

Minutes

The Minutes of the 126th Meeting of the Expert Appraisal Committee for Projects related to Infrastructure Development, Coastal Regulation Zone, Building/Construction and Miscellaneous projects held from 19th – 21st September, 2013 in the Conference Hall, IOC, Scope Complex, Lodhi Road, New Delhi.

1. Opening Remarks of the Chairman.

The Chairman welcomed the members to the 126th meeting of the Expert Appraisal Committee and the first meeting of the reconstituted Committee. Chairman suggested that sufficient time should be provided to the members to go through the project documents and reports. He also pointed out that many clearances recommended by the Committee have been challenged in NGT and there are various observations/ orders of NGT. It would be appropriate that the agenda is not overloaded so that the Committee has sufficient time to appraise the projects in detail.

2. Confirmation of the Minutes of the 125th Meeting of the EAC held on 10th – 12th June, 2013 at New Delhi.

Member Secretary informed that no comments have been received from the members of the earlier Committee after the posting of minutes on the website. The Committee noted the information provided by the Member Secretary and the minutes of the 125th Meeting were confirmed.

3. Consideration of old Proposals

3.1	<p>Extension of Environmental Clearance for Container Terminal Project at Ennore Port Limited. M/s Ennore Port Limited [F.No.10-28/2005-IA.III(P)]</p> <p>The project proponent informed that MoEF accorded environmental clearance vide Letter No. 10-28/2005-IA-III dated 10.9.2007 for the development of Container Terminal for a quay length of 1000 mtrs. along with associated Capital Dredging to provide an alongside depth of (-) 16 mtrs CD, with a capacity to handle 18 MTPA (1.5 million TEUs). As the five year period is over, the port has requested for renewal of the environmental clearance for a further period of three years in view of the fact that the earlier Concessionaire for development of Container Terminal failed to start the work and subsequently the concession agreement was cancelled. EPL has again taken up development of container Terminal in phases keeping in view the latest developments and market demand. At present 11 bids for qualification have been received for development of container terminal of 730 mtrs quay length with a capacity of 16.8 MTPA (1.4 million TUEs). This project is planned to be awarded by December 2013.</p> <p>PP further informed that there is no change in the project scope.</p> <p><i>Committee noted that in terms of para 9 of the EIA, Notification, 2006, the extension of EC can be considered provided the request / application is made within the validity period. As the Proponent made the request within the validity period, the Committee has therefore recommended to extend the validity of clearance by another three years.</i></p>
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3.2	<p>Finalization of ToR for development of Shipyard cum Captive jetties including an LNG Terminal at Nana Layja, Kutch district, Gujarat by M.s GIMCPL. [F.No. 11-87/2011-IA-III].</p> <p>The Committee noted that the part of the proposed site allotted for the activity appeared to be in the middle of the river mouth. The proponent clarified that the land already exists there at about 3-5 m above the MSL.</p> <p><i>However, the Committee recommended to defer the project and suggested the proponent to submit the details of the particular land along with the documentary proof or revise the layout leaving the river mouth.</i></p>
3.3	<p>Environmental and CRZ Clearance for the expansion of Dhamra Port at Dhamra, Bhadrak Dist. of Orissa by M/s. Dhamra Port Company Ltd. [F.No.11-104/2009-IA.III]</p> <p>The EAC considered the project in its meeting held in November, 2009 and finalized ToR including the conduct of Public Hearing, which was conducted on 13.07. 2012. The State Coastal Zone Management Authority has recommended the project vide letter dated 20.12.2012.</p> <p>The EAC considered the project in December, 2012 and sought additional information viz. compliance of the EC conditions, revised map showing lat/long coordinates along the boundary of the project site. GPS coordinates for the mangrove area, specific details regarding ballast disposal as proposed for the project vis-à-vis existing guidelines, Commitment for all the recommendations provided by OCZMA and NIO for protection of Kanika island and earmark specific amount for the conservation plan, analysis regarding 'dredge material disposal. The proponent submitted and presented the information.</p> <p>The EAC had again, in June, 2013, sought additional information relating to compliance of the EC conditions, revised map showing lat/long coordinates along the boundary of the project site, GPS coordinates for the mangrove area, details regarding ballast disposal vis-à-vis existing guidelines, commitment for all the recommendations provided by OCZMA and NIO for protection of Kanika island and its conservation plan, analysis and mitigation plan for dredge material disposal, construction of berths on open piled structure, issues raised during the public hearing along with the response/action plan. The details submitted and presented by the proponent were discussed by the EAC in its meeting held on 12th June 2013. It recommended to defer the proposal seeking additional information, viz, details on complaint of sewage disposal in to agriculture land, acquisition of grazing / grave land for the project, mangrove conservation plan, NBWL clearance etc. The proponent submitted the details and informed that he has submitted application for NBWL clearance in August, 2012. The proposal for NBWL clearance is being considered by the State Board for Wildlife which has been constituted recently.</p> <p>Regarding the representation of Sh. Bibhuti Bhusan Misra, Advocate, on Environmental Clearance matters pertaining to Dhamra Port it has been clarified by the proponent that the main allegation in the representation is regarding construction of 62 km railway line from Bhadrak to Dhamra and a Transmission line from Bhadrak to</p>

	<p>Dhamra, water pipeline and Water Treatment Plant for which no EC was obtained. It has been mentioned by the proponent that the above activities are outside the port limits and these activities does not require Environmental Clearance as per the EIA Notification, 2006. Regarding the</p> <p style="text-align: center;"><i>During discussion the following points emerged:</i></p> <ul style="list-style-type: none"> <i>i. The proponent shall submit undertaking that there shall be no acquisition of grazing / grave land for the project.</i> <i>ii. The regional office of MoEF may conduct a site visit every year to verify compliance.</i> <i>iii. The natural creek and drainage pattern of the area should not be disturbed and the cross drainage passing through cargo stack yards shall be released into settling ponds as committed.</i> <i>iv. No housing component is permitted in CRZ area i.e. within 500 m from HTL.</i> <i>v. As discussed during the meeting the dumping area should be at the latitude 20⁰ 55. 1' and longitude 87⁰ 10.5' in the off shore region.</i> <i>vi. All the commitments made during the Public Hearing shall be complied with.</i> <i>vii. Regular air quality monitoring should be conducted at the site and all the parameters should be within limits.</i> <p style="text-align: center;"><i>The Committee recommended the proposal for Environmental and CRZ Clearance with the above conditions in the Clearance letter for strict compliance by the project proponent</i></p>
3.4	<p>Extension of validity of ToRs for the five projects of DMICDC by M/s DMICDC [F. No. 21-19/2011-IA.III]</p> <p>ToRs were approved for the five similar projects of Delhi Mumbai Industrial Corridor Development Corporation (DMICDC) in the 99th EAC meeting held on 5th & 6th April 2011 and communicated vide letter dated 4th May 2011. Thereafter, site Specific TORs were also approved in the 100th EAC Meeting held on 11th- 12th May, 2011 and communicated vide letter No. 21-20/2011-IA.III dated 27th May 2011. Validity of the TORs was for two years upto 27th May 2013. PP informed that EIA studies have been completed and submitted to SPCB for conduct of Public Hearing which is yet to be conducted. Therefore, proponent requested for extension of validity of terms of reference by another year.</p> <p style="text-align: center;"><i>The Committee recommended to extend the validity of ToRs by one year.</i></p>
3.5	<p>Environmental and CRZ Clearance for development of sea port Simar at Chhara village, Junagarh District, Gujarat by M/s. Simar Port Ltd. [F.No.11-73/2009-IA.III]</p> <p>As presented by the project proponent, GMB issued Letter of Intent (LOI) to SPPL (then SPCL-Afcons-Forbes Consortium) in April 2008 for development of all-</p>

weather, direct-berthing port and create necessary infrastructure at Simar. ToR was granted for the Simar site. Subsequent investigations at the Simar Port site (Khada village) revealed adverse off-shore geo-technical data which led to the conclusion that port cannot be developed at Khada. SPPL then identified another site, 45 km on the west of the Simar site near Chhara village (in the Junagadh district). ToR was granted for the Chhara site in January, 2010. Chhara site has a shoal bank at 2.5 km distance from shore. GMB accepted SPPL's proposal to develop the port at the Chhara site. The proposed port site at Chhara is located on the South coast of Gujarat State, west of Diu Island.

