waste generation is 147.05 Kg/day. Parking provision is made for 163 cars & 170 Two-Wheelers. DG sets of 500 KVA and 250 KVA are proposed. Green belt of 35,185 sqm (66.42%) proposed. The power requirement is 750 KVA. Total cost of the project is Rs. 25 Crores.

Kerala CZMA has recommended the project vide letter No. 2261/A3/2010/KCZMA/S&T dated 31.03.2012.

During the discussion, the following points emerged:

- i) Consent shall be obtained for discharge of treated wastewater in to the drain.*
- ii) There is variation of the width of Row of the approach road. Uniform width shall be maintained.*
- iii) The site has many coconut trees it shall be designed such a way to minimize the tree cutting. – details of the number of trees,, nos to be retained shall be submitted.*
- iv) Submit the details of the location and survey number of the site where the ground water is to be extracted along with permission.*
- v) Dual plumping shall be provided for recycling the wastewater.*

The Committee recommends the proposal for CRZ Clearance after submission of the information at (iii) & (iv) above, with the above condition in the Clearance letter for strict compliance by the project proponent.

4.2 CRZ clearance for enhancement of Sea water drawal from 2200 KLD to 6700 KLD for desalination plant and reject discharge at Village Vayor Kutchch, Gujarat by M/s Jay Pee Gujarat Cement Plant.[F. No.11-48/2012-IA-III]

As presented by the project proponent, the CRZ clearance was granted for jetty, conveyor, sea water intake and desalination reject outfall vide letter No. 10-116/2007-IA-III dated 24.12.2007 and corrigendum on 22.01.2008. The Capacity of the cement plant is now being increased from 1.2 to 7.2 MTPA after the EC from MOEF vide letter No. J-11011/398/2007-IA-II (I) dated 04.08.2008. In order to meet the water requirement for cement expansion ,it is proposed to increase the capacity of desalination plant from 2200 KLD to 6700 KLD. The proposed sea water drawal will be 18,000 KLD as against 5800 KLD. Intake location shall remain same whereas the outfall is proposed to be relocated to 23 19'21.48" N and 68 36'07.00"E to attain required dispersion. The reject discharge will be 11,300 KLD as against 3600 KLD. The proposed discharge location is at 2 km down stream of the present location, the expected salinity rise within 50 m distance would be 0.7 to 1 ppt.

During the discussion, the following points emerged:

- (i) Submit the details of the mangrove area*

- (ii) *Measures viz filters shall be provided to prevent the marine life getting into the intake system.*
- (iii) *Project proponent shall monitor the creek eco system pre- project and post project periods.*

The Committee recommends the proposal for CRZ Clearance with the above condition in the Clearance letter for strict compliance by the project proponent.

4.3 CRZ clearance for construction of sea water intake, pump house, laying of pipelines for intake and outfall of boiler blow down desalination plant reject for 150 MW Thermal Power Plant at Karapidagai Vadakku Village, Nagapattinam by M/s Nagapattinam Energy Pvt Ltd .[F. No.11-49/2012-IA-III]

As presented by the project proponent M/s Nagapattinam Energy Private Limited (NEPL) proposes to establish a coal based Thermal Power Plant of capacity 1 x 150 MW at Karappidagai North village, Kilvelur Taluk, Nagapattinam District in Tamilnadu. The MoEF has recommended the Power Project in its 36th meeting for grant of environmental clearance. The water demand (cooling and consumptive purposes) for the proposed plant will be met from Bay of Bengal through a suitable sea water intake system. Proposed Power Plant site is located at a distance of approximately about 5.5 Kms from sea and 300 meters from HTL of Vedaranyam canal. It is proposed to draw sea water through a suitable intake system located about 350 mtrs and the out fall will be located about 1000 mtrs from the shoreline. Co-ordinate: Intake:79°51' 40.7" E; 10° 34' 00.02" N Outfall: 79° 52' 01.95" E; 10° 34' 31.06" N. The sea water intake system will comprise of intake pipes from sea to pump house, trash screen, gates, pump sump (RCC) and pump house. Two (2) nos. intake pumps of 2500m³/h capacity, one operating and the other standby will be used for pumping the sea water to the plant through HDPE supply pipes (Approx 600 mm dia). The total sea water requirement for the proposed project is approx 2,250 m³/hr.

The pipe line is proposed to be laid underground along the banks of Pudupalli Vaikkal, for which the NOC from State PWD authorities have been obtained.

A sea water desalination plant (RO) of 5 MLD will be installed in the Power Plant area and the treated water is used for various services like A.C.water make up, coal handling plant dust suppression, Ash water make up etc.A Demineralised Plant of 0.5 MLD will be installed to meet the requirements of Boiler make up.

The various traded effluents like boiler blow down, cooling tower blow down, RO plant rejects etc will be collected in a Guard Pond for monitoring the effluent quality. Two nos. of 2500 cum/hr capacity outfall pumps (1 W

+ 1 S) pump the effluents through HDPE pipe line to the sea outfall point located at a distance of 1000m from shore line. The effluents will be discharged through multiple ports at the outfall for proper thermal and salinity dispersion. The total effluent discharge to sea is approx. 2000 cum/hr.

The Tamil Nadu SCZMA has recommended the project vide letter No... dated...

During the discussion, the following points emerged:

- (i) *NOC from SPCB shall be submitted for disposal of reject in to Sea.*
- (ii) *The outfall shall be further extended away from Breakwater.*

The Committee recommends the proposal for CRZ Clearance after submission of the information at (i) above, with the above condition in the Clearance letter for strict compliance by the project proponent.

4.4 Environmental Clearance for development of proposed Common Effluent Treatment and recovery Plant at Kainduwal, Himachal Pradesh by M/s Baddi Infrastructure [F.No. 10-53/2011-IA-II]

As presented by the project proponent, the project involves establishment of common effluent treatment and recovery plant at Baddi, Himachal Pradesh. The site is located on a flat terrace surrounded by Dharampur range, Surajpur-Haripur-Mandhala range and Shivalik hills. The nearest town Baddi is 750 mts. The CEPI index is just below 70. There are about 1262 industrial units/plots in the industrial area of Baddi-Barotiwala. The type of industries are Textile, Dyeing & Spinning -27, Pulp & paper – 3, Pharma – 169, Soap & Detergents – 37, Food & Beverages – 30, Electroplating & Pickling – 9 and Miscellaneous – 987. The total sewage load is 4102.4 KLD. The Bio Sludge is 6 tonnes/ day and Inorganic Sludge is 24 tonnes/ day. The total cost of the project is Rs.60 crores.

The proposal was considered by the EAC in its meeting held on 23rd-24th June, 2011 but deferred as the project proponents were not clear about details.

The details submitted and presented were examined by the EAC its meeting held on 17th -19th August, 2011 and Committee finalized the additional TOR for further study including public hearing. Public hearing was conducted on 07.03.2012 at Kenduwal, Solan.

During the discussion, the following points emerged:

- i) *Treated wastewater is proposed to be discharged in to the River*

Sirsa. Comments from Irrigation department is required. Further, in the report it was stated that Kalta Nala, Pula Nala, Sandhoil Nallah etc which are tributaries to river Sirsa are polluted with effluent. In view of the above, it is suggested that MoEF may obtain a status report from SPCB to review the situation.

- ii) The MoU made between the member units is not describing any responsibility among member units, treatment etc.*

The Committee recommends the proposal for CRZ Clearance after submission of the above information, with the above condition in the Clearance letter for strict compliance by the project proponent.

4.5 Environmental Clearance for the development of Multi Cargo Port with supporting utilities and infrastructure facilities at Hazira, Surat by M/s Adani Hazira Port Pvt. Ltd. [F. No. 11-150/2010 -IA-III]

M/s. Adani Hazira Port Private Limited (AHPPL), a subsidiary of Adani Ports and Special Economic Zone Limited (APSEZL) formally known as Mundra Port and Special Economic Zone Limited (MPSEZL) has entered into the sub concession agreement with Hazira Port Private Limited (HPPL) promoted by M/s. Shell India for construction, operation and maintenance of the multi cargo terminals, backup facilities and related infrastructure facilities. Multi Cargo Port” by M/s Hazira Port Private Limited, Shell Group was granted EC/CRZ Clearance by MoEF vide F.No. J-16011/11/2003-IA-III on 26th June 2003. Further, MoEF recommended the revised proposal vide F. No. J-16011/11/2003-IA -III on 19th February 2007. Later ToR was issued to Adani Hazira Port Pvt, Ltd, vide F.No. 11-150/2010- IA.III on 07th April 2011 including conduct of Public Hearing, for minor alteration in basin, liquid cargo handling along with storage facilities, other dry & general cargo, Ro-Ro terminals for automobile handling, the dredging upto -15m CD supporting infrastructure facilities along with additional arterial road network connecting to NH – 6 and internal road, rail connectivity to all terminals by MoEF.

Proposal includes development of total 12 berths instead of earlier proposal of 11 berths, out of which 7 berths will be developed in first five years plan: Two Container Berths, One Coal Berth, One Liquid Berth, Three Multi-Purpose Berths for handling bulk, break bulk cargo etc. Dredging up to - 15.0 m instead of earlier proposal of -13.5m, Liquid cargo handling facilities along with associated piping & storage facilities, Utilities & Supporting infrastructure facilities such as (i) Ro-Ro Terminal (ii) Internal roads, (iii) Rail corridor, (iv) HT Power Transmission Line, Relocation of NIKO existing effluent pipe line and outfall, Proposed Reclamation to the tune of 225.30 ha at North Side of Port Limit & 84 ha at South Side of Port Limit, Desalination Plant of 6MLD Capacity along with intake and outfall facilities, Effluent Treatment Plant of Capacity 2.5 MLD and STP of 2.0 MLD capacity.

The SCZMA has recommended the project vide letter no.ENV-10-2012-30 E dated 11.05.2012 subject to various conditions.

During the discussion, the following points emerged:

- (i) Response to the conditions of SCZMA shall be submitted.*
- (ii) Valsad has stable coast as per the study conducted by IOM*
- (iii) There is no mangroves in the site, however, it shall be ensured that free flow of water to nearby mangrove patches.*
- (iv) Suitable dredge material will be used for Land reclamation and excess will be dumped at identified dump site*
- (v) Shall submit the NOC for desalination reject disposal*
- (vi) Niko outfall needs to be relocated due to the project and MoU was made with them. According to the MoU, Niko will obtain clearance for changing the outfall location.*
- (vii) The ToR was finalized including conduct of Public Hearing but the PP has requested to exempt Public Hearing in view of the location adjacent to Industrial area. The Committee has not agreed to the above since the PH was not conducted under EIA, 2006 and the site is not in declared Industrial area.*

In view of the foregoing observations, the committee recommend to defer the proposal. The proposal shall be reconsidered after the above observations are addressed and submitted.

4.6 Environmental Clearance for the CETP at Village Shrirampur, Tehsil Gamharia District, Saraikella Kharasawan Jharkhand by M/s Adityapur Auto Cluster [F.No. 10-67/2011-IA-III]

As presented by the project proponent, the proposal involves development of CETP for treatment, recycling and disposal of effluents being generated by industries located in Adityapur Industrial Area near Jamshedpur Project proponent is Adityapur Auto Cluster (AAC) – a section 25 company set up by Adityapur Small Industries Association in collaboration with Adityapur Industrial Area Development Authority (AIADA) – a Government of Jharkhand undertaking.

Presently there is no facility to handle effluents in Adityapur. In absence of such facility, industrial units illegally release their liquid wastes in rivers and streams. The proponent has taken the initiative to set up a Common

Effluent Treatment Plant (CETP) in this area and has conducted a Feasibility Study for the same. The project is being funded by DIPP, Ministry of Commerce, Govt. of India under the Industrial Infrastructure Upgradation Scheme (IIUS)

There are 905 units in AIADA currently out of which 791 are operating and the rest are closed. The bulk of these belong to the Engineering sector which caters to larger industries in Jamshedpur. Other units include Chemical units, units engaged in production of Food and Beverages, Paper, Glass, LPG Bottling etc.

The types of Effluents being generated are oily wastes and acidic and alkaline wastewater from engineering & related industries using processes such as pickling, etching, alkaline degreasing, High organic strength wastewater from Chemical and rubber industries reactor dumps / distillate/ condensate from chemical rubber and plastic processing. Also included are metallic wastewater in terms of suspended solids in water like heavy metals and phosphates.

A total of 770 cu.m of liquid waste per day is being generated including 450 cu.m of oily wastes, 120 cu.m of acidic/alkaline wastes, 120 cu.m of metallic wastewater and 80 cu.m of high organic strength wastewater. As such a total of 281 Million Litres of effluents would be handled by the facility every year.

Tanker based collection system is recommended as the wastewater generating industries are spread over a vast area and mostly they generate a small quantity of wastewater, further the terrain is not suitable for a piped collection system. Project requires 12.4 acres of land which is available with AAC and is located within Adityapur Industrial Area.

This is a Category 'B' but since there is no SEIAA in Jharkand, the project was examined by the EAC in its meeting held on 10th – 11th January, 2012 and finalized the additional TOR for further study. The Committee exempted the conduct of Public hearing since the site is located within the Industrial Estate notified in 1972.

During the discussion, the following points emerged:

- (i) Submit the MoU /legal framework on responsibilities of CETP, Member Industries and Final Effluent Treatment Plant.*
- (ii) Hazardous sludge generated shall be disposed to the hazardous waste management facility. MoU in this regard shall be submitted to the Ministry / Regional Office prior to commencement.*
- (iii) Regular monitoring of functioning of CETP and treated effluent shall be carried out by the proponent.*

- (iv) *Submit the detailed layout plan of the CETP*
- (v) *Submit the details of the ground water level and measures to prevent leakages and groundwater contamination.*

The Committee recommends the proposal for Environmental Clearance after submission of the above information, with the above condition in the Clearance letter for strict compliance by the project proponent.

4.7 Finalization of ToR for proposed common incineration facility at plot No. D-43, Dahej Industrial Estate, Taluka Vagra, Dist. Bharuch by Bharuch Enviro Infrastructure Ltd. (F. No. 10-38/2012-IA.III).

M/s. BEIL has acquired total 2,85,343.76 m² land for proposed project activity. No forest land is involved. Total cost of proposed project is Rs. 2548.80 Lacs. Total water requirement will be 190 KL/day and shall be met through GIDC water supply. Total waste water generation shall be 163 KL/day. Waste water to be generated is going to recycle/reuse or disposed in to GIDC pipeline after treatment in ETP/CETP, if required.

There will be emission from Incineration Plant and DG set (emergency used only). To control emission, bag filter, alkaline water Scrubber and Packed Column will be provided. Hazardous waste generation will be Incineration Ash @ 5000 MT/Year, Discarded Packing Material @ 1,08,000 Nos./ Year, Used Oil/ Lubrication Oil @ 5.06 KL/Year.

Incineration Ash shall be sent to TSDF site for final disposal. Discarded Packing Material shall be after Decontamination/Detoxification/AEPS approval sold to GPCB approved scrap Recycler or Re user. Used Oil/ Lubrication Oil will be sent to Incineration (within premises) or Sold to GPCB approved Recycler or Reuse as Lubricant.

Total 2,85,343.76 sq. meter land area is available at site; out of this area about 52,500 sq. meter (18.4 %) area is covered as greenbelt and other forms of greenery.