The site identified for the proposed port at Chhara falls approximately between Latitude - 20° 43' 19.56" N and Longitude- 70° 44' 28.73" E. Kodinar is the nearest town with connection to the railway network and is located 7 km from the project site. Nearest National Highway is NH 8E and is approx 6.5 km on the North of the proposed site. Development of the port is proposed in two phases. In Phase – 1 it is proposed to develop facilities to handle imported coal of 8 MMTPA. Maximum vessel size expected to enter the port will be 180,000 DWT size in loaded condition. The berthing area has water depth of 20 m below CD and can accommodate even a fully laden larger size coal vessel.

Proposed project involves construction of Breakwater (Length: 1700 m, Width : 75 m at bottom, Height: 10 m above CD level), Berth (One No., Length: 350 m, Width: 25 m), Approach Trestle(Length: 2265 m, Width: 12 m); Capital Dredging 1.5 Million Cum, Maintenance Dredging 150,000 Cum per annum; development of Coal Stackyard (32 Ha), and allied infrastructure facilities.

GCZMA has recommended the project vide letter No. ENV-10-2011-1164 dated 26.04.2013. There is no eco- sensitive area in the site and within 10 km radius.

Public Hearing was conducted on 19.11.2010 at Shri Shah MM High School, Sarkhadi-Chhara Circle, Kodinar, Junagadh District. The major points raised are employment, impact on water bodies, conservation of Shark Whales and sea turtles. The details submitted and presented by the proponent were examined.

Committee noted that there was an appeal before Hon'ble NGT against the project and it was disposed vide order dated 22nd April, 2012. In the Order dated 20.4.2012, it is noted that the issues are the site is in Eco-sensitive area, power plant site is very fertile whereas the EIA report does not mention so. EIA is not based on 3 seasons date, Public Hearing was not conducted as per law, project will affect Bandara, affect the migratory birds which visit the wet land in winter, Port site is abode to sea turtle.

The Proponent clarified that the site is not an eco-sensitive area, the nearest wet land is about 3 m away, EAC (Thermal) sub-committee visited the site and observed that the site is in a largely single crop agriculture land, there would not be any runoff to bandara since slope is towards sea and not towards bandara, details of agriculture land provided at EIA page 124 table 3.20.2 and 125, EIA is based on 3 seasons data.

EAC in May, 2013 sought the additional information on justification for acquiring pockets of land of irregular shape, Coal handling along with dust control measures, water requirement and treatment wash water / wastewater for belt washing, Approach Trestle, response on the issues raised in the appeal made before Hon'ble NGT etc. It also suggested to shift stack yard at least 300-500 m away from its boundary.

The Committee noted that NGT passed order in the appeal on 20th April, 2013. In view of the order of NGT, it was decided in June, 2013, that in addition to the copy of order, the proponent may also circulate the copy of petition to the members. EAC noted that Petitioner has not approached the Ministry as per NGT order. Nearest ESZ GIR forests is 22 km away. Issues raised during PH and raised before NGT and responses were presented by the proponent were examined by the EAC.

During discussion, the following points emerged and were recommended to the Project proponent for compliance:-

- i. PP shall provide lining for collection of run off from coal stock yard and the leachate shall be treated before disposal.*
- ii. Re-design of RWH system with respect to maximum rainfall.*
- iii. There shall be no washing of conveyor belt as committed.*
- iv. Shall provide wind screen of minimum 15 m height made of fabric/HDPE all along the periphery of coal stockyard area. The height shall be designed taking into account the wind velocity and model studies. Use of creepers to adsorb dust shall also be explored in consultation with forest department.*
- v. Coal shall be kept under moist conditions using water sprinklers. Transportation shall be in closed conveyors with water spray*
- vi. Shall provide animal underpasses 2 nos as per IRC*
- vii. Drainage system of the canal joining the two water bodies shall not be disturbed*
- viii. Submit the CSR Action plan with budget*
- ix. No wet land and radial canal falls in port land*
- x. All the conditions stipulated by PCCF vide letter dt 21.09.2012 shall be complied with*
- xi. All the conditions stipulated by GCZMA shall be complied with.*

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

3.6	<p>Review of Environmental and CRZ clearance for proposed expansion and moderation of Pipavav Port, Taluka Rajula, district- Amreli by M/s Gujarat Pipavav Port Ltd. [F. No. 11-91/2009-IA-III]</p> <p>The proposal for expansion and modernization plan of Pipavav Port, was examined by the EAC in its meeting held on 23rd- 24th November, 2009 which finalized the ToRs including conduct of Public Hearing. The Public hearing was conducted on 12.05.2011 within the Port. Gujarat Coastal Zone Management Authority has recommended the project vide letter No. ENV-10-2011-997-E dated 18.01.2012. EAC examined the proposal in its meeting held in March, 2012 and recommended for grant of clearance. Accordingly, the EC was granted on 05.06.2012.</p> <p>The EC was challenged before the NGT stating that proposed expansion will adversely affect mangrove forests, migrating birds etc. NGT allowed the appeal and ordered to keep the clearance in abeyance for six months and the matter was remitted to the EAC for the purpose of reconsideration of appraisal.</p> <p>The project proponent presented the response to the issues raised before the NGT. The EAC examined the responses especially with respect to coal dust and its control, amenities for Shiyalbet, road access etc. After examining the details submitted and presented by the proponent, EAC decided to call for the following information from PP and further presentation in the subsequent meeting.</p> <ol style="list-style-type: none"> i. <i>Submit the issues raised, NGT observations, empirical evidence for or against the issue.</i> ii. <i>Details of the problem of inhabitants of shiyalbet and relief measures proposed</i> iii. <i>Report from Regional Office on the compliance of earlier conditions</i> iv. <i>Report of the PCB on the compliance of consent orders.</i> v. <i>Details of satellite imagery to prove mangroves have not been destroyed.</i>
3.7	<p>CRZ clearance for proposed CNG filling station at plot No. 153-A, BBR Scheme Block III, Fort Division on Free Press Journal Road Mumbai by M/s Mahanagar Gas Ltd. [F. No. 19-104/2012-IA.III]</p> <p><i>The Committee decided to defer the project, since the project proponent did not circulate the documents in time.</i></p>
3.8	<p>CRZ Clearance for Development of 4.0 Ha of Forest land in Visakhapatnam Division for “Karthikavanam” in S.No.106 of Yendada Village, Greater Visakhapatnam Municipal Corporation by M/s MAG Leisures [F.No.11-12/2013-IA.III]</p> <p>As presented by the project proponent the proposal involves development of</p>

ecotourism activity including construction of 84 cottages, Sampradaya Vedika- to showcase Art and Culture of the region (open air auditorium), traditional Indian house, Youth Activity Centre, Restaurant and ethnic food court. The total plot area is 4 ha. and the plinth area is 10.963.58 sqm. The water requirement will be 70 KLD and will be met from Public Supply. The waste water generation of about 56 KLD will be treated in a modular STP of 60 KLD capacity. The treated wastewater will be used for greenbelt/ flushing. Forest clearance has been obtained vide letter dated 30.09.2010 from Regional Office, MoEF. Parking facility is proposed in 5191.33 sqm. Green belt of 19,627 sqm is proposed. D.G set of 250 KVA has been proposed with acoustic enclosure.

EAC in its meeting held in April, 2013 sought the details of landscape plan, drainage plan, parking and circulation, trees along with types, girth size etc.

Proponent informed that out of 280 trees, 50 trees will be relocated including 29 big trees, 21 medium and 3 small trees.

The EAC examined the details submitted and presented by the proponent. After deliberation, the EAC decided to recommend the project for grant of CRZ clearance subject to the following conditions:

- (i) *“Consent to Establish” shall be obtained from the State Pollution Control Board under Air and Water Act and a copy shall be submitted to the Ministry’s Regional Office before start of any construction work at the site.*
- (ii) *Approval of the State Tourism Department shall be obtained.*
- (iii) *The project proponent shall not undertake any construction within 200 metres on the landward side of High Tide Line and within the area between Low Tide Line and High Tide Line;*
- (iv) *There shall be no ground water drawal in no development zone of CRZ area. Between 200-500m from HTL, the water can be tapped with the approval of the State Ground Water Authority.*
- (v) *Necessary arrangements for the treatment of the effluents and solid wastes must be made and it must be ensured that the untreated /treated effluents and solid wastes are not discharged into the water or on to the beach;*
- (vi) *The quality of treated effluents, solid wastes, emissions and noise levels and the like, from the project area must conform to the standards laid down by the competent authorities including the Central or State Pollution Control Board and under the Environment (Protection) Act, 1986.*
- (vii) *The total covered area on all floors shall not exceed 33 percent of the plot size i.e., the Floor Space Index shall not exceed 0.33 and the open area shall be suitably landscaped with appropriate vegetal cover;*
- (viii) *The overall height of construction upto the highest ridge of the roof, shall not exceed 9 metres and the construction shall not be more than two floors*

	<p><i>(ground floor plus one upper floor);</i></p> <p><i>(ix) Live fencing and barbed wire fencing with vegetative cover may be provided around private properties subject to the condition that such fencing shall in no way hamper public access to the beach; to allow public access to the beach, at least a gap of 20metres width shall be provided if the width of the plot is more than 500 metres.</i></p> <p><i>(x) There shall be no extraction of sand, levelling or digging of sandy stretches except for structural foundation of building, swimming pool; no flattening of sand dunes shall be carried out.</i></p> <p><i>(xi) The construction shall be consistent with the surrounding landscape and local architectural style;</i></p>
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4. Consideration of New Proposals:

4.1	<p>CRZ Clearance for proposed construction of erosion/coastal protection work in Valsad, Pardi and Umargam Taluka, Dist Valsad by M/s Narmada, Water Resources, Water Supply & Kalpasar Department [F.No. 11-36/2013-IA.III] & [F.No.11-40/2013-IA-III]</p> <p>GCZMA has recommended the project vide F.No.ENV-10-2012-98-E dated 14.05.2013 and F.No.ENV-10-2012-99-E dated 24.05.2013.</p> <p>The EAC examined the details submitted and presented by the proponent. After deliberation it decided to recommend the project for grant of CRZ clearance subject to the following condition:</p> <p><i>Also explore the use of tetra pods since in long run, the efficiency of the proposed facility may reduce due to sand accumulation.</i></p>
4.2	<p>CRZ Clearance for construction Groynes for protection of 36 pipeline across river Minodla at village Danti, Dist Navsar M/s ONGC [F.No.11-37/ 2013-IA.III]</p> <p><i>The Committee decided to defer the project, since the project proponent did not attend the meeting.</i></p>
4.3	<p>CRZ Clearance for onshore gas terminal at Mallavaram setting up of process cum living quarter platform at offshore in KG-OSN-2001/03, Andhra Pradesh and laying of 20” underground Gas Pipeline along with OFC and 10” effluent disposal pipeline passing through CRZ area of Yanam-Puducherry by M/s Gujarat State Petroleum Corporation Ltd. [F.No. 11-21/2013 -IA.III]</p> <p>As presented by M/s Gujarat State Petroleum Corporation Ltd (GSPC), Gandhinagar (A Govt. Of Gujarat Undertaking) has signed a production sharing contract with Govt. Of India on 2nd February 2003 for carrying out exploration and production activities in the Offshore Block (KG-OSN-2001/3) KG Basin, East Coast of India. After discovery of Gas in well KG #8, GSPC has decided to develop the field as “Deendayal</p>

Development Field”.

Environmental Clearance from Ministry of Environment and Forest (MoEF) was obtained for above field development which consists of following:-

1. Setting up of Well Head Platform (WHP) at Offshore (KG#8 location)
2. Drilling of 15 development wells from Well Head Platform
3. Laying of Multiphase produced fluid pipeline from Offshore (WHP) to Land Fall Point (LFP) and from LFP to Onshore Gas Terminal (OGT) at P. Mallavaram.
4. Laying of pipeline for disposal of treated effluent from OGT at identified marine outfall location.
5. Processing Facilities for 240 MMSCFD (Million Standard Cubic Feet per Day) Gas and associated condensate at Onshore Gas Terminal at P. Mallavaram Andhra Pradesh

Subsequently with receipt of CFE from the State pollution Control Board, physical construction work for the above field development has already commenced. In the mean time, with availability of additional well test data, capacities of some of the already envisaged facilities were required to be enhanced and also some new facilities were required to be added in the Development Scheme so that it continues to remain effective and optimum. As per the directives of MoEF, GSPC has submitted application for obtaining CRZ clearance for below mentioned facilities:-

1. Process cum Living Quarter Platform connected to Well Head Platform (With gas dehydration, Produced water treatment, Living Quarter facility) located at Offshore
2. Enhancement of processing capacity of Onshore Gas Terminal (Natural Gas – 240 MMSCFD to 300 MMSCFD and condensate to 1344 MTPD)
3. Enhancement of capacity of Captive Power plant (CPP) (4 to 24 MW)
4. Evacuation of process sale gas from OGT through (~500 m long) sale gas pipeline to east West pipeline (EWPL) of M/s RGIL
5. Raw water pipeline (~74 Km) to draw raw water from upstream of Dowlaiswaram barrage.

The expected cost of the project is Rs 203000 Lakhs.

The proposal was earlier considered in the EAC meeting held in June 2013. The Puducherry Coastal Zone Management Authority has recommended the project for the portion within Yanam (Puducherry region). The Committee noted that the EAC (Ind) has not cleared the project and the APCZMA has not recommended the project. Hence, the Committee recommended to defer the project.

This proposal was considered by AP State Coastal Zone Management Authority (APCZMA) on 7th November 2012 and it recommended the project to MoEF. The final recommendation letter/NOC from APCZMA was submitted to MoEF on 14th June, 2013. The Proponent desired that this EAC should give clearance before the matter is taken up by EAC (ind).