During the discussions, the Committee finalized the following additional TOR for further study:

- i) *Examine and submit the details of the monitoring of Dioxin & furon*

- ii) Submit the details of the performance report / monitoring report of PCB of existing similar facility.*
- iii) Submit the details of site selection criteria - CPCB guidelines along with the various sites examined*
- iv) Alternative technologies considered before selecting incineration system. Technical details along with efficiency of the proposed incinerator and cost of the incinerator.*
- v) Submit the details of the compliance with respect to the provisions of Hazardous Wastes (Management, Handling and Trans-boundary movement)) Rules, 2008 including collection, storage, and transportation, treatment and disposal etc All the applicable rules shall be listed and mitigation plan to comply the applicable rules shall be submitted in detail.*
- vi) Submit the details of the waste generated, present mode of disposal as per the State PCB authorization etc.*
- vii) Submit the MoU made between member units along with responsibilities.*
- viii) Submit a copy of MoU for disposal of ash through the TSDF.*
- ix) Submit the details of treatment and disposal of waste water from the scrubber.*
- x) Environmental Management Plan should be accompanied with Environmental Monitoring Plan and environmental cost and benefit assessment. Regular monitoring shall be carried out for odour control.*
- xi) Submit details of a comprehensive Disaster Management Plan including emergency evacuation during natural and man-made disaster.*
- xii) Site lay out clearly showing facilities, green belt, laboratory, vehicle parking etc shall be submitted.*

The Committee exempted the project from conducting PH since the site is located in the notified industrial area.

A detailed draft EIA/EMP report should be prepared as per the above additional TOR and should be submitted to the Ministry as per the Notification.

4.8 Finalization of ToR for proposed expansion of Taneja Aerospace and Aviation at Belagondapalli village Denkanikottai Taluk, Krishnagiri, Tamil Nadu by Taneja Aerospace and Aviation Ltd. (F. No. 10-40/2012-IA.III).

As presented by the project proponent, the proposal is for Expansion of Taneja Aerospace and Aviation Ltd. at Belagandapalli Village, Denkanikottari Taluk, Krishnagiri District, Tamil Nadu. The project site is located at Belagondapalli Village, about 8.7 km from Hosur, a capital town of Krishnagiri, the northern state of Tamil Nadu. TAAL is engaged in Civil Aircraft Manufacturing, Structural and Components manufacturing for Civil & Military Aircrafts/Helicopters and Aerospace Launch Vehicles. Service provided in the fields of Air Charters, Aircraft Maintenance. It has an infrastructural facility like ATC, Hangars and DGCA Licensed Airfield.

This Aerospace is running by a private management. The expansion project will compile the expansion of runway and construction of aircraft hangers in the project site.

The existing runway is 2100 m x 45 m, apron 110 x 90 m and 40 m x 19 m, two Taxiway, four hangers. Proposed facilities include 2 hangers, one apron, one taxiway, one manufacturing units.

The total requirement of raw water will be met from private water supply and it will be about 18 KLD for the expansion project. The total waste water generation will be estimated around 14.6 KLD of Sewage. Sewage Treatment plant with the Capacity of 30 M³/day will be used to treat the waste water generated from the unit and the outlet will be used for green belt. From this project 200 kg/day of solid wastes will be produced. These solid wastes will be separated as biodegradable and non biodegradable and suitable disposal methods will be adopted for them. These will be sent to local municipality or authorized vendors or used as manure as required. No passenger and Cargo are proposed. Total Project Cost for the expansion will be Rs.2310 Lakhs.

Earlier, the proponent got ToR for extension of runway and it was dropped.

During the discussions, the Committee finalized the following additional TOR for further study:

- i) *Examine baseline environmental quality along with projected incremental load due to the proposed project/ activities.*
- ii) *Submit details of environmentally sensitive places, land acquisition status, rehabilitation of communities/ villages and present status of such activities.*
- iii) *Submit the details of the source of water, permission etc.*
- iv) *Environmental data to be considered in relation to the airport development would be (a) land, (b) groundwater, (c) surface water, (d) air, (e) bio-diversity, (f) noise and vibration, (g) socio economic and health.*
- v) *The air quality monitoring should be carried out as per the new notification issued on 16th November, 2009.*
- vi) *Submit details of a comprehensive Risk Assessment and Disaster Management Plan including emergency evacuation during natural and man-made disaster integrating with existing airport.*
- vii) *Examine separately the details for construction and operation phases both for Environmental Management Plan and Environmental Monitoring Plan with cost and parameters.*
- viii) *Examine the details of afforestation measures indicating land and financial outlay. Landscape plan, green belts and open spaces may be described. A thick green belt should be planned all around the nearest settlement to mitigate noise and vibrations. The identification of species/ plants should be made based on the botanical studies.*
- ix) *Examine and submit the details of Noise modeling studies and mitigative measures.*
- x) *Examine the details of water requirement, use of treated waste water and prepare a water balance chart. Source of water vis-à-vis waste water to be generated along with treatment facilities to be proposed.*
- xi) *Rain water harvesting proposals should be made with due safeguards for ground water quality. Maximize recycling of water and utilization of rain water.*

- xii) *Examine details of Solid waste generation treatment and its disposal.*
- xiii) *Identify, predict and assess the environmental and sociological impacts on account of the project/activities.*
- xiv) *Submit details of corporate social responsibilities (CSR).*

Public hearing to be conducted for the project as per provisions of Environmental Impact Assessment Notification, 2006 and the issues raised by the public should be addressed in the Environmental Management Plan.

A detailed draft EIA/EMP report should be prepared as per the above additional TOR and should be submitted to the Ministry as per the Notification.

4.9 Finalization of ToR for proposed common hazardous waste management facility including incineration at Industrial Growth Centre, Phase-II, Samba, Mandhera Village, Jammu & Kashmir by M/s APR Projects Pvt Ltd [F.No. 10-43/2012-IA-III]

As presented by the project proponent, the proposal involves development of common hazardous waste management facility including incineration at Industrial Growth Centre, Phase-II, Samba, Mandhera Village, Jammu & Kashmir. Jammu & Kashmir State Industrial Development Corporation Ltd. (J&K SIDCO) has taken up developing Industrial Hazardous Waste anagement facility for Treatment, Storage & Disposal Facility at Industrial Growth Centre, Samba, Phase-II. J&KSIDCO has appointed M/s.APR PROJECTS LTD, Hyderabad, India as a promoter for setting up of Hazardous Waste Management Facility with an investment of Rs.149.58 Crores.

Proposed project activities consists of Collection, transportation, reception, treatment, storage, re-use, recycle, blending and disposal of industrial hazardous wastes, bio-medical waste and E-Waste generated in the state of J & K. The quantity of waste generated from SIDCO Industrial Estates namely Samba and Bari Brahmani, Gangyal and Birpur Industrial Estates. The quantities of hazardous wastes generated estimated to be about 30,000 TPA (expected to be received at the facility). The proposed project falls in Project Activity 7(d) - Common hazardous waste treatment, storage and disposal facilities (TSDFs). The proposed project falls in Category 'A', All Integrated facilities having incineration & landfill or Incineration alone. 8.0 acres of land allotted Industrial Growth Centre, Phase-II, Samba. Mandhera village, Samba Tehsil, Samba district. J&K. The total power required for the proposed project is 1000KVA will be taken from Power Development Department, J&K, The total water required is 25 KLD will be met through Ground Water Source. The expected leachate from Hazardous waste facility

accounting to 12 cum/day will be collected and recycled. The total waste reaching the integrated waste management facility and phase wise :

Phase I

Hazardous Waste Secured Landfill 68 TPD,
Spent Solvent Recycling 9 KLD
Treatment/ Stabilization 41 TPD
Bio Medical Waste 2 TPD
E- Waste 55 TPD

Phase II

Recycling Facility
Secondary Lead Recycling 11 TPD
Used Oil Recycling 6 KLD
Alternate Fuel & Raw material facility 14 TPD
Incinerator 27 TPD

Green belt development will be taken up 5m wide (3 rows of different height) along boundary and open areas/closed dump site with 33% of land area and proper treatment provided to leachate to restrict odour problem.

During the discussions, the Committee finalized the following additional TOR for further study:

- (i) *Submit the justification of the Project. Project components and capacities shall be submitted.*
- (ii) *Critical environmental aspects with reference to proposed facilities i.e BMW, E-Waste Facility, Oil recycling and HW facility shall be identified. Combined effects shall be discussed with specific mitigation plan.*
- (iii) *Submit the details of site selection criteria - CPCB guidelines along with the various sites examined based.*
- (iv) *Site lay out plan clearly showing various units, green belt, laboratory, roads, vehicle parking, office building etc to be submitted.*
- (v) *Submit the details of the compliance with respect to the provisions of Hazardous Wastes (Management, Handling and Trans-boundary movement)) Rules, 2008 and Bio- Medical Waste (Management and Handling) rules, 2000 including collection and transportation. design etc.All the applicable rules shall be listed and mitigation plan to comply the applicable rules shall be submitted in detail.*

- (vi) *Action plan and infrastructure required to comply the PROTOCOL as prepared by CPCB for performance evaluation and monitoring of TSDF.*
- (vii) *Submit the details of the waste generated, present mode of disposal as per the State PCB authorization etc.*
- (viii) *Submit the MoU made between member units along with responsibilities.*
- (ix) *Examine the details of monitoring of Dioxin and Furan.*
- (x) *Submit a copy of MoU for disposal of ash through the TSDF.*
- (xi) *Submit the details of Air Pollution Control Measures.*
- (xii) *Environmental Management Plan should be accompanied with Environmental Monitoring Plan and environmental cost and benefit assessment. Regular monitoring shall be carried out for odour control.*
- (xiii) *Water quality around the landfill site shall be monitored regularly to examine the impact on the ground water.*
- (xiv) *Submit details of Cumulative impact including Biomedical and E-waste etc.*
- (xv) *Applicable rules under E- Waste (Management & Handling) Rules, 2011 and action plan to comply the provisions.*
- (xvi) *Submit details of a comprehensive Disaster Management Plan including emergency evacuation during natural and man-made disaster*

Public hearing to be conducted for the project as per provisions of Environmental Impact Assessment Notification, 2006 and the issues raised by the public should be addressed in the Environmental Management Plan.

A detailed draft EIA/EMP report should be prepared as per the above additional TOR and should be submitted to the Ministry as per the Notification.

4.10 Finalisation of ToR for Port Crane Assembly Unit at APSEZ by M/s Anupam - MHI Industries Ltd. (F. No. 11-41/2012-IA.III)

The Committee decided to defer the project, since the project proponent requested for postponement.

4.11 Finalization of ToR for Development of barge handling facility in Chennai Port by M/s Chennai Port Trust. (F. No. 11-45/2012-IA.III]

The Committee decided to defer the project, since the project proponent did not circulate the documents.

4.12 CRZ clearance for development of Railway connectivity and HT Power Transmission line for multi Cargo Port at Hazira, district Surat, Gujarat by M/s Hazira infrastructure Private Limited. [F.No.11-47/2012-IA-III]

Adani Hazira Port Private Limited (AHPPL), a subsidiary of Adani Ports and Special Economic Zone Limited (APSEZL) formally known as Mundra Port and Special Economic Zone Limited (MPSEZL) has entered into the sub concession agreement with Hazira Port Private Limited (HPPL) for development, Construction, Operation and maintenance of the multi cargo terminals and related infrastructure at Hazira. Further, Hazira Infrastructure Private Limited (HIPL) is formed as a subsidiary of AHPPL to plan and develop the required Railway Infrastructure and Utility Corridor. An Internal port railway infrastructure will be developed directly by AHPPL. For the said activity M/s. HIPL, Obtained CRZ recommendations from Forest & Environment Department, Government of Gujarat vide Ref. No. ENV-10-2012-31-E, Dated 11th May 2012.

Proposal includes Railway connectivity & HT Power Transmission Line. Railways & High Tension Power Corridor does not required Environmental Impact Assessment Studies (EIA). But part of Railway & HT Power Transmission Line fall's in Inter Tidal Zone & it needs CRZ Clearance and CRZ attracts EIA studies in view of the CRZ requirements EIA Studies is done.

During the discussion, the following points emerged:

- i)*** *The railway line, transmission line shall be on stilt in CRZ -I (A) area accordingly, the map shall be revised.*
- ii)*** *All the conditions stipulated by the SCZMA shall be complied with.*
- iii)*** *Only activities permissible under the CRZ Notification, 2011 shall be carried out.*

The Committee recommends the proposal for CRZ Clearance after submission of the information at (i) above, with the above

condition in the Clearance letter for strict compliance by the project proponent.

4.13 Finalisation of ToR setting up of Recycling facility near Mundra in Kutchch , Gujarat by M/s Adani Ports and Special Economic Zone Ltd [F.No. 11-7/2012-IA-III]

The Committee decided to defer the project, since the project proponent did not circulate the documents.

4.14 Environmental Clearance of the proposed Murti Housing & Finance Private Ltd Township project at village Birubandh, Bokaro, Jharkhand M/s Murti Housing & Finance Private Ltd. F. No 21-57/2011- IA.III

As presented by the project proponent, the proposal is for construction of Multi Housing & Finance Private Ltd Township project at village Birubandh, Bokaro, Jharkhand. The project authorities and their consultant M/s Ascenso Management and consulting Services Pvt. Ltd. Kalaji, New Delhi gave a detailed presentation on salient features of the project and proposed environmental protection measures to be undertaken. Al 1 Building /Construction projects/Area Development projects and Townships are listed at S.No. 8 a & 8 b under category of schedule of Environmental Impact Assessment Notification No. 1533 (E) dated 15th September 2006.

M/s Murti Housing & Finance Private Ltd.(MHFPL) is propose to develop the Murti Housing & Finance (P) Ltd. Township in Village Birubandh , Mouza-Mohal (West)-ChandanKyari, Bokaro district of State Jharkhand. The total plot area of this proposed Town ship project is 474291.572 m² (117.2 Acre.) Initially Phase I of the project would be developed on Plot area of 90718 Sqm (22.4169acre). Total Built-up are for phase I is 113389 Sqm. Total Green area for Phase I is 51796 Sqm which is 58 % of total plot area for Phase I. Regarding land for development of MHFPL township project, NOC is obtained from Mukhia of Gram Panchayat , Chandankiari, Bokaro, (Jharkhand) & Advocate 9District Civil Cout Bokaro.

The project would have 2 BHK Block, 3 BHK Block, Hostel Block, Dormitory Block, Supporting Staff Housing, Bachelors accommodation, Shopping Complex Hospital and Parking facilities. Total dwelling of proposed project are 1057 and total population of proposed MHFPL project is 4758 (@ 4.5 persons per Dwelling Unit)

Proposed project site is located at “23^o39’53.41”N, “86^o 21’29.22”E .This proposed project site is surrounded by village Shewababudih in East, Amlabad in East –North, Debgram in North, Siyaljori in East and Mahal in South East. There are no national Park/wildlife sanctuaries situated within 10 km radius of proposed project site. Damodar River is approx 3 km from proposed project site. Total water requirement of proposed MHFPL township

project is 564 m³ /day, out of which total fresh requirement is 395 m³/day for Domestic purpose. Rest of the requirement will be met through recycling of treated water. Treated water will be used in Flushing, Landscaping and cooling purpose. Rain water harvesting will be done. Total solid waste generated from proposed MHFPL project 2467 Kg/day and Total Biomedical waste is 112 kg/day (90 kg from Hospital+22 kg from Hospital waste). Entire solid waste generated including biomedical waste will be properly collected, segregated and disposed as per the norms.