During the discussion the following points emerged:

	<p>i. <i>The mitigation measures proposed in the Environment Management Plan / Disaster Management Plan for the leak detection, DG set emission, off-shore safety etc should be strictly adhered to.</i></p> <p>ii. <i>The smooth and safe operation of the system shall be ensured by incorporating a computerized SCADA (Supervisory Control And Data Automation) system. Any leakage in the pipeline shall be immediately detected by the Computer system and product pumping shall be immediately cut off</i></p> <p>iii. <i>Prior clearance from NBWL shall be obtained in view of Coringa Wildlife Sanctuary located at a distance of 2.5 km.</i></p> <p>iv. <i>Horizontal Directional Drilling (HDD) for length of 280 m to cross Neelapalli Channel shall be carried out as committed during the meeting.</i></p> <p>v. <i>Oil spill contingency management plan should be followed.</i></p> <p>vi. <i>EAC (Ind) shall take care of other environmental parameters associated with the proposal including the pollution control, when the proposal is submitted for the appraisal.</i></p> <p><i>The Committee recommended the proposal for CRZ Clearance with the above conditions in the Clearance letter for strict compliance by the project proponent.</i></p>
4.4	<p>CRZ Clearance for expansion of M/s Calangute Hotel Goa [F.No. 16-9/2007-IA.III]</p> <p><i>The Committee decided to defer the project, since the project proponent did not attend the meeting.</i></p>
4.5	<p>CRZ Clearance for up-gradation of existing Dock for Ship building and repairing facilities at existing Bedi Port, Jamnagar by M/s Parekh Marine Agencies Ltd. [F.No.11-38/2011-IA.III]</p> <p>The proposal for up-gradation of existing Dock for ship building/ repairing at existing Bedi Port was examined by the EAC in its meeting held in March, 2012 and noted that the proposed facilities are within the port and includes port components viz dry dock, slipways, dredging etc., therefore EAC in March, 2012 finalised ToR.</p> <p>Proponent clarified that there is no new construction except repairing the existing facility and no capital dredging is involved and only maintenance dredging will be carried. Since maintenance dredging with the port limit is exempted from EIA, 2006, requested to consider CRZ clearance. GMB vide email dated 14.02.2013 clarified that no capital dredging is involved.</p> <p>The EAC examined the details submitted and presented by the proponent. After deliberation it decided to consider the project for CRZ clearance alone and suggested the proponent to come with Rapid EIA, EMP and recommendation of the SCZMA.</p>
4.6	<p>Environmental and CRZ Clearance for setting up 10 MMTPA LNG Import, Storage and Regasification facilities at Gangavaram Port Limited, Visakhapatnam by M/s Petronet LNG Ltd [F.No. 11-12/2012-IA.III]</p>

	<i>The Committee recommended to defer since the APCZMA recommendation was not received.</i>
4.7	<p>Environmental and CRZ Clearance for modernisation of Berth No. 7 for coal handling at Mormugao Port, Goa on DBFOT basis [F. No. 10-39/2009-IA.III (P)].</p> <p>The project proponent informed that the cargo volume at MPT has dropped from 50 million tonnes in 2010-11 to 17.69 million tonnes in 2012-13. This is on account of stoppage of iron ore mining in Goa. Even with the resumption of iron ore mining at Goa, the maximum cargo that can be expected to be handled at MPT will be around 25 million tonnes. Hence even with the modernization of Berth No.7, the capacity of the port will be substantially lower compared to permitted capacity. Berth No.7 will be for coal handling, which is existing cargo. There will be a mechanized facility with dry fog and sprinkling systems for effective dust suppression. Hence, dust pollution will be reduced to greater extent.</p> <p>The Committee noted that the earlier EAC in its meeting held in March, 2008 has not suggested Public Hearing and in July, 2009 has sought only the Recommendation of Goa Coastal Zone Management Authority. Accordingly, Proponent submitted the recommendation of Goa CZMA (Letter No. GCZMA/S/13-14/09/360 dated 07.06.2013). The Committee further noted that the proposal is for modernization / mechanization of existing berth which will be used to handle coal a permitted cargo. The Committee also noted that the Proponent's statement the overall cargo handling capacity has come down over the years and the present proposal of cargo handling is well within the ports permitted capacity. Therefore, the Committee decided that MoEF may take a view whether Public Hearing is required in the given circumstances and recommended that the proposal for grant of EC/CRZ clearance could be with the following conditions, subject to the decision of MoEF on Public Hearing.</p> <ol style="list-style-type: none"> <i>i. Shall provide lining for collection of run off from coal stock yard and the leachate shall be treated before disposal.</i> <i>ii. Shall provide dry fog and sprinkling systems for effective dust suppression</i> <i>iii. Entire transportation of coal shall be in closed conveyor.</i> <i>iv. There shall be no washing of conveyor belt..</i> <i>v. Shall provide wind screen of minimum 15 m height fabric HDPE all along the periphery. The height shall be designed taking into account the wind velocity modelling etc. Also explore creepers in consultation with forest department,</i> <i>vi. Coal shall be kept under moist conditions using water sprinklers. Transportation shall be in closed conveyors with water spray.</i> <i>vii. All the conditions stipulated by GCZMA shall be complied with.</i>
4.8	CRZ clearance for shore line protection measures at Southern Foreshore of Chennai Port by M/s Chennai Port Trust. F.No.10-104/2007-IA.III

	<p>As presented by the proponent, the proposal is to construct 6 Nos. Shore connected Rubble Mound Groynes of different lengths and spacing between the existing sand screen area and the river Cooum mouth. The main objective is to protect the shore from erosion and other natural calamities. IIT Madras has made numerical model studies for the project.</p> <p>The project proposal was examined by the EAC in its meeting held on 29th September 2007 and on 14th February 2011. EAC sought recommendations of the Tamil Nadu State Coastal Zone Management Authority to consider the above proposal.</p> <p>The TCZMA recommended the proposal subject to certain conditions. Committee noted that the groynes proposed are inside the main shore line and the studies presented by the proponent did not show any effect on the shoreline on other side of the groynes.</p> <p>The EAC examined the details submitted and presented by the proponent. After deliberation it decided to recommend the project for grant of CRZ clearance subject to the following conditions:</p> <p><i>Stones for the construction of groynes shall be obtained only from approved quarries.</i></p>
4.9	<p>Finalization of ToR for Development of Kishangarh Airport by M/s Airport Authority of India[F.No.10- 45/2013-IA-III]</p> <p>As presented by the project proponent in recent years, Kishangarh has come to be known as the marble city of India and is famous for trade of granite and marble. It is purported to be the only place in the world with a temple of nine planets. Kishangarh was the capital of a princely state during the British Raj, which was located in the Rajputana Agency. The project will cater the tourism demand of Ajmer and surrounding regions. Airports Authority of India proposes to develop a domestic airport in Villages: Madanganj, Rathora ki Dhani, Jatli & Sarana near Kishangarh, District-Ajmer, and State-Rajasthan. An MoU (Memorandum of Understanding) was signed between State Government and Airports Authority of India for the development of Kishangarh Airport. The project will be developed in an area of 700 acres (283 ha) by dismantling the existing airstrip covering an area of 11 acres which is non-functional since last few years. The land for the project has been provided by State Govt. free of cost and without encumbrances after removing obstructions.</p> <p>The latitude of the project site varies from 26^o34'20.5"N to 26^o36'5.5"N and longitude varies from 74^o47'20.0" E to 74^o49'39.6" E.</p> <p>In Phase-I, the airport will be developed to cater for operation of Dash 8 Q-400 type of aircraft in all weather conditions and will involve the following activities. All the facilities for safe operation of the aircraft like construction of new runway, low cost terminal building to cater 150 passengers at a time, apron, air traffic controller, runway end safety area (RESA), apron, link taxi track shoulders, isolation bay shoulders, fully equipped fire fighting equipments, storm water drains and perimeter wall shall form the part of project. Other miscellaneous facilities will include DVOR building, CCR room,</p>

Security watch tower new substation, AC plant room, provision of hooter system at access points and provision of explosive detection system. Subsequently, in Phase-II the airport will be developed for operation of A-321 type of aircraft, subject to viability and traffic demand. The estimated cost of the project is Rs 181 Crore.