Total power requirement of proposed project at 0.85 % loading is 7030.69 KVA. Back up of power for proposed MHFPL is 10 nos. of DG sets having capacity of 6*750+4*500 KVA.

During the discussion, the following points emerged:

- i) Submit the details on the yield study of the bore well and likely impacts on competitive users in the vicinity.*
- ii) The water quality shows high value of Nitrate, it shall be rechecked and water quality of at least two more locations shall be submitted.*
- iii) There shall be no tree cutting for the project development.*
- iv) Revise and submit the water requirement based on the MoEF norms*
- v) Submit the detailed layout showing the land use details, existing features viz. trees, building, transmission lines etc.*
- vi) Examine the alternate water source including river Damodar.*
- vii) Submit the contour map, drainage map and run off collection and disposal system.*
- viii) Submit detailed layout of the all building and hospitals.*
- ix) Submit the road connectivity to the site with the details of type and width of roads.*
- x) Submit the details of disposal of Bio- medical waste along with*

the MoU for the disposal to authorized agency.

xi) Submit the details of Solid waste collection and disposal.

In view of the foregoing observations, the committee recommend to defer the proposal. The proposal shall be reconsidered after the above observations are addressed and submitted.

4.15 Environmental Clearance for residential group housing complex at Dumduma, Bhubaneswar in the district of Khurda. M/s D.N. Homes Pvt. Ltd. F.No. 17/SEIAA /Odisha

As presented by the project proponent, the proposal is for construction Group Housing Complex on a plot area of 16,693.28 Sq.m (or 4.12 acres). There will be B+G+17 storied residential complex with total built up area of the project is 60,068.6 Sq.m. Green area of 6,605.68 Sq.m. will be provided. Parking of 456 ECS is proposed. The total water requirement is 280 KLD (Fresh water requirement = 147 KLD). The source of the water is through Bhubaneswar development Authority/bore well during operation and private water tankers during construction phase. The sewage generation is about 172 KLD and capacity of STP is about 344 KLD. Treated water will be used for flushing/horticulture/DG cooling and HVAC Cooling. The total power requirement is 3,000 KW. 2 number of DG sets of 500 KVA capacity each are proposed. Total solid waste generation will be 608 kg/day. The total cost of project is about Rs. 356.67 Crores.

During the discussion, the following points emerged:

- (i) Since the ground water table is high, direct recharge of ground water may be difficult, storage tank can be provided and water reused.*
- (ii) The STP should be constructed on modular basis.*

The Committee recommends the proposal for Environment Clearance with the above condition in the Clearance letter for strict compliance by the project proponent.

4.16 Environmental Clearance for proposed Multi- storeyed Residential Apartment, Lake View Height construction project at Mouza Madhusudan Nagar and Nayapalli, Tehsil Bhubaneswar, Dist Khurda in the State of Odisha. F.No. SEIAA/32/Odisha

The Committee decided to defer the project, since the project proponent did not attend the meeting.

4.17 Environmental Clearance for Sector specific SEZ with CETP-CRZ clearance for Treated Effluent disposal to marine outfall project at Chittivalasa, Boyapalem & Naravu Village, Ranasthalam Mandal, Srikakulam distt. Andhra Pradesh. M/s Vivimed Labs Limited, SEZ. F. No 21-14/2011- IA.III

As presented by the project proponent, the project involves development of Sector specific SEZ with CETP- CRZ clearance for Treated Effluent disposal to marine outfall project at Chittivalasa, Boyapalem & Naravu Village, Ranasthalam Mandal, Srikakulam distt. Andhra Pradesh. Total area is 289 acres. The overall activity includes manufacturing of Sector Specific SEZ comprising of Synthetic Organic Chemicals manufacturing units (Cosmetics, Bulk Drugs, Dyes and intermediates and Commercial R&D (Pilot and Lab scale) with CETP and Common Solvent Recovery Unit.

Coal is proposed to be used in the proposed boilers of 2 Nos. of 25 TPH and 2 Nos. of 50 TPH. The Coal consumption will be about 450 TPD. Diesel will be used in the proposed 5 Nos. of 1000 KVA D.G.Set, which will be about 1000 Ltrs/hr at full operation load. The total power requirement of the plant is 4000 KVA. DG set are used only as standby during power failures. The above requirements are for the SEZ with one industry owned by proponent.

The total estimated water requirement will be 3850 KLD and 2350 KLD will be met from the Ground Water & 1500 KLD from treated water. The sources of effluent from the individual plots will be collected separately by laying 4 nos. of pipelines to CETP. Segregation in different streams like HTDS/HCOD (Mainly from Process), HTDS (Mainly from Boiler blow down, Cooling tower bleed, DM Water & Scrubbers), LTDS / LCOD (from other sections like Washing, R&D, Q.C etc.) and Domestic wastewater will be collected after approval of inlet CETP parameters from SEZ Environment Division.

All types of trade effluent storage and primary treatment tanks will be allowed to store in 1m above ground effluent tanks. Effluent treatment tanks will be construct minimum 1 m above ground tanks in the CETP. Minimum 2 day storage tank will be constructed for storing individual effluent streams. Stripped solvents from steam stripper will be collected and sent to APPCB authorized agencies for reuse as alternate fuel. Concentrate from MEE system will be sent to ATFD and the salts will be collected and sent to CWMP – TSDF, Parwada along with the ETP sludge for safe disposal.

As this is a Sector Specific SEZ (Synthetic Organic Chemicals, Bulk Drugs, Intermediates, Cosmetics, Dyes and Dye Intermediates) the solid waste generated from the individual member industries will be segregated and stored on the raised covered platform before sending it to APPCB authorization parties directly on obtaining authorization from APPCB. Solid waste generated at the project site will be segregated into Organic and

Inorganic. The Organic Solid waste will be disposed off to Cement, Steel or Power units as per the guidelines of the CPCB where the waste will be used as alternate fuel. The Inorganic Solid waste from the individual industries and from the common liquid waste treatment facility will be collected and disposed off to the nearest TSDF presently located at Parwada belonging to JN Pharma City.

For Gaseous emissions, the individual industries will provide Scrubbers based on the characteristics of gases. Boiler emissions will be controlled by providing Bag filters to reduce the particulate emissions.

Common Effluent Treatment Facility- 3000 KLD capacity is proposed. The common facilities include parking- 7 acres, storm water drains/ rain water harvesting pits -11 acres, green belt 20 m width all around the boundary- amounting about 33% of total area of SEZ land, Common Sewage Treatment Facility (Maximum 1 KLD per acre), Solvent recovery facility, Electricity for Common facilities with standby power, Auditorium for Training / conferences, Common Internal Roads, Primary Health Care Centre with Ambulance Facility, Communication systems like Phone, Internet etc., Construction of Boundary wall, Security system at the Entrance of the SEZ and. Cost of the project is Rs 412 crores.

The effluent amounting to 1100 KLD including High TDS effluent of about 280 KLD is proposed to be disposed into the Sea. The discharge will have TDS of 12000 mg/l. The out fall pipeline will be laid along the creek boundary of the Kandivalsa river. The length of the pipeline is 9.793 km. The Outfall location is 1.5 Km from the Land Fall Point. The outfall will have a multiple port diffuser arrangement system consisting of 6 x 100 mm dia. Ports giving rise to the dilution of 1000 times. NIO has demarcated the HTL/LTL.

The proposal was examined by the EAC in its meeting held on 11th - 12th May, 2011 and finalized ToR including conduct of Public hearing. Public Hearing conducted on 14.03.2012 at the site.

During the discussion, the following points emerged:

- i) Submit recommendation of State Coastal Zone Management Authority.*
- ii) NOC from PCB shall be submitted for marine disposal*
- iii) Submit the MoU /legal framework on responsibilities of SEZ, Member Industries.*
- iv) Mechanized sludge handling system shall be considered instead*

of sludge drying beds.

- v) Submit the MoU with authorized agency for the Hazardous waste disposal.*
- vi) Flow meters shall be provided to monitor the outfall and the reading shall be registered, submitted along with the six-monthly monitoring report.*
- vii) Provide on line monitoring for VOC at least in 3 locations along the boundary with 120 degrees.*
- viii) Submit specific action plan / commitments on the issues raised & response given during public hearing.*
- ix) Submit the layout plan showing the different services such as road network, water supply and effluent pipelines, parking facility etc.*
- x) Submit the details of anticipated impact due to the growth scenario/ induced developments because of the green field project. Impact due to influx of people due to project and all other associated activities or otherwise may be carefully projected and estimated. Commitments for environmental and ecological protection shall be made quantitatively and chronologically.*

In view of the foregoing observations, the committee recommend to defer the proposal. The proposal shall be reconsidered after the above observations are addressed and submitted.

4.18 Finalization of ToR for proposed Ramky Multiproduct Industrial Park Near Gundrampalle & Veliminedu Villages, Chityala Tehsil, Nalgonda distt. Andhra Pradesh. M/s Ramky Multiproduct Industrial Park Ltd. F. No 21-25/2012-IA.III

As presented by the project proponent, the proposal is for development of Multiproduct Industrial Park to augment industrial infrastructure in the state of Andhra Pradesh. M/s Ramky Group has made MoU with Govt. of Andhra Pradesh during Partnership summit to set up Ramky Multiproduct Industrial Park.

The proposed Ramky Multiproduct Industrial Park lies within 17°13'47"N to 17°16'00"N latitude & 78°59'44"E to 79°02'19"E longitude and

located near Gundrampalle & Veliminedu Villages, Chityala Tehsil, Nalgonda district, Andhra Pradesh State. It is covered in Survey of India Toposheet No.56K/16, K/15, O/3 & O/4. The proposed industrial park is directly accessible from NH-9 with a frontage width of 70m.

The total land of 4000 Acres has been proposed to develop multiproduct industrial park in Phase-1 (2000 Acres) and Phase-2 (2000 Acres). Industrial segments like Pharma and Bio-tech Industry, Textile & Garmenting, Non-classified Mixed Industries, Knowledge & Specialty Chemicals, Food Processing and 300MW (Multi Fuel) Thermal Power Plant are proposed. Residential and Commercial infrastructure along with Facilities and Utilities (include TSDF and Integrated Recycling facility) are also proposed. Greenbelt has been proposed in total 30% area (i.e., 20% in industrial segments and 10% in residential, commercial, roads including boundary of industrial park).

The estimated population for multiproduct industrial park is 115549 numbers, which includes temporary industrial workers.

The total estimated water demand for the entire industrial park is ~120 MLD. Abstraction of water from Musi River/ Ground water/ Nagole STP treated water by laying a pipeline along the bed of Musi River/ Tapping from Nagarjuna Sagar/ Krishna River pipeline. Water requirement for the entire industrial park will be obtained in consultation with statutory authority and necessary permission will be obtained. Total wastewater generation will be 57.58MLD (52.22MLD from industrial segments and 5.36MLD from domestic). Sector-wise effluent treatment plant will be installed and the effluent will be segregated, treated and reused/ recycled or sent to CETP. The treated water from CETP will be reused, if any excesses will be discharged into nearby nallahs/ streams/ river after meeting the discharge standards stipulated. STP will be provided for treatment of domestic sewage from industrial, residential and commercial activities and treated water used for greenbelt development and flushing.

Power demand for proposed industrial park is ~386 MW. Energy required will be met from the nearest power grid and/or proposed thermal power plant within the industrial park.

Estimated solid waste (both industrial and domestic) generated will be ~511MT/Day (~476MT/Day from industrial & ~35MT/Day from domestic). Integrated Recycling Facility is proposed within the industrial park. Industrial hazardous wastes will be sent to nearby secured landfill/ incinerator (TSDF) or TSDF within the park. A scientific Waste Management Handling System would be put into practice for domestic waste. The System should entail basic segregation (organic/ inorganic in colored coded bins) of waste at source and transferred to nearest municipal bins or transfer stations or possibly to landfill.

During the discussions, the Committee finalized the following additional TOR for further study:

- (i) *Justification for the selection of site with the details of alternative sites evaluated.*
- (ii) *As proposed the treated water from STP at Nagole shall be used. The details shall be submitted.*
- (iii)** *Submit the MoU /legal framework on responsibilities of Park, Member Industries .*
- (iv) *Submit the details of anticipated impact due to the growth scenario/ induced developments because of the green field project. Impact due to influx of people due to project and all other associated activities or otherwise may be carefully projected and estimated. Commitments for environmental and ecological protection shall be made quantitatively and chronologically.*
- (v) *Examine in detail the proposed site with reference to impact on infrastructure covering water supply, storm water drainage, sewerage, power, etc., and the disposal of treated/raw wastes from the industrial estate on land/water body and into sewerage system.*
- (vi) *Study the socio-economic situation of the project area and its surroundings and their impact on the project design and operation.*
- (vii) *Study the existing flora and fauna of the area and the impact of the project on them.*
- (viii) *Study the hydrological and geo-hydrological conditions of the project area. Include a contour plan indicating slopes and showing drainage pattern and outfall.*
- (ix) *Storm water drainage and outfall may be described.*
- (x) *Rain water harvesting proposals should be made with due safeguards for ground water quality. Maximise recycling of water and utilisation of rain water.*
- (xi) *Examine soil characteristics, topography, rainfall pattern and soil erosion.*
- (xii) *Application of renewable energy/alternate energy, such as solar energy, wind energy may be described.*

- (xiii) *Management of wastes discharged by the industrial units and the service facilities, especially the CETP may be described.*
- (xiv) *Identification of recyclable wastes and waste utilisation arrangements may be made.*
- (xv) *Arrangements for hazardous waste management if any may be described.*
- (xvi) *Traffic management plan including parking and loading/unloading areas may be described. Traffic survey should be carried out on week days and week end.*
- (xvii) *Examine and submit details of Air quality monitoring as per latest National Ambient Air Quality standards as notified by the Ministry on 16th November, 2009.*
- (xviii) *Landscape plan, green belts and open spaces may be described. Examine and submit the details of the Green Belt. At least three rows-15 m width of green belt all along the boundary shall be provided.*
- (xix) *Environmental Management Plan should be accompanied with Environmental Monitoring Plan and environmental cost and benefit assessment.*
- (xx) *Examine separately the details for construction and operation phases both for Environmental Management Plan and Environmental Monitoring Plan.*
- (xxi) *Provide for conservation of resources, energy efficiency and use of renewable sources of energy in the light of ECBC code.*
- (xxii) *Submit the details of CSR activities.*
- (xxiii) *Other details as indicated in Appendix III of EIA Notification 2006 should also be attended.*

Public hearing to be conducted for the project as per provisions of Environmental Impact Assessment Notification, 2006 and the issues raised by the public should be addressed in the Environmental Management Plan.

A detailed draft EIA/EMP report should be prepared as per the above additional TOR and should be submitted to the Ministry as per the Notification.

4.19 Finalization of ToR for Karoli Area at Village Karoli (Tapukara Extension) distt Alwar, Rajasthan. M/s Rajasthan Industrial Development and Investment Corporation Ltd. F. No 21-28/2012-IA.III

The Committee decided to defer the project, since the project proponent did not attend the meeting.