The project will utilize the ground water and water supply from Kishangarh Municipality. The daily consumption of water during operation phase will be about 143 KLD of which 102 KLD will be fresh water and 41 KLD will be recycled water. Suitable provisions have been kept for storage and distribution system of water for different purposes. The power requirement for the proposed project is about 1MW. The power requirement for the project will be sourced from 440KV sub-station of Ajmer Vidyut Vitran Nigam Limited to step down sub-station within the premises of the proposed project.

During the discussions, the Committee finalized the following additional ToRs for carrying out EIA studies:

- (i) *Submit the details of the heritage structures within 10 km of the project site and likely impacts along with mitigation measures.*
- (ii) *Submit the details of the shifting of embankment of the canal and details of the permission of the competent authority.*
- (iii) *Examine and submit details of levels, quantity required for filling, source of filling material and transportation details etc. Submit details of a comprehensive Risk Assessment and Disaster Management Plan including emergency evacuation during natural and man-made disaster integrating with existing airport*
- (iv) *Examine road/rail connectivity to the project site and impact on the existing traffic network due to the proposed project/activities. A detailed traffic and transportation study should be made for existing and projected passenger and cargo traffic.*
- (v) *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.*
- (vi) *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.*
- (vii) *Rain water harvesting proposals should be made with due safeguards for ground water quality. Maximize recycling of water and utilization of rain water.*
- (viii) *Examine details of Solid waste generation treatment and its disposal.*

	<p>(ix) <i>Examine and submit the details of Noise modeling studies and mitigative measures.</i></p> <p>(x) <i>Identify, predict and assess the environmental and sociological impacts on account of the project/activities.</i></p> <p>(xi) <i>Examine baseline environmental quality along with projected incremental load due to the proposed project/activities.</i></p> <p>(xii) <i>The air quality monitoring should be carried out as per the notification issued on 16th November, 2009.</i></p> <p>(xiii) <i>Examine separately the details for construction and operation phases both for Environmental Management Plan and Environmental Monitoring Plan with cost and parameters.</i></p> <p>(xiv) <i>Submit details of corporate social responsibilities (CSR).</i></p> <p>(xv) <i>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/Airport”.</i></p> <p><i>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</i></p> <p><i>A detailed draft EIA/EMP report should be prepared as per the above additional TOR and the Manual should be submitted to the Ministry as per the Notification.</i></p>
4.10	<p>Environmental Clearance for Development of Airport at Bellora, Amaravati, Maharashtra by M/s Maharashtra Airport Development Co. Ltd. [F.No. 10-74/2010-IA.III]</p> <p>Committee noted that the No. of trees required to be cut for the project was only 2500 nos while finalizing ToRs, however, trees required to be cut now are 15110.</p> <p>The Committee deferred the project and sought details of the trees along with justification for increase in the number of trees to be cut. PP was advised to make a detailed presentation on the project proposal including the above issue in the subsequent meeting.</p>
4.11	<p>CRZ Clearance for development of an offshore LNG Floating storage and re-gasification unit at Kakinada Deep Water Port in Andhra Pradesh. M/s Krishna Godavari LNG Terminal Pvt. Ltd. [F.No.11-42/2013-IA.III]</p> <p>Krishna Godavari LNG Terminal Private Limited (KGLTPL) is a special purpose vehicle (SPV), of VGS Group Inc, USA proposes to develop an Offshore LNG</p>

Floating Storage and Re-gasification Unit (FSRU) in Kakinada Deep Water Port in Andhra Pradesh on a Build-Own-Operate (BOO) basis. FSRU is combination of Floating Regasification Unit (FRU) and Floating Storage Unit (FSU). FSU will receive LNG from LNG Carriers (LNGC) and provide LNG storage for the terminal and send LNG and boil of gas (BOG) to the FRU. The FRU will have LNG pumping and vaporization capabilities as well as metering facilities and will transmit natural gas to a subsea pipeline.

The project will be developed in two (2) phases with a handling capacity of 3.6 MTPA in Phase I and 7.2 MTPA in Phase II (cumulative) respectively. The FSRU will be located at latitude 17⁰04'30"N and longitude 82⁰26'30" E at (-) 20 m contour within Kakinada Port Limits. The FSRU will consist of unloading platform for LNGC, FSU and FRU Platform, service platform, mooring dolphins, breasting dolphins and catwalks etc at (-) 20 m contour. Because of the possible cyclone surge, combined with high tide plus storm waves, unloading platform is planned at elevation of (+) 15 m above the lowest water level.

A subsea pipeline of the size of 36" has been planned for transportation of regasified gas from FRU to landfall point and landfall point (LFP) of the pipeline is located at latitude 17⁰0'0"N and longitude 82⁰16'47" E, a metering station with administration buildings are planned in an area of 5 acres near Kakinada port. The Regasified gas pipeline will be laid in trench of 3 m x 3m connected to GAIL/Reliance National Grid from the landfall point.

Trenching will be carried out for laying of subsea pipe line from FSRU to LFP. Water requirement of 16000 m³/hr for regasification of LNG will be met from sea water. Approximately 5 KLD of fresh water is required for potable water and will be sourced from existing water supply of Kakinada port. The power requirement of 3 MW shall be met from Boil of Gas (BoG) generators installed at FSRU. The estimated cost for development of FSRU and supply pipe line approximately Rs. 8,700 Million.

During the discussions, the Committee finalized the following additional ToRs for carrying out EIA studies:

- i. Copy of Agreement between the KGLTPL and Kakinada Sea Port Ltd shall be submitted.*
- ii. Design details of the stationary platform along with operation details and limitations, if any,*
- iii. IMD data along with the data of NIOT should be considered for designing the terminal*
- iv. Impact on Marine life should be studied along with other studies for EIA report*
- v. Submit the details of the various applicable regulations including safety regulations along with the proposed compliances. Also details of safety aspects associated with handling of LNG vis a vis other cargo in other facilities within the port.*
- vi. Submit the details of the Hazop analysis*

<ul style="list-style-type: none"> vii. <i>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.</i> viii. <i>Submit a copy of layout superimposed on the HTL/LTL map demarcated by an authorized agency on 1:4000 scale along with the recommendation of the SCZMA.</i> ix. <i>Submit details of storage and regasification, distribution network etc and vulnerability of human habitation vis a vis LNG associated risks.</i> x. <i>Type of LNG carriers proposed taking into account the future growth in vessel sizes beyond the present day market trend and the handling aspects of such vessels from environmental considerations.</i> xi. <i>Submit the details of the reclamation along with the source of materials and its quantity & quality.</i> xii. <i>Submit the details of shore line changes along with the shore protection if nay required.</i> xiii. <i>Submit details of Environmental Management Plan and Environmental Monitoring Plan with parameters and costs.</i> xiv. <i>Submit the details of the fishing activity and likely impact due to the activity.</i> xv. <i>Details of land breakup along with land use plan and Details of green belt development.</i> xvi. <i>Explore possibilities of meeting domestic water from desalination instead transport from shore.</i> xvii. <i>Details of solid / liquid wastes generation and their management.</i> xviii. <i>Water requirement, source, impact on competitive users.</i> xix. <i>Submit the details of the eco-sensitive areas, if any</i> xx. <i>Submit the details of dredging sludge quantity quality in terms of its toxic metals (atleast Cr+6, Arsenic, Mercury, and lead) and its disposal with quantity (reclamation/ dredging disposal site) If disposal is in sea, location, the justification for selecting such location, the dispersal of dumping material, its effect on marine environment, effect on fishes.</i> xxi. <i>Submit the details of study on connectivity and its carrying capacity (both road and railway).</i> xxii. <i>The General guidelines for TORs as per the annexure-II to this Minutes shall also be considered for preparation of EIA/EMP.</i> <p style="text-align: center;"><i>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</i></p> <p style="text-align: center;"><i>A detailed draft EIA/EMP report should be prepared as per the above additional TOR and general TORs and should be submitted to the Ministry as per the Notification.</i></p>