4.20 Finalization of ToR for development of International Leather Complex (ILC) at Kothapatnam (V), Kota Mandal, SPS Nellore District M/s Krishnapatnam International Leather Complex Private Limited F.No. 21 ?29/ 2012 - IA.III

As presented by the project proponent the proposal involves development of International Leather Complex (ILC) at Kothapatnam (V), Kota Mandal, SPS Nellore District Andhra Pradesh. The leather industry occupies a place of prominence in the Indian economy in view of its massive potential for employment, growth and exports. There has been an increasing emphasis on its planned development, aimed at optimum utilization of available raw materials for maximizing the returns, particularly value added products from exports. The Department of Industrial Policy and Promotion (DIPP) through Ministry of Commerce and Industry, Govt of India has approved establishment of State-of-Art International Leather Complex (ILC) at SPSR Nellore District in Andhra Pradesh under Integrated Leather Development Programme (ILDPP) with a maximum assistance of Rs.30.00 crores. The Government of Andhra Pradesh is supporting the project through formation of a Special Purpose Vehicle (SPV) as “Krishnapatnam International Leather Complex Pvt Ltd (KPIILC)” with Andhra Pradesh Industrial Infrastructure Corporation Ltd (APIIC) and Leather Industries Development Corporation of Andhra Pradesh Limited (LIDCAP), both being undertakings of Government of Andhra Pradesh as the promoters. The proposed site is located at 1.6 Km to Kothapatnam village, Kota Mandal of SPSR Nellore District in an area of 536.88 acres. The site is about 27 Km from Gudur town (wherein N.H 5 and main railway line connecting Chennai and Kolkata are passing) and Krishnapatnam port, is about 12 km. Chennai Airport is the nearest international airport at about 170 Km.

The complex is intended for encouraging leather processing units which are involved in operations starting from processing raw hides and skins into finished leather. The total cost of the project on infrastructure is about Rs 172 Crores and will be developed in a span of 2 years. The ILC is expected to generate employment of about 15000 people mostly skilled and semi-skilled. It is of significance that the venture of establishment of ILC is first of its kind in the Country. The SPV is in the possession of 536.88 acres and no forest land or agriculture land within the project boundary of the proposed project. There are no land oustees and no need of demolishing any structures. In view of this, there is no need for R&R for the project

development. The project site does not fall under any CRZ zones. The coast line is about 1.7 km from the proposed site.

The proposed processing capacity of the complex is 200-300 tonnes of raw hides and skins per day. The water demand estimated for the ILC is around 10.5 MLD which is proposed to be met through Desalination plant and also by recycle and reuse systems.

The proposed complex master plan has integrated environmental management plan and implementation and its operation is owned by KPILC management. The land allotment to the individual units will be given only to those who agree to terms related to the environmental management plan of KPILC.

The comprehensive environmental management plan includes CETP with residual chrome recovery system apart from chrome recovery at individual unit level along with pretreatment. The individual plot size is allocated duly considering this aspect apart from the process requirements and size of operations. A secured engineered land fill for handling hazardous waste, bio-methanisation plant for handling biodegradable waste are part of this plan. The treated effluents shall meet marine discharge standards and shall be disposed into the Bay of Bengal through a marine outfall facility.

KPILC formed high level technical committee with eminent members well versed with the development of leather sector and in particular leather complexes in India and Abroad to review environmental management plans/reports/technologies of this project so as to ensure sustainable development.

The area is less than 500 ha however it is proposed to house Category 'A'- leather processing hence it is Category 'A' under 7 (c).

During the discussions, the Committee finalized the following additional TOR for further study:

- (i) Justification for the selection of site with the details of alternative sites evaluated.*
- (ii) Submit a copy of proposed facilities in CRZ area, superimposed on the HTL/LTL map demarcated by an authorized agency on 1:4000 scale.*
- (iii) Submit the recommendation of SCZMA*
- (iv) Submit the NOC from PCB for marine disposal*

- (v) *Submit the details of the byproducts generated*
- (vi) *Submit the MoU /legal framework on responsibilities of CETP, Member Industries and Final Effluent Treatment Plant.*
- (vii) *Submit the details CETP, design, etc,*
- (viii) *Cumulative impact on marine disposal shall be studied considering the other marine disposal in the vicinity*
- (ix) *Submit details of Risk Assessment, Disaster Management Plan including emergency evacuation during natural and man-made disaster like floods, cyclone, tsunami and earth quakes etc.*
- (x) *Submit the details of anticipated impact due to the growth scenario/ induced developments because of the green field project. Impact due to influx of people due to project and all other associated activities or otherwise may be carefully projected and estimated. Commitments for environmental and ecological protection shall be made quantitatively and chronologically.*
- (xi) *Examine in detail the proposed site with reference to impact on infrastructure covering water supply, storm water drainage, sewerage, power, etc., and the disposal of treated/raw wastes from the industrial estate on land/ water body and into sewerage system.*
- (xii) *Study the socio-economic situation of the project area and its surroundings and their impact on the project design and operation.*
- (xiii) *Study the existing flora and fauna of the area and the impact of the project on them.*
- (xiv) *Study the hydrological and geo-hydrological conditions of the project area. Include a contour plan indicating slopes and showing drainage pattern and outfall.*
- (xv) *Storm water drainage and outfall may be described.*
- (xvi) *Rain water harvesting proposals should be made with due safeguards for ground water quality. Maximise recycling of water and utilisation of rain water.*
- (xvii) *Examine soil characteristics, topography, rainfall pattern and soil erosion.*

- (xviii) *Application of renewable energy/alternate energy, such as solar energy, wind energy may be described.*
- (xix) *Management of wastes discharged by the industrial units and the service facilities, especially the CETP may be described.*
- (xx) *Identification of recyclable wastes and waste utilisation arrangements may be made.*
- (xxi) *Arrangements for hazardous waste management if any may be described.*
- (xxii) *Traffic management plan including parking and loading/unloading areas may be described. Traffic survey should be carried out on week days and week end.*
- (xxiii) *Examine and submit details of Air quality monitoring as per latest National Ambient Air Quality standards as notified by the Ministry on 16th November, 2009.*
- (xxiv) *Odour mitigation plan may be described. Also make provision of green belt as a measure for mitigation of dust and noise and buffer between habitation and industry.*
- (xxv) *Landscape plan, green belts and open spaces may be described. Examine and submit the details of the Green Belt. At least three rows-15 m width of green belt all along the boundary shall be provided.*
- (xxvi) *Environmental Management Plan should be accompanied with Environmental Monitoring Plan and environmental cost and benefit assessment.*
- (xxvii) *Examine separately the details for construction and operation phases both for Environmental Management Plan and Environmental Monitoring Plan.*
- (xxviii) *Provide for conservation of resources, energy efficiency and use of renewable sources of energy in the light of ECBC code.*
- (xxix) *The facilities to be provided in the industrial estate should be detailed out.*
- (xxx) *Make assessment of any regulatory measure in view of the environmental and social impacts of the project (such as unauthorised development around the estate).*
- (xxxi) *Submit the details of CSR activities.*

(xxxii) *Other details as indicated in Appendix III of EIA Notification 2006 should also be attended.*

Public hearing to be conducted for the project as per provisions of Environmental Impact Assessment Notification, 2006 and the issues raised by the public should be addressed in the Environmental Management Plan.

A detailed draft EIA/EMP report should be prepared as per the above additional TOR and should be submitted to the Ministry as per the Notification.

4.21 Finalization of ToR for the development of Industrial Model Township (IMT) at ROz -ka - Meo, Distt. Mewat, Haryana. M/s Haryana State Industrial and Infrastructure Development Corporation Ltd. F.No. 21 -36/ 2012 - IA.III

As presented by the project proponent, the proposal is for development of Industrial Model Township (IMT) at ROz -ka - Meo, Distt. Mewat, Haryana. IMT involves construction of on a plot area of 68,43,932 m² or 684 ha. Proposed area under industrial plot is 493.9 acres. Total Green area of 14,169 Sq.m will be provided. Green area along internal roads is 44,108 Sq.m & green belt along KMP is 3,31,310 Sq.m. The total water requirement is 37.35 MLD (Fresh water requirement = 30 MLD). The source of the water is borewells. The effluent generation is about 25 MLD and capacity of CETP is about 25 KLD. The total power requirement is 157.88 MW. DG sets of 125 KVA capacity is proposed only for water pumping zone. The total cost of the project is about Rs. 938.19 Crores. Different types of industries will be proposed in Industrial Estate. Some of them are:

- General Manufacturing Industries
- Garments Industries
- Electronics & Electrical Industries
- Sports goods manufacturing industries
- CMC machines industries (automobiles)
- Sheet metal component industries
- Auxiliary industries
- CETP

The area is more than 500 ha and CETP a Category 'B' is proposed hence it is Category 'A' under 7 (c).

During the discussions, the Committee finalized the following additional TOR for further study:

- (i) Justification for the selection of site with the details of alternative sites evaluated.*
- (ii) As proposed the treated water from STP at Nagole shall be used. The details shall be submitted.*
- (iii)** *Submit the MoU /legal framework on responsibilities of Park, Member Industries .*
- (iv) Submit the details of anticipated impact due to the growth scenario/ induced developments because of the green field project. Impact due to influx of people due to project and all other associated activities or otherwise may be carefully projected and estimated. Commitments for environmental and ecological protection shall be made quantitatively and chronologically.*
- (v) Examine in detail the proposed site with reference to impact on infrastructure covering water supply, storm water drainage, sewerage, power, etc., and the disposal of treated/raw wastes from the industrial estate on land/ water body and into sewerage system.*
- (vi) Study the socio-economic situation of the project area and its surroundings and their impact on the project design and operation.*
- (vii) Study the existing flora and fauna of the area and the impact of the project on them.*
- (viii) Study the hydrological and geo-hydrological conditions of the project area. Include a contour plan indicating slopes and showing drainage pattern and outfall.*
- (ix) Storm water drainage and outfall may be described.*
- (x) Rain water harvesting proposals should be made with due safeguards for ground water quality. Maximise recycling of water and utilisation of rain water.*
- (xi) Examine soil characteristics, topography, rainfall pattern and soil erosion.*

- (xii) *Application of renewable energy/alternate energy, such as solar energy, wind energy may be described.*
- (xiii) *Management of wastes discharged by the industrial units and the service facilities, especially the CETP may be described.*
- (xiv) *Identification of recyclable wastes and waste utilisation arrangements may be made.*
- (xv) *Arrangements for hazardous waste management if any may be described.*
- (xvi) *Traffic management plan including parking and loading/unloading areas may be described. Traffic survey should be carried out on week days and week end.*
- (xvii) *Examine and submit details of Air quality monitoring as per latest National Ambient Air Quality standards as notified by the Ministry on 16th November, 2009.*
- (xviii) *Landscape plan, green belts and open spaces may be described. Examine and submit the details of the Green Belt. At least three rows-15 m width of green belt all along the boundary shall be provided.*
- (xix) *Environmental Management Plan should be accompanied with Environmental Monitoring Plan and environmental cost and benefit assessment.*
- (xx) *Examine separately the details for construction and operation phases both for Environmental Management Plan and Environmental Monitoring Plan.*
- (xxi) *Provide for conservation of resources, energy efficiency and use of renewable sources of energy in the light of ECBC code.*
- (xxii) *Submit the details of CSR activities.*
- (xxiii) *Other details as indicated in Appendix III of EIA Notification 2006 should also be attended.*

Public hearing to be conducted for the project as per provisions of Environmental Impact Assessment Notification, 2006 and the issues raised by the public should be addressed in the Environmental Management Plan.

A detailed draft EIA/EMP report should be prepared as per the above additional TOR and should be submitted to the Ministry as per the Notification.

4.22 Finalization of ToR for development of Industrial Estate at IMT, Ph-II (balance area), Rohtak, Haryana. M/s Haryana State Industrial and Infrastructure Development Corporation Ltd. F.No. 21 -37/ 2012 - IA.III

As presented by the project proponent, the proposal is for development of Industrial Estate at IMT, Ph-II (balance area), Rohtak, Haryana. The Industrial Estate at IMT Rohtak Phase II, Rohtak, Haryana; involves development of a 1,893 acres of plot. The area is planned for setting up of industrial, institutional, godowns, hotel, hospital, R & R area. The proposed area for industrial plots is 834.36 acres and different type of industries are proposed as general manufacturing industries, automobile industries, mechanical, R & D industries, Garments and electronic industries. The water requirement is estimated to be 23.13 MLD. A CETP is proposed of 24 MLD with 3 modules of 8 MLD each to treat the effluents form the industrial area. One substation of 132 KVA is proposed and source of electricity will be from UHBVN. The development cost of the project is about Rs. 672 Crores.

During the discussions, the Committee finalized the following additional TOR for further study:

- (i) Justification for the selection of site with the details of alternative sites evaluated.*
- (ii) As proposed the treated water from STP at Nagole shall be used. The details shall be submitted.*
- (iii) Submit the MoU /legal framework on responsibilities of Park, Member Industries .*
- (iv) Submit the details of anticipated impact due to the growth scenario/ induced developments because of the green field project. Impact due to influx of people due to project and all other associated activities or otherwise may be carefully projected and estimated. Commitments for environmental and ecological protection shall be made quantitatively and chronologically.*
- (v) Examine in detail the proposed site with reference to impact on infrastructure covering water supply, storm water drainage, sewerage, power, etc., and the disposal of treated/raw wastes*

from the industrial estate on land/water body and into sewerage system.

- (vi) Study the socio-economic situation of the project area and its surroundings and their impact on the project design and operation.*
- (vii) Study the existing flora and fauna of the area and the impact of the project on them.*
- (viii) Study the hydrological and geo-hydrological conditions of the project area. Include a contour plan indicating slopes and showing drainage pattern and outfall.*
- (ix) Storm water drainage and outfall may be described.*
- (x) Rain water harvesting proposals should be made with due safeguards for ground water quality. Maximise recycling of water and utilisation of rain water.*
- (xi) Examine soil characteristics, topography, rainfall pattern and soil erosion.*
- (xii) Application of renewable energy/alternate energy, such as solar energy, wind energy may be described.*
- (xiii) Management of wastes discharged by the industrial units and the service facilities, especially the CETP may be described.*
- (xiv) Identification of recyclable wastes and waste utilisation arrangements may be made.*
- (xv) Arrangements for hazardous waste management if any may be described.*
- (xvi) Traffic management plan including parking and loading/unloading areas may be described. Traffic survey should be carried out on week days and week end.*
- (xvii) Examine and submit details of Air quality monitoring as per latest National Ambient Air Quality standards as notified by the Ministry on 16th November, 2009.*
- (xviii) Landscape plan, green belts and open spaces may be described. Examine and submit the details of the Green Belt. At least three rows-15 m width of green belt all along the boundary shall be provided.*

- (xix) *Environmental Management Plan should be accompanied with Environmental Monitoring Plan and environmental cost and benefit assessment.*
- (xx) *Examine separately the details for construction and operation phases both for Environmental Management Plan and Environmental Monitoring Plan.*
- (xxi) *Provide for conservation of resources, energy efficiency and use of renewable sources of energy in the light of ECBC code.*
- (xxii) *Submit the details of CSR activities.*
- (xxiii) *Other details as indicated in Appendix III of EIA Notification 2006 should also be attended.*

Public hearing to be conducted for the project as per provisions of Environmental Impact Assessment Notification, 2006 and the issues raised by the public should be addressed in the Environmental Management Plan.

A detailed draft EIA/EMP report should be prepared as per the above additional TOR and should be submitted to the Ministry as per the Notification.