4.12	<p>CRZ Clearance for construction of 5 star resort (Vivanta by Taj at Havelock) M/s Indian Hotel Company Limited. F.No. 11-43/ 2013 - IA.III</p> <p><i>The Committee decided to defer the project, since the project proponent did not circulate the documents in time.</i></p>
4.13	<p>CRZ Clearance for construction of a single standard villa at Havelock, Andaman by M/s Indian Hotel Company Ltd. F.No. 11-44/ 2013 - IA-III</p> <p><i>The Committee decided to defer the project, since the project proponent did not circulate the documents in time.</i></p>
4.14	<p>Environment Clearance for the establishment of Industrial Growth Centre at SIDCO Industrial Complex, Ghati Kathua, Jammu & Kashmir by M/s State Industrial Development Corporation Pvt. Ltd [F. No. 21-22/2010-IA.III]</p> <p>Jammu & Kashmir State Industrial Development Corporation (JK SIDCO), has proposed to set up Industrial area at village Ghati (Kathua district) about 3.5 km north of Jammu-Pathankot National Highway (NH 1A). The area lies between latitude 75°26'30" E to 75°25'50"E and longitude 32°27'30" N to 32°29'04"N and falling under toposheet no. 43 P/7 (Restricted). Type of land is unproductive (Banjar) land and a small chunk of rain-fed agriculture land. The nearest village is Ghatti at 1.0km in NE, nearest railway station is Budhi Rly Station 2.0km S, nearest highway is NH-1A at 3.3 km SW. Predominant wind direction is North-east. The total project area is 182.29Ha and cost of project is Rs.81.15 crores.</p> <p>Owing to proximity of eco-sensitive receptors - Jasrota Wildlife sanctuary (2km NW), and Ujh wetland (0.7km W and HFL 0.5km W) - the project is falling under category A. As suggested by State Board for Wildlife, only green and orange category industries are proposed, rezonation of the industrial area has been done and red category industries have been excluded from the proposal. The project is recommended by National Board for Wildlife. Public hearing for the project as held on 18-12-2010. A 15m wide belt all along the boundary has been earmarked for greenbelt development.</p> <p>Water requirement of the project is 1245 KLD out of which only 795 KLD freshwater would be pumped from 6 tube-wells and remaining 450 KLD would be treated water. Industries would be using water for manufacturing activities (process activities) and for operating utilities viz., DM plant, boilers etc.</p> <p>The domestic wastewater will be treated in sewage treatment plant (STP) of capacity 200KLD. The STP consists of pre treatment, secondary treatment (MBBR) and tertiary treatment of activated carbon/sand filter and disinfection. The treated water will be used for greenbelt.</p> <p>Proper Solid waste management plan has been developed and all management practices related to industrial waste, hazardous waste, domestic waste and bio-medical waste would be placed.</p>

In order to comply with the environmental protection measures, a budgetary provision of Rs. 17.63 crores with 10% recurring costs for Environmental Protection and Safety measures is made. Amount allocated for CSR activities is Rs. 4.02 crores.

The proposal was considered in the EAC meeting for award of ToRs, held on 29.06.2010 and the ToRs were awarded vide letter dated 06.08.2010. Public Hearing for the proposal was conducted on 18.12.2010. National Board for Wildlife recommended the proposal on 19.07.2012. The proposal was considered in the 117th EAC meeting held on 19.10.2012. The committee noted that the ToRs for the project were issued on 06/08/2010 and the validity of ToRs has expired. However, in view of the justification given by the project proponent during the meeting that since the Wildlife Board was not constituted and no recommendations were received from the Wildlife Board, the project could not apply for EC. Accordingly on the request of the proponent it has been decided by the Committee to extend the ToR for a period of 1 year as per OM dated March 22, 2012. The Committee decided to defer the proposal and requested proponent to present the case after incorporating additional ToR in the revised EIA report.

The matter was again considered in the 123rd meeting held on 16.04.2013 and the EAC sought additional information on Green belt, landscape plan, parking details etc. The proponent has submitted its response to the Ministry.

During discussion the following points were recommended for compliance:

- i. *Industry selection should be done carefully, as committed. Only green and orange category industries should be established in the industrial area.*
- ii. *Minimum Green belt of 15 meters in canopy formation with three rows should be provided all along the boundary of the site. The land (Green belt) should not be allotted for any unit holder and land will not be diverted to any other usage.*
- iii. *Copy of MOM and recommendations of NBWL should be submitted to the Ministry's Regional Office.*
- iv. *Existing major nalas/drains should not be diverted and green buffer of 5 meters should be provided on both the sides of the nalas/drains*
- v. *As committed during the public hearing, proponent should follow the zero discharge norms.*
- vi. *Guidelines of Central Groundwater Board shall be followed for withdrawal of groundwater*
- vii. *Rainwater harvesting should be adopted in the entire industrial area.*
- viii. *Boundary wall/ Fencing shall be provided all along the proposed Industrial Area to avoid trespassing and encroachment in the future.*
- ix. *IRC guidelines for landscaping, 2011 should be followed for plantation*
- x. *Housing facility along with sanitation facilities should be provided for the labourers during construction phase and also at the operation stage.*

	<p>xi. <i>Ground water samples should be collected to monitor that no effluent or trade chemicals are seeping into the ground water</i></p> <p>xii. <i>The regional office of MoEF shall inspect the site after commissioning.</i></p> <p>xiii. <i>No cement industry shall be established</i></p> <p>xiv. <i>No discharge shall be released into choes/nallah</i></p> <p>xv. <i>The connecting road to the industrial area should be designed for multi-axle vehicles</i></p> <p>xvi. <i>Entry to the National Highway should not be direct from the industrial area. Safe entry and exit should be designed.</i></p> <p>xvii. <i>No dying industries should be established.</i></p> <p><i>The Committee recommended the proposal for Environmental Clearance with the above condition in the Clearance letter for strict compliance by the project proponent.</i></p>
4.15	<p>Environmental Clearance for the revised proposal of Integrated Municipal Solid Waste Management project at Kinduwal Village, Solan District, Himachal Pradesh. M/s Addl. Chief Executive Officer, BBNDA, Baddi (HP) [F.No. 10–32/2012 – IA.III]</p> <p>As presented by the project proponent, the proposal is for development of integrated Municipal Solid Waste Management project at Kinduwal Village, Solan District, Baddi, Himachal Pradesh. The project is proposed for 2 major urban settlements, Baddi Municipal Council, Nalagarh Council and 41 Gram Panchayats. The Population as per 2001 census is Baddi -22601. Nalagarh-9443 and Gram Panchayat-1,12,520 the population growth is very high. The project is a category ‘B’ however, it is treated as category ‘A’ since it is located within 10 km from interstate boundary (Punjab and Haryana). The proposed capacity is 40 TPD. Total area of land is 2.42 ha at Kinduwal Village. Nearest water bodies are Sirsa River 0.10 km on western side and Balad Nadi -3km at SE. Nearest forest area is Kohaidun Reserve forest -5 km at Western side. Nearest airport is Chandigarh airport at 40 km. The proposed site has been earmarked for CETP/MSW. The proposed facilities involve segregation certification of MSW, composting and Sanitary landfill. Water requirement is estimated at 10 KLD and will be met from ground water. This wastewater expected would be 16.13 KLD including 0.8 from domestic, 15 from composting leachate and 0.5 from sanitary landfill leachate. The leachate generated is proposed to be reused for maintaining moisture and temperature in composting. The cost of the project is Rs. 970 lakhs.</p> <p>The EAC in its 112th meeting held on 10th – 11th May, 2012 finalized ToR including conduct of Public hearing. Public Hearing conducted on 13.08.2012 at the site</p> <p>The project was again considered by the EAC in its meeting held in December, 2012 and since the existing site is very much in proximity of the river, site was not suitable for setting up of MSW facility. EAC rejected the project and suggested to consider an alternate site and submit the site selection criteria for the new site.</p>