4.23 Environmental clearance for proposed Construction of Residential Development, Thaiyur Village, Chengalpet, Kancheepuram District by M/s. K.S. Realty Constructions Pvt. Ltd. [F.No.SEIAA/F394/2010]

As presented by the project proponent, the proposal is for construction of Residential Township by K S Realty Constructions Pvt. Ltd .at OMR Road, Thaiyur village, Chengalpet Taluk, Kancheepuram District, Tamil Nadu. The plot area is 78222 m². The total built up area is 2,52,151.20 m². Greenbelt area is 26874.20 m². The project consists of 24 Towers, each tower having 1 Stilt + 1 Basement + 19 floors. Estimated population to step-in will be 10653. Parking area facilities is provided for Cars: 1826 No. (Basement: 1122, Stilts: 149, Surface: 555) and Two Wheelers: 367. The total power requirement for the project is 12650 kVA and Power back up through DG sets is 3390 kVA (3 x 750 KVA + 2 x 320 KVA +2 x 250 KVA). The source of water is Ground water. The total water requirement is 1589 KLD out of which fresh water requirement is 993 KLD. Quantity of sewage generated is 1305 KLD. Generated Sewage will be treated in 3 Nos. of STPs of 200, 600 and 700 KLD. Total capacity of STP 1500 KLD. The treated sewage generated is 1305 KLD of which 502 KLD is to be used for flushing, 94KLD gardening and the rest 709 KLD will be sent to external RMC Suppliers. The organic waste, 3180 Kg/day will be decomposed by Organic Waste Converter. Inorganic waste of 3920 kg/day is to be disposed

to authorized recyclers. STP sludge 735 kg/day is to be used as manure for Gardening and Landscaping purpose.

The project was examined by the EAC in its meeting held on 5th -7th March, 2012 and finalized ToR. The details submitted and presented by the proponent were examined.

During the discussion, the following points emerged:

- i) Improve the traffic circulation and enhance the car parking requirement based on the norms of MoEF and submit the MoEF.*
- ii) As proposed in the EMP, the solar water heater system shall be provided in all the buildings.*

The committee recommends the proposal for Environmental Clearance with the above conditions in the clearance letter for strict compliance by the project proponent.

4.24 Environmental clearance for proposed Residential Complex Prestige Bella Vista at Ayyappanthangal Village, Sriperumbudhur Taluk, Kanchipuram District by M/s. Prestige Estates Projects Pvt. Ltd. [No.SEIAA/F430/2011]

The Committee decided to defer the project, as it was included due to oversight and proponent also did not attend the meeting.

4.25 Environmental clearance for widening and up gradation of existing carriageway 2-lane with paved shoulders in Jhalawar Biaora section of NH-12 in the State of Rajasthan by M/s NHA [F.No. 10-70/2010 - IA-III]

M/s NHA requested to defer the project and consider 'Environmental and CRZ clearance for development of the existing two lane carriageway to 4/6 Laning of Karnataka - Kerala Border to Kannur Section (Km 17.200 to Km 148.400) of NH-17 in the state of Kerala

As presented by the project proponent, the proposal is for development of the existing two lane carriageway to 4/6 Laning of Karnataka - Kerala Border to Kannur Section (Km 17.200 to Km 148.400) of NH-17 in the state of Kerala. The project road starts from Karnataka - Kerala Border at Km. 17.200 junction and ends at Kannur at Km 148.400. Total existing length of the project road is 131.200 Km. The total proposed length of the project road is 126.623 Km. Predominantly the road is passing through plain terrain with some rolling and hilly terrain. The land use pattern of the project area is Agriculture, Built-up, Government & Barren. Project Road passes through 138 settlements of various sizes. The Project Road does not pass through any National Park / Sanctuary / Wild Life Area. However passes through

CRZ I (i), I (ii) & III as per CZMP in 10 areas. The existing right of way is varies from 25 to 47 m on an average. The proposed right of way is 45 m throughout. Total 303.27 Ha of land is proposed to be acquired for the improvement of the project, out of which Bypasses shall require 44.5 Ha., Bus bays 2.85 Ha., Service roads 1.98 Ha., Widening 230.56 Ha., Toll plaza 9.40 Ha. and rest areas & amenities 13.85 Ha. No forest land involved in the project. 9 major bridges, 12 Minor bridges, 17 pipe culverts, 246 box / slab culverts & 1 ROB present in the existing road. 11 major bridges, 11 Minor bridges, 16 pipe culverts, 246 box / slab culverts, 2 Grade Separator, 2 ROB, 82 Bus shelters, 2 truck lay byes, 2 parking and rest area & 2 Toll Plazas has been proposed. Service road of 7.200 km has been proposed along the project road at 2 locations. 2 Bypasses for Payyannur (4.100 Km) & Thaliparambha (5.670 Km), 2 major realignments for a total length of 2.900 Km and 35 minor realignments (11.700 Km) are proposed. Total 260.80 KLD water shall be required for construction and other purposes.

There is no provision of Fly Ash as there are no Thermal power plants. Approx 7809 trees are affected due to proposed road, against which avenue plantation along the road side is proposed apart from the statutory requirement. There would be about 2110 project affected families due to the improvement of project road. The entitled person shall be compensated according to the provision of NH Act 1956. The budget for environmental management works is Rs. 12.421 crore. The total civil cost of the project. is Rs. 924.57 crores. The total project cost of the project including Civil Works & Physical and price contingencies, IDC and other financing cost etc. is Rs. 1157.16 crores.

The EAC examined the project in its meeting held on August , 2007 and finalized ToR. Committee sought recommendation of SCZMA since the roads passes through CRZ-I(i), CRZ-I(ii) and CRZ-III as per the approved CZMP in 10 locations. Kerala CZMA recommended the project with a conditions that in Mangrove area the road shall be constructed on stilts. Public Hearing conducted on...

During the discussion, the following points emerged:

- i) *Elevated pathways shall be constructed over mangrove areas and intertidal area in order to protect the mangrove ecosystem'.*
- ii) *The mangroves disturbed duo to the pillar on mangrove areas, compensatory mangroves shall be carried out in consultation with Forests Division.*
- iii) *The project indicates cutting of 7809 trees for the widening of the road. Necessary prior permission shall be obtained for cutting of trees from the competent authority. Compensatory afforestation shall be carried out as per stipulated conditions of MoEF and State Forest Division.*

- iv) *Rain water harvesting including oil and grease trap shall be provided. Water harvesting structures shall be located at every 500 mts along the road. Vertical drain type rainwater harvesting structures shall be set up to minimize surface runoff losses of rainwater.*
- v) *R&R shall be as per the guidelines of State/ Central Government.*
- vi) *IRC guidelines shall be followed for widening & up-gradation of road.*
- vii) *The responses/commitments made during public hearing shall be complied with letter and spirit.*
- viii) *All the recommendation of the EMP shall be complied with letter and spirit. All the mitigation measures submitted in the EIA report shall be prepared in a matrix format and the compliance for each mitigation plan shall be submitted to MoEF along with half yearly compliance report to MoEF-RO.*
- ix) *The committee noted that the EIA prepared in 2007 and no Public Hearing conducted. Committee suggested to update the EIA and conduct Public Hearing.*

In view of the foregoing observations, the committee recommend to defer the proposal. The proposal shall be reconsidered after the above observations are addressed and submitted.

4.26 Environmental clearance for widening and improvement of existing carriageway to 4/6 Laning of Meerut-Bulandshahar section (Km 0+0000 to Km 66+482) of NH-235 in Uttar Pradesh by M/s NHAI. [F.No. 10-24/2011-IA-III]

As presented by the project proponent, the proposal involves Bookman Old Style. The project road starts at Km 7.469 near Meerut city limits and ends at Km 66.482 at Bulandshahar town. The project road is situated in Meerut, Ghaziabad and Bulandshahar districts in the State of Uttar Pradesh. There are 4 congested stretches where bypass have been proposed in totaling length of 25.903 km. There is no realignment on the proposed alignment. The land use along the project road is predominantly agricultural and built-up villages and towns. The tentative percentage distribution of land use is 10%, 43% & 47% for Semi Built-up, Built-up, and agricultural, respectively. The existing Right of Way (RoW) is approx. 30 m - 35 m except in semi-urban and urban stretches where it varies from 20 m to 25m. The proposed ROW is 60m except in built-up areas where it is 45m. Approximately 253.6 ha of land will be acquired for four laning of the project

road; which includes 105.5 ha for widening and toll plaza and 148.1 ha land for bypasses.

The project road does not pass through Reserved Forest. However, project road will involve 92.63 ha diversion of protected forest land. Due to four laning of the project road, approximately 14386 trees are likely to be felled. The project road does not pass through any sensitive area like wildlife sanctuary, national park and bio-reserve. There is no environmental sensitive location within 10 km distance from the project road. Four laing of the project road will not impact any pond or water body. There are 1 major bridge, 6 minor bridges, 67 culverts (pipe, slab and box culverts) on the project road. The proposed alignment will have 1 major bridge, 6 nos. minor bridges, 1 ROB and 58 nos. culverts. Three vehicular underpasses and four cattle/pedestrian underpasses have been proposed in the alignment. Bus bay at 4 nos. locations and bus shelters have been proposed at 11 nos. locations. Truck lay byes have been provided at 1 no. location. There are 10 major junctions and 68 minor junctions, which are proposed to be improved. One Toll plaza is proposed at near km 43.

The project road passes through 17 villages and towns, out of which 8 villages/towns are in Meerut District, 4 villages/towns are in Ghaziabad District and 5 villages/towns are in Bulandshahr District. Due to four laning of the project road, about 146 structures (houses and shops) may be affected and compensated as per National Highways Act. Tentative cost of implementation of EMP will be Rs 7.65 Crores. Land Acquisition and R&R Cost is estimated as Rs. 70.7 Crores. The civil construction cost of project is Rs. 418 Crores as per 2010-2011 prices.

The project was examined by the EAC in its meeting held on 17th - 19th August, 2011 and finalized ToR including conduct of Public Hearing. The Public Hearing was conducted on 21.03.2012 at Bachat Bhawan Meerut, 26.04.2012 at Hapur, Panchsheel Nagar District and 16.04.2012 at Baral, Bulandshahar District.

During the discussion, the following points emerged:

- i) *The proposal requires 92.63 ha. of protected forests. Necessary Stage-I permission for diversion of forest area shall be submitted.*
- ii) *The project indicates 14386 trees fall within the proposed ROW. However bare minimum shall be cut. Avenue plantation shall be carried out as per IRC (SP-21-2009) apart from statutory requirement based on land availability of land within proposed ROW. Compensatory afforestation of will be carried out Necessary prior permission shall be obtained for cutting of trees from the competent authority.*
- iii) *Fly ash shall be used in the project.*

- iv) *Rain water harvesting including oil and grease trap shall be provided. Water harvesting structures shall be located at every 500 mts along the road. Vertical drain type rainwater harvesting structures shall be set up to minimize surface runoff losses of rainwater.*
- v) *R&R shall be as per the guidelines of State/ Central Government.*
- vi) *IRC guidelines shall be followed for widening & up-gradation of road.*
- vii) *The responses/commitments made during public hearing shall be complied with letter and spirit.*
- viii) *All the recommendation of the EMP shall be complied with letter and spirit. All the mitigation measures submitted in the EIA report shall be prepared in a matrix format and the compliance for each mitigation plan shall be submitted to MoEF along with half yearly compliance report to MoEF-RO.*

The Committee recommends the proposal for Environmental Clearance with the above condition in the Clearance letter for strict compliance by the project proponent.

4.27 Environmental clearance for rehabilitation & upgradation of existing carriageway of Kishangarh, Udaipur, Ahmedabad section of NH-79A, NH-76 and NH-8 for km. 0.830 on NH-79 at Kishangarh and ends near Ahmedabad Km 509.259 on NH-8 including Udaipur Bypass in the State of Rajasthan and Gujarat by NHAI (F.No. 10-37/2011-IA-III).

As presented by the project proponent, the proposal involves rehabilitation & upgradation of existing carriageway of Kishangarh, Udaipur, Ahmedabad section of NH-79A, NH-76 and NH-8 for km. 0.830 on NH-79 at Kishangarh and ends near Ahmedabad Km 509.259 on NH-8 including Udaipur Bypass in the State of Rajasthan and Gujarat. The project road starts from km 0.830 on NH 79A in Kishangarh and ends in km 509.295 on NH 8 near Ahmedabad. The project road passes through Ajmer, Bhilwara, Chittorgarh, Udaipur, & Dungarpur districts of Rajshtan state and Sabarkantha & Gandhinagar districts of Gujarat state. A bypass is proposed in for Udaipur town (about 24.50km) to avoid the congestion. The bypass is start at km 117.750 of NH 76 and ends at km 287.000 of NH 8. The terrain is generally plain except some stretches on Bhilwara bypasses, near proposed Udaipur bypass, Khairwara, Bichiwara and Shamala ji, are in hilly. The existing ROW width varies generally from 30 to 60 m. The proposed ROW width is 60m generally except at toll plazas bus-bye and truck lay-bye locations.

The project road does not pass through any protected area like wildlife sanctuary, national park, biosphere reserve, etc within 10 km radius area. The project road crosses river Wagan, a perennial water body. Diversion of 73.4156ha Reserved Forest (RF) land & 9.4500ha Protected Forest (PF) land will involve in Rajasthan state, and, diversion of 173.3900 ha PF (road side plantation) will involve in Gujarat state for the proposed six laning. 75.0 ha. Ha of land has been allotted by the District Administration against the diversion of Forest land.

Total 38,213 trees are likely to be felled for six laning of the project road (29,655 trees in Rajasthan State and 8,558 trees in Gujarat State) . In the proposed six lane road, 9no existing major bridges, 254no existing minor bridges, 455 existing box/slab type culverts will be retained and widened/reconstructed. Also 7no new major bridges, 104 no. of new minor bridges(20 on main carriageway & 84no on service roads proximity to existing main carriageway)and 30no new culverts are proposed to be constructed. There are additionally 38no vehicular underpasses and 114 no pedestrian/cattle underpasses are proposed in the project road. Service roads are available at 62 locations amounting to 72.30km length. In the proposed project 65.965km of existing Length of service road are to be widened and strengthened and 444.34 km length of service road are additionally proposed. Bus Bays have been provided at 120 locations and truck lay byes at 41 locations. All major junctions (59no) and minor junctions (420no) will be improved in the project road. Toll plaza is proposed on the project road at 8 locations.

Quantity of fly-ash is proposed to be utilized for embankment on the project road as per IRC-SP-58-2001 is 10,000 cum from Thermal Power Plant situated within 100 km. Thermal Power Plants which exist within 100km either side of the project road are as Surat Thermal Power Plant, Surat, Dhuvaran Thermal Power Plant, Anand, Gandhinagar Thermal Power Plant, Gandhinagar, Vankbori Thermal Power Plant, Sevalia, and Sabarmati Themal Power Plant. For construction of the project road, estimated average water requirement is about 10,560 kl/km, which will be met mostly from surface water resources. Approximately 451.59 ha (74.78 in Gujarat and 376.81 ha in Rajasthan) land will be acquired for six laning of the project road including Udaipur bypass. There are 3,127 private properties including residential, commercial and residential-cum-commercial structures, 235 community properties, 183 religious properties within the existing ROW (22.5 to 30 meter each side from the center line of the existing carriageway) of both Rajasthan State and Gujarat State. Affected families will be compensated as per National Highways Act. The budget for environment management and monitoring has been earmarked as approximately Rs. 27.76 Crores. The estimated cost for Resettlement & Rehabilitation is approximately Rs. 344.2 Crores. The Total Civil Cost is Rs. 5,387.30 Crores. The Total Estimated Cost of the project is Rs 5,759.26 crores

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The proposal was examined by the EAC in its meeting held on 23rd - 24th July, 2011 and finalized ToR including conduct of Public Hearing. Public Hearing conducted in Rajasthan on 13.03.2012 at Udaipur district, 16.03.2012 at Chittirgarh District, 21.03.2012 at Dungarpur District, 09.04.2012 at Bhilwara District, 16.04.2012 at Ajmer District, in Gujarat on 23.03.2012 at Sabarkantha District, 17.04.2012 at Gandhi Nagar.

During the discussion, the following points emerged:

- (i) *The proposal requires 73.415 ha. of Reserve Forest and 9.45 ha of protected forests. Necessary Stage-I permission for diversion of forest area shall be submitted.*
- (ii) *The project indicates 38213 trees fall within the proposed ROW. However bare minimum shall be cut. Avenue plantation shall be carried out as per IRC (SP-21-2009) apart from statutory requirement based on land availability of land within proposed ROW. Compensatory afforestation of will be carried out Necessary prior permission shall be obtained for cutting of trees from the competent authority.*
- ix) *Fly ash shall be used in the project.*
- x) *Explore the possibilities for utilizing the unharmed Industrial waste/slag / marble waste of the nearby vicinity viz Hindustan Zinc Ltd in keeping the IRC norms.*
- xi) *Rain water harvesting including oil and grease trap shall be provided. Water harvesting structures shall be located at every 500 mts along the road. Vertical drain type rainwater harvesting structures shall be set up to minimize surface runoff losses of rainwater.*
- xii) *R&R shall be as per the guidelines of State/ Central Government.*
- xiii) *IRC guidelines shall be followed for widening & up-gradation of road.*
- xiv) *The responses/commitments made during public hearing shall be complied with letter and spirit.*
- xv) *All the recommendation of the EMP shall be complied with letter and spirit. All the mitigation measures submitted in the EIA report shall be prepared in a matrix format and the compliance for each mitigation plan shall be submitted to MoEF along with half yearly compliance report to MoEF-RO.*

The Committee recommends the proposal for Environmental

Clearance with the above condition in the Clearance letter for strict compliance by the project proponent.

4.28 Finalization of ToR for widening and rehabilitation of existing 2 lane to 2 lane with paved shoulder of NH-148 D from junction of NH-8 and Bheem, chaingae at NH-8 from km 109.750 in Rajas, and distt and ends at 64.200 of Nh-79 at Gulabpura in Bhilwara distt in the State of Rajasthan by M/s NHAH [F.No. 10-44/2012-IA-III]

M/S NHAH requested to defer the project and consider 'Finalisation of ToR for rehabilitation of existing 2-lane to 4 lane of Kaithal to Narwana and Narwana to Rajasthan Border section of NH-65 in the State of Haryana (10-46/2012-IA-III)'

As presented by the project proponent, the proposal involves rehabilitation of existing 2-lane to 4 lane of Kaithal to Narwana and Narwana to Rajasthan Border section of NH-65 in the State of Haryana.

Total length of four lane road will be 165.759 Km. The land use along the project road is predominantly agricultural and built-up villages and towns. The percentage distribution of land use comprises vegetation 6.9 %, open vegetation 11.6 %, cultivated land 61.9 %, built-up land 18.2 %, road & rail network 1.2 % and river/water body 0.2 %. The existing Right of Way (RoW) is 20 m to 25 m. The proposed ROW is 60m except in built-up areas where it is 30 m and 45 m. 724.5 ha of land will be acquired for four laning of the project road and for bypasses and realignment. The project road does not pass through Reserved Forest. However, project road will involve 169.8 ha diversion of protected forest land. Due to four laning of the project road, 27453 trees are likely to be felled. The project road does not pass through any sensitive area like wildlife sanctuary, national park and bio-reserve. There is no environmental sensitive location within 10 km distance from the project road. Four laning of the project road, Kalayat Bypass (Km 15.100 to km 18.550 = 3.450 km), Narwana Bypass (Km 30.500 to km 32.400 = 1.900 km), Dhnaudha Bypass (Km 46.300 to km 50.100 = 3.800 km), Barwala Bypass (Km 70.100 to Km 77.950 = 7.850 km), Talwandi Rana and Hisar Bypass (Km 96.500 to Km 122.400 = 25.90 km), Barwa Bypass (Km 138.350 to Km 141.650 = 3.300 km) and Siwani Bypass (Km 143.500 to Km 149.650 = 6.150 km). Realignment are proposed at (km 130+400 to km 130+650), (km 140+360 to km 140+760), (km 142+600 to km 142+870), (km 217+500 to km 217+790), (km 218+120 to km 218+540), (km 230+520 to km 230+800), (km 232+050 to km 232+900) and (km 233+400 to km 235+300). Total length of realignments is 4.430 km. There is no major bridge, 8 minor bridges, 219 culverts (pipe, slab and box culverts) on the project road which will be widened. After four laning, there will be total 13 nos. minor bridges and 241 nos. of culverts on the project road. Five vehicular underpasses and 26 cattle/pedestrian underpasses have been proposed in the alignment. Service lane have been proposed in 9.450 km length at 14 locations. Bus bay at 26 locations and truck lay byes have been

proposed at 4 location. There will 15 major junctions and 43 minor junctions, which are proposed to be improved. Toll plaza is proposed at three locations. Due to four laning of the project road, about 352 structures (houses and shops) may be affected and compensated as per National Highways Act. Tentative cost of implementation of EMP will be Rs 12.8 Crores. Land Acquisition and R&R Cost is estimated as Rs. 328 Crores. The civil construction cost of project is Rs. 1097 Crores as per 2010-2011 prices.

During the discussions, the Committee finalized the following TOR for further study:

- (i) The proposal indicates the acquisition of 169.8 ha Protected Forest land. Necessary stage –I forestry clearance shall be obtained as per OM dated 31.03.2011 and submitted along with final EIA report.*
- (ii) It is indicated that approximately 27453. nos. trees falls within ROW, however, bare minimum trees shall be cut, the information should be provided about their species and whether it also involved any protected or endangered species. Necessary green belt shall be provided on both side of the highway with proper central verge and cost provision should be made for regular maintenance.*
- (iii) The additional ToR and General Guidelines as per the annexure-I and Annexure-II respectively to this Minutes shall also be considered for preparation of EIA/EMP.*
- (iv) Submit the details of the road safety audit and plans for meeting the IRC safety requirements.*

Any further clarification on carrying out the above studies including anticipated impacts due to the project and mitigative measure, project proponent can refer to the model ToR available on Ministry website “<http://moef.nic.in/Manual/Highways>”.

Public hearing to be conducted for the project as per provisions of Environmental Impact Assessment Notification, 2006 and the issues raised by the public should be addressed in the Environmental Management Plan.

A detailed draft EIA/EMP report should be prepared as per the above additional TOR and should be submitted to the Ministry as per the Notification.

4.29 Finalization of ToR for widening and upgradation of existing 4 lane to 6 lane of section of NH-2 (starts near Khokhraj about 2 km

before the Allahabad Bypass and ends at Varanasi) from Km 628.753 to Km 785.859 covering total length of 157.106 Km under NHDP phase-V. F. No. 10-98 /2011-IA-III)

M/S NHA I requested to defer the project and consider 'Finalisation of ToR for widening & rehabilitation of existing 2 lane to 4 lane of Rajasamand to Bhilwara section of NH-758 in the State of Rajasthan(10-45/2012-IA-III)'

As presented by the project proponent, the proposal involves widening & rehabilitation of existing 2 lane to 4 lane of Rajasamand to Bhilwara section of NH-758 in the State of Rajasthan. The project road starts from Rajsamand at Km. 0.000 at NH- 08 at Kakroli junction and ends at Bhilwara at Km 86.550 at NH-758 junction of NH-79 Flyover, Total existing length of the project road is 86.550 Km. The proposed starting point is Rajsamand at Km 0.000 and end point is Km 87.250 at Bhilwara. The total proposed length of the project road is 87.250 Km. Predominantly the road is passing through plain terrain. The land use pattern of the project area is Agriculture, Built-up, Government & Barren. Project Road passes through Piprada, Salempura, Jawad, Ghoinda, Bhawa, Madri, Kuanrian, Phiyari, Khandel, Lapsaya, Potlan, Sahada, Gangapur, Bhunas, Karoi, Gurla, Manjuras, Pur settlements of various sizes. The Project Road does not pass through any National Park / Sanctuary / Wild Life Area. The existing right of way is varies from 15 to 30 m on an average. The proposed right of way is 60 m throughout. Total 296.052 Ha of land is proposed to be acquired for the improvement of the project, out of which Bypasses is 85.644 Ha., realignments is 32.970 Ha., Widening is Ha.173.830, Toll plaza Ha 3.608. No Forest land is required for diversion for widening of the project road. 1 major bridge, 14 Minor bridges, 135 Slab / box culverts, 82 pipe culverts & No Toll Plaza are in the existing road. 1 major bridges, 15 Minor bridges, 47 pipe culverts & 208 Slab / Box culverts, 3 vehicular underpass, 6 pedestrian underpasses, 1 ROBs, 40 Bus shelters, 2 Toll Plaza has been proposed. Service / Slip road of 12.452 km have been proposed along the project road at 9 locations. 4 Bypasses for Kunwaria (2.450 Km.), Potlan (2.550 Km.), Karoi (3.600 Km.) & Pur (6.920 Km) and 9 major realignments for a total length of 6.189 Km at Ghoinda, Rajsamand, Kunwaria, Gaumata Chauraha, Bhunash, Ganeshpura and 3 minor realignments for a total length of 0.856 Km at Gudla, Shivnagar Colony, Somnath Chauraha are proposed.

Total 147.67 KLD water shall be required for construction and other purposes. There is no provision of Fly Ash as there are no Thermal power plants. Ranjeet Sagar Lake & Rajsamand Lake / Waterbody near existing project road have been avoided by design modifications. There are a few manmade water-bodies along the road stretch. Approx 5794 trees are affected due to proposed road, against which avenue plantation along the road side is proposed apart from the statutory requirement. There would be

about 149 project affected families due to the improvement of project road. The entitled person shall be compensated according to the provision of NH Act 1956. The environmental management cost is Rs. 16.791 crores. The total civil construction cost for the project is 550.81 crores while the total project cost is Rs. 971.53 crores

During the discussions, the Committee finalized the following TOR for further study:

- (i) It is indicated that approximately 5794. nos. trees falls within ROW, however, bare minimum trees shall be cut, the information should be provided about their species and whether it also involved any protected or endangered species. Necessary prior permission shall be obtained for cutting of trees from the competent authority. Compensatory afforestation shall be carried out as per stipulated conditions of MoEF and State Forest Division.*
- (ii) The additional ToR and General Guidelines as per the annexure-I and Annexure-II respectively to this Minutes shall also be considered for preparation of EIA/EMP.*
- (iii) Submit the details of the road safety audit and plans for meeting the IRC safety requirements.*

Any further clarification on carrying out the above studies including anticipated impacts due to the project and mitigative measure, project proponent can refer to the model ToR available on Ministry website "<http://moef.nic.in/Manual/Highways>".

Public hearing to be conducted for the project as per provisions of Environmental Impact Assessment Notification, 2006 and the issues raised by the public should be addressed in the Environmental Management Plan.

A detailed draft EIA/EMP report should be prepared as per the above additional TOR and should be submitted to the Ministry as per the Notification.

4.30 Finalization of ToR for 4-laning of Beawar - Gomati section from km. 147.00 to Km 177.050 on NH-8 in the State of Rajasthan by DCM, Ajmer Road, Jaipur, Rajasthan. (F.No.10-41/2012-IA-III).

As presented by the project proponent, the proposal involves 4-laning of Beawar - Gomati section from km. 147.00 to Km 177.050 on NH-8 in the State of Rajasthan by DCM, Ajmer Road, Jaipur, Rajasthan. The proposed section starts from km 147.000 near Baghana and ends at Km 177.050 near Gomati covering length of about 30 kilometers. The project road falls in Rajsamand district of Rajasthan. Land use pattern of the project area is mainly agriculture and forest land. The existing carriageway is 2-lane

flexible pavement of 7m width 1.5 m paved shoulder and 1.0 m earthen shoulder at both sides and proposed is 4-lane divided with 7.25 m carriageway with 0.6 m median and 1.0 m line drain. Existing ROW Varies from 23m to 60m. The proposed RoW is 60 m. Total land requirement for the project will be 120 ha. 19 ha of protected forest land and 52 ha sanctuary / reserve forest land need to be diverted, as the existing alignment passes through road side plantation declared as protected forest. The alignment is passing through Todagarh Wild Life Sanctuary between km 148.00 near Baghana and km 162.000 near Bassi village in Rajsamand district. The core portion of sanctuary is away from project road. Approximately 2506 trees proposed to be felled for the 4-laning of project road. There are 05 nos. minor bridges and 83 nos. of slab/box culvert exist on the project road. 02 Nos. of PUPs have been proposed. There are 18 minor junctions exist on the project road. The intersections along the project road section are proposed to improve in accordance with IRC codes. The important intersections are proposed to be provided with islands and verges at centre for proper movement of diverging / merging traffic. No bypass and toll plaza is proposed on the project road. The average daily traffic on project road based on traffic count at two traffic count stations is 3717 PCU. 03 Nos. of bus bays have been proposed. The total civil cost of the project is Rs. 247 crores.

During the discussions, the Committee finalized the following TOR for further study:

- (i) The alignment is passing through Todagarh Wild Life Sanctuary between km 148.00 near Baghana and km 162.000 near Bassi village in Rajsamand district hence, clearance shall be obtained from the National Board for wildlife*
- (ii) The proposal indicates the acquisition of 19 ha of protected forest land and 52 ha sanctuary / reserve forest land. Necessary stage -I forestry clearance shall be obtained as per OM dated 31.03.2011 and submitted along with final EIA report.*
- (iii) The project indicates cutting of 2506 Trees for the widening of the road. Necessary prior permission shall be obtained for cutting of trees from the competent authority. Compensatory afforestation shall be carried out as per stipulated conditions of MoEF and State Forest Division.*
- (iv) The additional ToR and General Guidelines as per the annexure-I and Annexure-II respectively to this Minutes shall also be considered for preparation of EIA/EMP.*
- (v) Submit the details of the road safety audit and plans for meeting the IRC safety requirements.*

Any further clarification on carrying out the above studies including anticipated impacts due to the project and mitigative measure, project proponent can refer to the model ToR available on Ministry website “<http://moef.nic.in/Manual/Highways>”.

Public hearing to be conducted for the project as per provisions of Environmental Impact Assessment Notification, 2006 and the issues raised by the public should be addressed in the Environmental Management Plan.

A detailed draft EIA/EMP report should be prepared as per the above additional TOR and should be submitted to the Ministry as per the Notification.

4.31 Finalization of ToR for 4-laning of Beawar - Baghana section from km. 58.245 to Km 147.000 on NH-8 in the State of Rajasthan by DCM, Ajmer Road, Jaipur, Rajasthan. (F.No.10-42/2012-IA-III).