	<p>Proponent has submitted revised layout by shifting about 30 m further away from Sirsa river and boundary is 110 m from river. As a precaution against flooding, an embankment of 100 m long with 6m height along the river is proposed.</p> <p><i>The project was discussed again by the EAC in its meeting held in September, 2013 and decided to depute a Sub Committee to visit the site in view of the close proximity to Sirsa River. The Sub Committee may comprise of Shri M.L.Sharma, Shri Y.B.Kaushik and a representative of MoEF.</i></p>
4.16	<p>Finalization of ToRs for establishment of Greenfield Landfill in Vapi, GIDC, Distt. Valsad, Gujarat. M/s Vapi Waste and Effluent Management Co. Ltd. [F.No.10-16/2013-IA-III]</p> <p>As presented by the project proponent, the proposal is for establishment of landfill and incineration facility including co-generation of 14 ton/hr steam output, 2 MW power generation, multiple effects evaporated of 7500 L/hr for hazardous waste at plot No. 2519/p to 3432, GIDC, Vapi, Gujarat.</p> <p>The capacity of incinerator is 15,000 kg/hr and landfill will be 20,10,00 MT. Total plot area is 14.5 ha out of which 7.87 ha will be for landfill. Following activities are envisaged in the proposed landfill.</p> <ul style="list-style-type: none"> • Pre- treatment of the waste prior to disposal to degrade or to fix contaminants. • Encapsulation of a waste body by a suitable liner system consisting of bottom liner and cover liner. • Leachate collation & drainage system • Proper operation of the landfill and placement of waste • Suitable post closure measure to avoid long term contaminate release. <p>Incinerator:</p> <p>Combined incineration of hazardous waste is proposed in a patented Michalis moving bed incinerator consisting of a drying zone for moisture containing incinerable wastes, and incineration zone for the dried sludge and combustible materials. Combustion air will be blown in the waste by a nozzle system controlled by incineration parameters. Temperature in the combustion chamber will be maintained at approx. 850 °C. The temperature will be controlled by burner operation. Flue gases from the combustion chamber containing partially oxidized material will be conveyed to the post combustion chamber designed for a flue gas temperature of about 1100 °C and 2 second residence time. The combustion chamber will be lined entirely with high quality refractory material with high alumina oxide content for wear resistance.</p> <p>The incinerator will be designed for continuous operation of 24 hr/day, with automatic ash removal, automatic feeding of mixed hazardous waste and dry sorption system for flue gas cleaning</p> <p>Co-generation system:</p> <p>Cogeneration or Combined Heat and Power (CHP) is defined as the sequential</p>

generation of two different forms of useful energy from a single primary energy source, typically mechanical energy and thermal energy. Mechanical energy may be used to drive an alternator for Evaporator. The overall efficiency of energy use in cogeneration mode can be up to 85 per cent and above in some cases. The proposed Co-generation system comprises a waste heat recovery boiler proposed to be installed to extract sensible heat from the flue gases from the incineration system thus rendering the has quenching service to the incinerator. Steam from the boiler will be used to produce power in a TG system and will also be used as heat feed into the propose MEF.

Multiple Effect Evaporation:

MEF is a thermal treatment technology, wherein the boiling point difference of different dissolved solids, chemicals, organic, inorganic solvents are considered at different level of designing. The ingredients having boiling points less than water are thermally treated in a packed tower know as Stripper to its vapour form and recovered (High Volatile COD treatment). The balance liquid (or mother liquor) is sent for further treatment in MEF in which the water is treated in different calandria to vapour stage, by utilization minimum steam using vacuum. The evaporated water is recovered for reuse, while the concentrated slurry of left over concentrate is then sent to ATFD (Agitated Thin Film Dryer), where the remaining water in the slurry is evaporated to give out maximum amount of dry solid or salts.

During the discussions, the Committee finalized the following additional ToRs for carrying out EIA studies:

- 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 (if any), 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 Transboundary movement)) Rules, 2008 and Bio- Medical Waste (Management and Handling) rules, 2000 including collection and transportation (if applicable). design etc.*
- vi. *All the applicable rules shall be listed and mitigation plan to comply the applicable rules shall be submitted in detail.*
- vii. *Action plan and infrastructure required to comply the PROTOCOL as prepared by CPCB for performance evaluation and monitoring of TSDF.*
- viii. *Submit the details of the waste generated, present mode of disposal as per the State PCB authorization etc.*
- ix. *Submit the MoU made between member units along with responsibilities.*

	<p>x. <i>Examine the details of monitoring of Dioxin and Furan.</i></p> <p>xi. <i>Submit a copy of MoU for disposal of ash through the TSDF.</i></p> <p>xii. <i>Submit the details of Air Pollution Control Measures.</i></p> <p>xiii. <i>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.</i></p> <p>xiv. <i>Water quality around the landfill site shall be monitored regularly to examine the impact on the ground water.</i></p> <p>xv. <i>Applicable rules under E- Waste (Management & Handling) Rules, 2011 and action plan to comply the provisions.</i></p> <p>xvi. <i>Submit details of a comprehensive Disaster Management Plan including emergency evacuation during natural and man-made disaster</i></p> <p>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.</p> <p>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.</p>
4.17	<p>Finalization of ToRs for Hazardous Waste Incinerator & Common Effluent Treatment Plan by M/s Mysore Eco-Technologies (F. No. 10-22/2013-IA.III)</p> <p><i>The Committee recommended to defer the project since the details of the location submitted are not clear. The details of land use, distance of the water bodies, habitation etc are also not provided.</i></p>
4.18	<p>Finalization of ToRs for Integrated Textile Park at Nariganapuram, Amuthakondapalli & Mugalapalli villages, Hosur taluk, Krishnagiri District, Tamil Nadu. M/s SLS Textiles Park Pvt. Ltd. (F.No.21 -7/ 2013-IA-III)</p> <p><i>The Committee decided to defer the project, since the project proponent did not circulate the documents in time.</i></p>
4.19	<p>Finalization of ToR for Canara industrial area at IRA, Chelur, Balepuni and Kurnadu village, Bantwal taluk, Dakshina Kannada by M/s KIADB [F.No.21 -05/ 2013 - IA-III]</p> <p><i>The Committee decided to defer the project, since the project proponent did not circulate the documents.</i></p>
4.20	<p>Finalization of ToRs for Jodhpur-Pali-Marwar Industrial area development plan. M/s DMICDC [F.No.21-06/ 2013-IA-III]</p> <p>The Project involves development of Jodhpur Pali Marwar Industrial Area in a total area of about 155 sq.km. The proposed Urbanisable area is about 80 sq. km, while rest will be planned as Peripheral Control Belt with agriculture and controlled</p>

development. This is planned to be located at the Jodhpur- Pali District border and at about 40 Kms from Jodhpur and 25 km from Pali. Manufacturing Industries with a large base of SMSE's is identified as the major economic driver for the proposed development of the region. Total Water requirement for Potable purpose is about 60 MLD and water for industrial use is about 50 MLD. Source of fresh water identified is Indira Gandhi Nahar Pariyojna (IGNP) through Rajiv Gandhi Lift Canal (RGLC). Solid Waste generation will be about 82 MTD. Public transport will be developed at two levels, 1) Within JPM IA and 2) between JPM IA with neighboring Urban centers of Jodhpur and Pali. This will comprise of BRTS along with dedicated Cycle and pedestrian tracks within the JPM IA. For regional connectivity, BRTS through bus fleet augmentation and development of Pali- Sojat bypass (about 21 km length) has been planned.