As presented by the project proponent, the proposal involves 4-laning of Beawar - Baghana section from km. 58.245 to Km 147.000 on NH-8 in the State of Rajasthan by DCM, Ajmer Road, Jaipur, Rajasthan. The proposed section starts from km 58.245 near Beawar and ends at Km 147.000 near Baghana covering length of about 88.755 kilometers. The project road falls in Ajmer and Rajsamand districts of Rajasthan. Land use pattern of the project area is mainly agriculture and protected forest. The existing carriageway is 2-lane flexible pavement of 7m width 1.5 m paved shoulder and 1.0 m earthen shoulder at both sides and proposed is 4-lane divided with 7.25 m carriageway with 0.6 m median and 1.0 m line drain. Existing ROW Varies from 23m to 60m. The proposed RoW is 60 m. Total land requirement for the project will be 330 ha. 62 ha of protected forest land need to be diverted, as the existing alignment passes through road side plantation declared as protected forest. The project road does not pass through any eco-sensitive areas. There is no wild life sanctuary or National Park on the project highway. Approximately 10494 trees proposed to be felled for the 4-laning of the project road. There are 35 nos. minor bridges and 248 nos. of slab/box culvert exist on the project road. 1 No. of minor bridge 4 No. of slab culverts, 01 No. of RoB, 04 Nos. of flyover, 02 Nos. of PUP and 01 No. of VUP is proposed for construction. There are 06 major and 61 minor junctions exist on the project road. 03 major and 61 minor (Out of remaining 3 major junctions, 2 provided with Flyover & 1 with VUP) junctions are proposed. The intersections along the project road section are proposed to improve in accordance with IRC codes. The important intersections are proposed to be provided with islands and verges at centre for proper movement of diverging / merging traffic. One bypass at Taragarh from Chg 85.700 to Chg 86.700 exists on the project road. There is one proposed bypass at Jawaja, which deviates from NH-8 to the west at Ch. 74.800 and merges back to Ch. 77.500 of NH-8. The length of bypass is 3.0 km. Bus bays & shelters have been proposed at seven locations (both side). One truck lay-

bye (Km 144, both sides) exist on the project road. 02 Nos. of truck lay-by (Km 143 and Km 62, both sides) have been proposed. The average daily traffic on project road based on traffic count at two traffic count stations is 3561 PCU. The total civil cost of the project is Rs. 700 crores.

During the discussions, the Committee finalized the following TOR for further study:

- (i) The proposal indicates the acquisition of 62 ha Protected Forest land. Necessary stage –I forestry clearance shall be obtained as per OM dated 31.03.2011 and submitted along with final EIA report.*
- (ii) The project indicates approximately 10494 Trees falls in RoW. however, bare minimum trees shall be cut, the information should be provided about their species and whether it also involved any protected or endangered species. Necessary prior permission shall be obtained for cutting of trees from the competent authority. Compensatory afforestation shall be carried out as per stipulated conditions of MoEF and State Forest Division.*
- (iii) The additional ToR and General Guidelines as per the annexure-I and Annexure-II respectively to this Minutes shall also be considered for preparation of EIA/EMP.*
- (iv) Submit the details of the road safety audit and plans for meeting the IRC safety requirements.*

Any further clarification on carrying out the above studies including anticipated impacts due to the project and mitigative measure, project proponent can refer to the model ToR available on Ministry website “<http://moef.nic.in/Manual/Highways>”.

Public hearing to be conducted for the project as per provisions of Environmental Impact Assessment Notification, 2006 and the issues raised by the public should be addressed in the Environmental Management Plan.

A detailed draft EIA/EMP report should be prepared as per the above additional TOR and should be submitted to the Ministry as per the Notification.

4.32 Finalization of ToR for rehabilitation & upgradation of existing 4-lane of Indapur - Kashedi section of NH-17 (km. 84.00 to Km 161.00) in the State of Maharashtra by M/s Chief Engineer, National Highway (PW) Navi Mumbai. (F.No.10-36/2012-IA-III).

As presented by the project proponent, the proposal involves rehabilitation & upgradation of existing 4-lane of Indapur - Kashedi section of NH-17 (km. 84.00 to Km 161.00) in the State of Maharashtra. The NH-17

start from Panvel (near Mumbai) and transverse on the coast side of the Sahyadri Hill range (Western Ghat) through the States of Maharashtra, Goa, Karnataka and Kerala. The project road starts at km 84.00 ater God River crossing and passess through urbanized villages of Indapur, Mangaon, Mahad, Poladpur and Kashedi and ends at Km 161/00 in Khshedi Ghat. Total length of the project road is 74.68 Km This includes tunnel length of 1.72 Km, Indapur bypass of length 3.1 Km and Mangaon bypass of 7.5 km. Project road sretch is a single carriageway comprising base two lanes with width ranging from 7 m to 10 m and soft shoulders on either side with width ranging from 0.5 m to 2.5m. The project corridor mostly passes through plain terrain except few stretches which fall under rolling terrain. It also passess therough mountains terrain in Keshedi Ghat of length 18.5 Km.

During the discussions, the Committee finalized the following TOR for further study:

- (i) The proposed route is passing through hilly area, examine and submit the stability of slopes, control of soil erosion from embankment, details of drainage management measures.*
- (ii) The proposed route involves tunnelling, the details of the tunnel and locations of tunnelling with geological structural fraction should be provided. There shall be no blasting for tunnelling.*
- (iii) The additional ToR and General Guidelines as per the annexure-I and Annexure-II respectively to this Minutes shall also be considered for preparation of EIA/EMP.*
- (iv) Submit the details of the road safety audit and plans for meeting the IRC safety requirements.*

Any further clarification on carrying out the above studies including anticipated impacts due to the project and mitigative measure, project proponent can refer to the model ToR available on Ministry website “<http://moef.nic.in/Manual/Highways>”.

Public hearing to be conducted for the project as per provisions of Environmental Impact Assessment Notification, 2006 and the issues raised by the public should be addressed in the Environmental Management Plan.

A detailed draft EIA/EMP report should be prepared as per the above additional TOR and should be submitted to the Ministry as per the Notification.

Recommended projects

5.1 CRZ clearance for construction of sea water intake and outfall pipelines for discharge of treated effluent into estuary of river Narmada at Dahej, Talukka, Vagra, dist. Bharuch by M/s ADANI, Gujarat(F. No. 11-35/2012-IA.III)

As presented by the project proponent the proposal is for construction of sea water intake and outfall pipelines for discharge of treated effluent into estuary of river Narmada at Dahej, Talukka, Vagra, dist. Bharuch. M/s Adani Power Dahej Ltd (APDL), a subsidiary of Adani Power Ltd, has proposed to set up a 4 x 660 MW Thermal Power Project on Super Critical Parameters in Dahej Industrial Area of GIDC, near Suva Village in Bharuch District of Gujarat. The project site is outside CRZ area over 337 ha of land allotted by GIDC, at the lower estuary of Narmada at distance of about 500 m. There are no mangroves in the vicinity of the site. The nearest mangroves are in Aliabet at a distance of more than 5.5 km. It is proposed to use Narmada Estuary makeup water for condenser cooling. Consumptive water requirements will be met by appropriately treating the Narmada Estuary water. Cooling tower blow down will be returned to Narmada Estuary. Makeup water would be transported to plant through intake water structure and open channel from Narmada Estuary and outfall will be through a buried pipeline.

Total makeup water requirement is estimated at 23,375 cu.m/hr. Closed cycle cooling system is proposed with Induced Draft Cooling Towers. The outfall is estimated at 16,650 cu.m/hr. National Institute of Oceanography (NIO) has carried out the Marine EIA study and CRZ area demarcation for the project. Gujarat Maritime Board has issued NOC for drawl of water from Narmada Estuary and for intake and outfall facilities, as recommended by NIO. Environment Clearance is granted by the Ministry of Environment of Forest for the Thermal Power Project on 25.10.2011. The Gujarat Coastal Zone Management Authority has recommended the proposal on 27.03.2012.

The proposal for CRZ Clearance is for Seawater Intake facility for 25,000 m³/hr & Outfall facility for 16,650 m³/hr. The Intake is proposed through Open Channel, which will be dredged to a depth of 3 m below Chart Datum with bottom width of 20 m. The total length of channel will be 979 m, out of which 886.3 m will be in CRZ area. The location of intake will be at 21°40'39.5" N, 72°39'26.0" E. For Outfall, one pipe of 1400 mm diameter will be laid 1.5 m below the bed. The total length of pipeline up to HTL will be 1257.6 m. The discharge point location will be 21°40'18.0" N, 72°38'33.0" E. A 240 m long diffuser with 24 ports will be provided to achieve a minimum dilution of 46.2 times. The discharge will be at 2 m below Chart Datum.

A capital dredging of 0.8 Mm³ for constructing the channel will be done and the dredged spoil will be used for land filling within plant

area and away from the marine environment. The study has predicted insignificant changes in the flow regime of the Narmada Estuary. However, the channel will be silted to the tune of 11,200 m³/year, which will require maintenance dredging once in three years.

The expected values for the parameters in the outfall considered are: Temperature- 5°C above maximum ambient water temperature of 30°C of the receiving water body and Salinity- 13 ppt above worst case salinity of 30 ppt of receiving water body. The impacts on marine environment have been predicted to be insignificant. Environment Management Plan has been prepared including development of mangroves over 200 ha.

It is noted that M/s Adani Power Dahej Ltd (APDL) proposes a 4 x 660 MW Thermal Power Project on Super Critical Parameters in Dahej Industrial Area of GIDC, near Suva Village in Bharuch District of Gujarat. The project site is to the north of lower estuary of Narmada and outside CRZ area. Water requirement of 23,375 m³/hr would be drawn from Narmada Estuary through open channel intake and outfall of 16,650 m³/hr will be through a buried pipeline.

As per the proponent, the first option of intake from Open Sea at a distance of 16 km was technically not found feasible due to instability of intake well, as this area is very dynamic. Also the intake corridor would pass through populated Dahej Town and the Industrial Areas of Dahej & Dahej SEZ. The second option of Intake Pipeline from an Intake Well at suitable location in Narmada Estuary was also ruled out as Gujarat Maritime Board (GMB) has proposed Navigation Channel in the Narmada Estuary for the Shipbuilding facilities along the coast and the Intake Well and the Pipeline would be an obstruction for navigation. Moreover high rate of scouring near the intake well will cause frequent silting of intake well requiring frequent desilting resulting in disturbance to marine ecosystem.

The only option left is Open Channel from a suitable depth contour has been found technically feasible as it would not pose any hindrance to navigation. The maintenance dredging will be required once in three years as the sedimentation rate estimated is 11,200 m³/year. This was also accepted by GMB. The proposed Open Channel will be dredged to a depth of 3 m below Chart Datum with bottom width of 20 m. The total length of channel will be 979 m, out of which 886.3 m will be in CRZ area.

The Gujarat Maritime Board had considered the above and has issued their NOC. The Gujarat Coastal Zone Management Authority had also considered the different options and recommended the intake through Open Channel

The proposal was examined by the EAC in its meeting held on 16th - 17th April, 2012 and sought additional information. The following details submitted were examined by the Committee.

1. NOC from SPCB as required under CRZ Notification, 2011.
2. CRZ map on 1:4000 scale with the open channel arrangement superimposed on it.

The Committee recommends the proposal for Clearance with the above condition in the Clearance letter for strict compliance by the project proponent.

5.2 CRZ clearance for proposed project for construction of outfitting jetty at Magdalla Shipyard at Magdalia, Surat, Dist. Surat by M/s ABG Shipyard Limited [F.No.11-53/2011-IA.III]

The proposed outfitting jetty as add on Facility with shipyard unit – II of M/s ABG Shipyard LTD. admeasuring 200 m in water front length of Tapi estuary is located along the coast of Tapi estuary in Gavier Village of Surat district, approximately 20 km from Surat city. It will provide berthing facility to do the final alignment and other jobs on the newly built ships. The outfitting jetty will facilitate to berth the ships at a place with sufficient water depth where outfitting activities can be continued without tidal constraints.

The project site is located along the Southern bank of Tapi Estuary. The presence of marshy Intertidal zones and mud banks are dominant features of the Intertidal region of the study area. The villages in the close vicinity of the project site are Magdhalla and Gavier. The proposed location of the outfitting Jetty is in between the existing Jetties of M/s Ambuja cement and Magdhalla Port of M/s Gujarat Maritime Board (GMB). Premises of M/s ONGC is located just opposite of the existing shipyard on the opposite bank of Tapi estuary.

The jetty is planned to be transparent jetty on R.C.C. piles in the same line of existing jetties of M/s Ambuja cement and Magdhalla Port of M/s Gujarat Maritime Board. The proposed jetty will be located around 100m from M/s GMB jetty and 53.5 meter from the M/s Ambuja cement jetty. The proposed outfit jetty will be consisting of two portions, one on either side of a berthing facility for barges in between. The berthing facility for the barges will be 22 meter wide. Left side portion of the outfitting jetty will be of dimension of 88.8 meter in length and 9.0 meter in width. The right side berthing facility will be of dimension of 65.4 meter length and 9.0 meter width.

The proposal was recommended by the EAC subject to submission of 'layout superimposed on the HTL/LTL map demarcated by an authorized agency on 1:4000 scale'. Accordingly, the PP has submitted the map.

The Committee recommends the proposal for CRZ Clearance .

5.3 Environmental Clearance for an integrated Municipal Solid Waste Facility at Survey nos. 198, 202, 203, 204, 205, 206, 208, 209, 210 and 214 Anupinakatte villlage, Shimoga, Village Anupinakatte by M/s. Ramky Enviro Engineers Ltd. [F.No.10-54/2009-IA-III]

The project was considered by the EAC in its meeting held on 27th - 28th August, 2009 and finalized additional ToR including conduct of Public Hearing. Public hearing was conducted on 04.06.2011 at Project site. While finalizing ToR, the EAC suggested to enhance the capacity from 15 TPD to 100 TPD. The proponent, has replied that the plant is meant to handle 50 TPD of MSW as per the Concession agreement with Shimoga Municipal Council, it is designed to accommodate 70-75 TPD waste. Accordingly, the Committee has recommended for EC however, the following to be added in the minutes.

'The design capacity of the facility is 75 TPD'.

5.4 CRZ clearance for reconstruction of existing School building on C.S.No. 14/593 & 15/593 at Darabsha Lane, Off. Nepean Sea Road, Malabar & Combala Hill, Mumbai by M/s. Pagnis & Pagnis [F. No. 11-118/2008-IA-III].

The proposal involves the reconstruction of existing school building on a plot area of 2125 sqm and the area under reconstruction is 11180 sqm. It is proposed to reconstruct 2-tire basement + 18 floors building after demolishing the existing school building on the said land. The water requirement will be 149 KLD (2920 Nos). The wastewater generation will be about 132 KLD. Packaged STP of 135 KLD capacity is proposed. 95 KLD of treated wastewater will be reused. Total solid waste generation will be 1460 Kg/day and it will be handled as per rules. The total cost of the project is 118.13 crores.

As per the sanctioned Development Plan of D ward, the land falls in residential zone and partly reserved for School Building and is within 100 meters from the Heritage structure. The Mumbai Heritage Conservation Committee has issued a NOC for the proposed School Building.

As per the report submitted by Urban Development Department and the Coastal Zone Management Plan of Mumbai approved by MoEF, the land under reference is in CRZ-II and towards the land ward side of the existing authorized structure. Hence development on the said land is permissible as per the D C Rules existed on 19.2.1991. As per Amendment dated 22.4.2003 -CRZ Notification- demolition/ Reconstruction of building under public use (worship, education, medical etc.) needs clearance from MoEF.

The proposal was discussed in the 47th meeting of Maharashtra Coastal Zone Management Authority held on 26.9.2008 and recommended the project.

The proposal was earlier discussed in the 74th meeting of EAC held on 12th - 14th March 2009 and 81st meeting held on 29th - 30th October, 2009 and in view of the proposal of high rise school building, the Committee decided to visit the site.

The sub-group of the Expert Appraisal Committee visited the site on 22nd December, 2009. The report of the sub-group was put up before the Expert Appraisal Committee in the 84th EAC meeting held in 27th - 29th January 2010 and again on 28th - 29th June, 2010 and recommended the project for issue of clearance. While processing, additional queries raised. Viz. NOC from Heritage Point of view and 1: 4000 scale map. The proponent has submitted the same.

The Committee recommends the proposal for Clearance with the above condition in the Clearance letter for strict compliance by the project proponent.

5.5 EC and CRZ clearance for proposed Multi- Product SEZ at Mundra by M/s Mundra Port and SEZ Ltd. (F.No. 10-138/2008-IA.III)

The project involves development of multi product SEZ on a plot area of 18,000 ha. of which 5,920.7762 ha. is presently notified under Special Economic Zone (SEZ). The multi-product SEZ will provide plots to various industries and also develop dwelling units, hotels, shopping malls and other related amenities and utilities. The total water requirement is 11 MLD (source -River Narmada). It is also proposed to have a desalination plant of 150 MLD capacity and 2 Central Effluent Treatment Plants (CETPs) of 50 MLD and 17 MLD each capacity. It is also proposed to have a STP of 62 MLD capacity.

The project was appraised by the EAC in its meeting held on 30th and 31st January 2009 and finalized the TOR including conduct of Public Hearing. Public Hearing was conducted on 05.10.2010.

It is informed by the proponent that the ongoing court cases do not have any stay in the present project. Only laying of pipeline are proposed within CRZ areas. The SCZMA has recommended the project vide letter dated 27.03.2012.

The proposal was examined by the EAC in its meeting held on 16th -17th April, 2012 and Committee sought additional information. The response submitted by the proponent were examined by the Committee.

During the discussion, the following points emerged:

- (i) *There shall be no allotment of plot in CRZ area to industries except the port and harbor & the activities require foreshore facilities. Proponent shall submit undertaking.*

- (ii) *Monitoring on marine disposal shall be carried out and the quality of marine parameters at the outfall shall be monitored and report submitted to RO, MoEF along with half yearly compliance report.*
- (iii) *There shall be no development activities in CRZ area other than those permissible under the Coastal Regulation Zone Notification, 2011,*
- (iv) *Proponent shall identify 200 ha of land for mangrove plantation as per the condition laid by SEAC.*
- (v) *50 meter buffer from the existing mangrove area should be provided for any developmental activity,*
- (vi) *Proponent shall develop the green belt of 3 layers of canopy all along the periphery , except water front,*
- (vii) *All the recommendation of the EMP shall be complied with letter and spirit. All the mitigation measures submitted in the EIA report shall be prepared in a matrix format and the compliance for each mitigation plan shall be submitted to MoEF along with half yearly compliance report to MoEF-RO.*
- (viii) *The outfall structure is very close to the turning circle at very shallow depth. This may be extended to water depth of about 6 – 8 m near the shipping channel.*
- (ix) *Under water pipelines (intake and outfall) shall be laid underground at least 2.0 m below its crown from the sea bed.*

The Committee recommends the proposal for Environmental and CRZ Clearance with the above conditions in the Clearance letter for strict compliance by the project proponent.

5.6 Environmental Clearance for construction of married accommodation (phase - II) at Pithoragarh by M/s MES Pithoragarh (F. No. 21-23/2012-IA-III)

The project involves construction of married accommodation at Pithoragarh. The total plot area is 140400 sq. m and plinth area is 42214 sq.m. the total built up area is 84428 sq. m. parking area is 11195 sq. m. fresh water requirement is approximately 2 lac gallon per day. Total estimated sewage generation is approximately 720 KLD. The source of power supply is Uttarakhand Power Corporation Limited. The cost of the project is 203.39 crore.

The proposal was considered by the EAC in its meeting held on 10th -11th May, 2012 and sought additional information. The information related to (i) Vermin

composting and alternate option and (ii) case studies on the existing successful MSW treatment plants in surrounding areas as submitted by PP was examined by the Committee. The EAC recommends the proposal for Environmental Clearance with a condition that the solid waste shall be managed as per the provision of Municipal Solid Waste (Management & Handling) Rules, 2000.

5.7 EC for for 4-Lane with Paved shoulder of the section of the section Km 299/10 to Km 140/6 of NH-7 (Rewa to MP/UP Border) in the State of Madhya Pradesh by M/s Madhya Pradesh Road Development Corporation Limited. [F.No. 10-48/2011-IA-III]

The project involves 4-laning with Paved shoulder of the section of the section Km 299/10 to Km 140/6 of NH-7 (Rewa to MP/UP Border) in the State of Madhya Pradesh. The road starts at km. 229/10, outside Rewa City on NH-7 and ends at Km. 140/6 near MP-UP border. The total length of the road is 89.40 Km and designed length is 89.30 Kms. The proposed carriageway width is 7.0 mts. It passes through mainly plain terrain except some stretch from Km. 142/6 to 141/6 with the total length of 1.0 km in rolling terrain. Land use pattern along with the road are agricultural and built up in 43 villages/ towns. Existing ROW is 18.0 m to 35.0m. Service road will be provided for a length of 15.70 km. Bypasses with length of 27.9 km proposed at 6 locations. 20 numbers of vehicular under-pass and 26 no of bus laybye, 4 nos. of trucks lay-bye are proposed. There are 20 minor bridges and 90 culverts. Out of which, 8 nos of minor bridges will be abandoned, 5 will be reconstructed, 7 widened and 8 nos. will be newly constructed. Total area to be acquired is 324.32 ha. About 3528 trees are proposed to be cut for the project. There are no forests land, eco- sensitive areas along the project road. Total cost of the project is 8.25 crores.

The proposal was considered by the EAC in its meeting held on 10th - 11th May, 2012 and sought additional information. The information submitted were examined by the Committee.

The Committee recommends the proposal for Environmental Clearance .

Annexure-I

- (i) Any litigation(s) pending against the proposed project and/or any directions or orders passed by any court of law/any statutory authority against the project is to be detailed out.

- (ii) Submit detailed alignment plan, with details such as nature of terrain (plain, rolling, hilly), land use pattern, habitation, cropping pattern, forest area, environmentally sensitive places, mangroves, notified industrial areas, sand dunes, sea, river, lake, details of villages, teshils, districts and states, latitude and longitude for important locations falling on the alignment by employing remote sensing techniques followed by ground truthing and also through secondary data sources.
- (iii) Describe various alternatives considered, procedures and criteria adopted for selection of the final alternative with reasons.
- (iv) Submit Land use map of the study area to a scale of 1: 25,000 based on recent satellite imagery delineating the crop lands (both single and double crop), agricultural plantations, fallow lands, waste lands, water bodies, built-up areas, forest area and other surface features such as railway tracks, ports, airports, roads, and major industries etc. and submit a detailed ground surveyed map on 1:2000 scale showing the existing features falling within the right of way namely trees, structures including archeological & religious, monuments etc. if any.
- (v) If the proposed route is passing through any hilly area, examine and submit the stability of slopes, if the proposed road is to pass through cutting or embankment / control of soil erosion from embankment.
- (vi) If the proposed route involves tunneling, the details of the tunnel and locations of tunneling with geological structural fraction should be provided. In case the road passes through a flood plain of the river, the details of micro drainage, flood passages and information on flood periodicity at least of last 50 years in the area should be examined.
- (vii) The projects is located within 10km. of the sanctuary a map duly authenticated by Chief Wildlife Warden showing these features vis-à-vis the project location and the recommendations or comments of the Chief Wildlife Warden thereon should be furnished at the stage of EC.
- (viii) Study regarding the Animal bypasses / underpasses etc. across the habitation areas shall be carried out. Adequate cattle passes for the movement of agriculture material shall be provided at the stretches passing through habitation areas.
- (ix) If the proposed route is passing through a city or town, with houses and human habitation on the either side of the road, the necessity for provision of bypasses/diversions/under passes shall

be examined and submitted. The proposal should also indicate the location of wayside amenities, which should include petrol station/service centre, rest areas including public conveyance, etc.

- (x) Submit details about measures taken for the pedestrian safety and construction of underpasses and foot-over bridges along with flyovers and interchanges.
- (xi) Assess whether there is a possibility that the proposed project will adversely affect road traffic in the surrounding areas (e.g. by causing increases in traffic congestion and traffic accidents).
- (xii) Examine and submit the details of use of fly ash in the road construction, if the project road is located within the 100 km from the Thermal Power Plant.
- (xiii) Examine and submit the details of sand quarry, borrow area and rehabilitation.
- (xiv) Climate and meteorology (max and min temperature, relative humidity, rainfall, frequency of tropical cyclone and snow fall); the nearest IMD meteorological station from which climatological data have been obtained to be indicated.
- (xv) The air quality monitoring should be carried out as per the new notification issued on 16th November, 2009.
- (xvi) Identify project activities during construction and operation phases, which will affect the noise levels and the potential for increased noise resulting from this project. Discuss the effect of noise levels on near by habitation during the construction and operational phases of the proposed highway. Identify noise reduction measures and traffic management strategies to be deployed for reducing the negative impact if any. Prediction of noise levels should be done by using mathematical modeling at different representative locations.
- (xvii) Examine the impact during construction activities due to generation of fugitive dust from crusher units, air emissions from hot mix plants and vehicles used for transportation of materials and prediction of impact on ambient air quality using appropriate mathematical model, description of model, input requirement and reference of derivation, distribution of major pollutants and presentation in tabular form for easy interpretation shall be carried out.
- (xviii) Also examine and submit the details about the protection to existing habitations from dust, noise, odour etc. during construction stage.

- (xix) If the proposed route involves cutting of earth, the details of area to be cut, depth of cut, locations, soil type, volume and quantity of earth and other materials to be removed with location of disposal/dump site along with necessary permission.
- (xx) If the proposed route is passing through low lying areas, details of fill materials and initial and final levels after filling above MSL, should be examined and submit.
- (xxi) Examine and submit the water bodies including the seasonal ones within the corridor of impacts along with their status, volumetric capacity, quality likely impacts on them due to the project.
- (xxii) Examine and submit details of water quantity required and source of water including water requirement during the construction stage with supporting data and also classification of ground water based on the CGWA classification.
- (xxiii) Examine and submit the details of measures taken during constructions of bridges across river/canal/major or minor drains keeping in view the flooding of the rivers and the life span of the existing bridges. Provision of speed breakers, safety signals, service lanes and foot paths should be examined at appropriate locations through out the proposed road to avoid the accidents.
- (xxiv) If there will be any change in the drainage pattern after the proposed activity, details of changes shall be examined and submitted.
- (xxv) Rain water harvesting pit should be at least 3 - 5 m. above the highest ground water table. Provision shall be made for oil and grease removal from surface runoff.
- (xxvi) If there is a possibility that the construction/widening of road will cause impact such as destruction of forest, poaching, reductions in wetland areas, if so, examine the impact and submit details.
- (xxvii) Submit the details of road safety, signage, service roads, vehicular under passes, accident prone zone and the mitigation measures.
- (xxviii) IRC guidelines shall be followed for widening & upgradation of road.
- (xxix) Submit details of social impact assessment due to the proposed construction of road.
- (xxx) Examine road design standards, safety equipment specifications and Management System training to ensure that design details

take account of safety concerns and submit the traffic management plan.

- (xxxix) Accident data and geographic distribution should be reviewed and analyzed to predict and identify trends – in case of expansion of the existing highway and provide Post accident emergency assistance and medical care to accident victims.
- (xxxvii) If the proposed project involves any land reclamation, details to be provided for which activity land to reclaim and the area of land to be reclaimed.
- (xxxviii) Details of the properties, houses, businesses etc. activities likely to be effected by land acquisition and their financial losses annually.
- (xxxix) Detailed R&R plan with data on the existing socio-economic status of the population in the study area and broad plan for resettlement of the displaced population, site for the resettlement colony, alternative livelihood concerns/employment and rehabilitation of the displaced people, civil and housing amenities being offered, etc and the schedule of the implementation of the project specific
- (xxxv) Submit details of Corporate Social Responsibility. Necessary provisions should be made in the budget.
- (xxxvi) Estimated cost of the project including environmental monitoring cost and funding agencies, whether governmental or on the basis of BOT etc and provide details of budget provisions (capital & recurring) for the project specific R&R Plan.
- (xxxvii) Submit environmental management and monitoring plan for all phases of the project viz. construction and operation.

Annexure-II

General Guidelines

- (i) The EIA document shall be printed on both sides, as far as possible.
- (ii) The status of accreditation of the EIA consultant with NABET/QCI shall be specifically mentioned. The consultant shall certify that his accreditation is for the sector for which this EIA is prepared.
- (iii) On the front page of EIA/EMP reports, the name of the consultant/consultancy firm along with their complete details

including their accreditation, if any shall be indicated. The consultant while submitting the EIA/EMP report shall give an undertaking to the effect that the prescribed TORs (TOR proposed by the project proponent and additional TOR given by the MoEF) have been complied with and the data submitted is factually correct (Refer MoEF office memorandum dated 4th August, 2009).

- (iv) While submitting the EIA/EMP reports, the name of the experts associated with/involved in the preparation of these reports and the laboratories through which the samples have been got analysed should be stated in the report. It shall clearly be indicated whether these laboratories are approved under the Environment (Protection) Act, 1986 and the rules made there under (Please refer MoEF office memorandum dated 4th August, 2009). The project leader of the EIA study shall also be mentioned.
- (v) All the TOR points as presented before the Expert Appraisal Committee (EAC) shall be covered.

113th Meeting of the Expert Appraisal Committee for Infrastructure Development, Coastal Regulation Zone and Miscellaneous projects held on 4th – 5th June, 2012 at Scope Complex. Lodhi Road, New Delhi.

List of Participants

Expert Committee

1. Shri Naresh Dayal	Chairman
2. Dr. M.L. Sharma	Vice Chairman
3. Dr. Apurba Gupta	Member
4. Dr. S.P. Bansal	Member
5. Dr. H.S. Ramesh	Member
6. Dr. Y. Basavaraju	Member
7. Dr. Niraj Sharma (Rep. of CRRI)	Member
8. Shri Bala Subramaniam	Member
9. Shri Lalit Kapur	Member Secretary

MoEF officials

10. Shri E. Thirunavukkarasu	Scientist 'C', MoEF
11. Shri Amardeep Raju	Scientist 'C', MoEF

Project Authorities:

Representatives from

M/s Chettinad Power Corporation Pvt Ltd
M/s Indian Oil Petronas Pvt. Ltd.
M/s Chandrakala Resort Hotels Ltd
M/s Posco India Pvt. Ltd.
M/s Mararari Beach Resorts (p) ltd.
M/s Jay Pee Gujarat Cement Plant
M/s Nagapattinam Energy Pvt Ltd
M/s Baddi Infrastructure
M/s Adani Hazira Port Pvt. Ltd
M/s Adityapur Auto Cluster
M/s Bharuch Enviro Infrastructure Ltd.
M/s Taneja Aerospace and Aviation Ltd.
M/s APR Projects Pvt Ltd
M/s Hazira infrastructure Private Limited
M/s Murti Housing & Finance Private Ltd.
M/s D.N. Homes Pvt. Ltd.
M/s Vivimed Labs Limited
M/s Ramky Multiproduct Industrial Park Ltd.
M/s Krishnapatnam International Leather Complex Private Limited
M/s HSIIDC
M/s. K.S. Realty Constructions Pvt. Ltd.
M/s NHAI

M/s Chief Engineer, National Highway (PW) Navi Mumbai

Next meeting: 9th -10th July, 2012