There is a provision for the development of Integrated Multi Modal Logistics Hub with an area of about 2 sq.km within the JPM IA. The components of MMLH are 1) Transportation facility and rail sidings, 2) Warehousing Facilities, 3) Supporting utilities and infrastructure and 4) Value added services such as Packaging, etc. This MMLH is expected to handle a Cargo of about 25 MT per annum in 2042.

There is no Reserved or Protected forest in the identified JPM IA. There is no existence of any Wildlife Park/ Bird Sanctuary/ Notified Ecosensitive Zone within a distance of 10 km from the periphery of JPM IA.

During the discussion, the Committee finalized the following additional ToRs to conduct EIA studies:-

- i. *Layout may be superimposed on the Google map and should be submitted.*
- ii. *Water allocation policy for Jodhpur-Manawar-Pali should be submitted, Quantity of water and the recycling quantity should be specified*
- iii. *Water conservation measures shall be brought out clearly and given high priority.*
- iv. *Reasons for selecting the site with details of alternate sites examined/rejected/selected on merits with comparative statement and reason/basis for selection. The examination should justify site suitability in terms of environmental damage, resources sustainability associated with selected site as compared to rejected sites. The analysis should include parameters considered along with weightage criteria for short-listing selected site.*
- v. *Developer should also include copy of policy level appraisal including environmental and resources sustainability considerations (if any) done for Delhi Mumbai Investment Region by Ministry of Commerce to arrive at the suitability and selection of the corridor as the best strategic decision.*
- vi. *The project boundary area and study area for which the base line data is generated – submit through a suitable map. Justification of the parameters, frequency and locations shall be discussed in the EIA.*

	<p>vii. <i>Submit Legal frame work for the implementation of Environmental Clearance conditions - to be clearly spelt out in the EIA report.</i></p> <p>viii. <i>Submit Roles and responsibility of the DMIC/developer etc for compliance of environmental regulations under the provisions of EP Act.</i></p> <p>ix. <i>Site justification of the identified industry sectors from environmental angel and the details of the studies conducted if any.</i></p> <p>x. <i>Ground water classification as done by the Central Ground Water Authority.</i></p> <p>xi. <i>In view of present uncertainties regarding farmers land acquisition, what will be the procedure for the acquisition of land for investment regions.</i></p> <p>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.</p> <p>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.</p>
4.21	<p>Environmental Clearance for Halol –Savli Special Investment Region (SIR) at Halol & Halol Taluka in Panchayat District & Sallvi Taluka in Vadodara Distt. Gujarat. M/s Gujarat Industrial Development Corporation. [F.No.21-9/2012-IA.III]</p> <p>As presented by the project proponent, the proposal is for development of Halol –Savli Special Investment Region (SIR) at Halol & Halol Taluka in Panchayat District & Sallvi Taluka in Vadodara Distt. Gujarat. Halol and Savli are notified industrial area and the proposed SIR is about 35 km from Halol and 8 km from Savli. SH-158, SH-150 and SH -87 are three major linkages to the SIR. There is no eco- sensitive area within 10 km from the site.</p> <p>SIR notified by the government of Gujarat on 26.03.2010 under Gujarat Special Investment Region Act, 2009. Road, drainage network, water & power will be provided by GIDC. The total area notified is 12239.8 ha, out of which 8731.4ha will be net developable area. The proposed categories are biotechnology, Education, Auto, Engineering, Food processing, Chemical, Petrochemical and Power.</p> <p>Expected water demand for the proposed SIR is 175 MLD. The Narmada main canal is passing through the western edge of the proposed Halol side SIR 2 MLD water is being supplied to Halol industrial area. There is a proposed scheme for providing 12 MLD water exclusively to the industries from this canal. Water supply from Savli side SIR is from Mahi River with tapping point at Parthanpura.</p> <p>EAC in March, 2012 finalised ToR including conduct of Public Hearing.</p> <p><i>It was observed by the committee that the proponent should clearly brought out the concept of SIR in terms of existing landuse vs the proposed landuse. The proponent should provide details regarding infrastructure to be developed and</i></p>

	<p><i>responsibilities in terms of implementation, operation and maintenance of the same in future. Details of other infrastructure facilities like sewerage system and industrial effluent handling, power supply, roads, plans for existing villages within the proposed SIR. Approval of various plans including development / buffer zones, details of land holding, rehabilitation etc.</i></p> <p><i>The Committee also noted that no senior officer from the side of proponent was present for the discussion in the meeting.</i></p> <p><i>The Committee recommended to defer the proposal. The proposal shall be considered after the above observations are addressed and submitted for reconsideration.</i></p>
4.22	<p>Finalization of ToR for Multiproduct Special Economic Zone/Domestic Tariff area at Chillakur Mandal, Nellore District, Andhra Pradesh. M/s Krishnapatnam Infra Tech Private Limited. [F.No.21-09/2013-IA.III]</p> <p>As presented by the project proponent, the project involves development of a Multiproduct Special Economic Zone/Domestic Tariff Area at Chillakur Mandal, Nellore District, Andhra Pradesh. Approximate Area is 6695.95 acres (2709.3 Ha). The proposed SEZ is planned in an area of 2500 acres (1011 Ha) and rest 4149.95 acres (1679 Ha) of land is for Domestic Tariff Area (DTA). The project activities involved in the project are only for industrial area development and plotting for industrial activities. It is being expected that Pharmaceuticals – Bulk Drugs & Pharmaceuticals, Chemicals – Organic & Inorganic Chemicals, Dyes, Intermediaries, paints, Light Engineering – Base metals & Electronics etc, Heavy Engineering – Electrical machinery, Hitech, manufacturing etc, Automotive Automobiles & Auto components, Textiles & Apparels – Readymade garments, Yarn Processing, Mills etc, Food & Agro – Marine Products, Processed foods, plantation, Leather – Leather Products & accessories Plastics, Rubber, Paper, Miscellaneous Stones, Glass etc will come up in the proposed Industrial Area. Krishnapatnam Port is 6 km from the project site. Reserve Forest falls along the project site.</p> <p>Internal roads will be developed by project proponent during the area development. It is proposed to construct of internal road network in the project, Solid Waste will be collected and disposed off in a fenced pit dugout at the site and covered properly after completion of construction activity. For sewage disposal, septic tanks with soak pits will be constructed to avoid any contamination of ground water, soil or surface water. There will be water requirement of approximately 125.055 MLD including 75.357 MLD portable and 49.699 MLD non portable water requirements for workers during the construction phase based on construction activity requirement.</p> <p>After discussion, the Committee finalized the following additional ToRs to conduct EIA Studies:-</p> <ol style="list-style-type: none"> <i>i. No tannery based industries should be allowed in the proposed SEZ/DTA</i> <i>ii. The map showing future expansion area should be deleted from the presentation made during the meeting. 600 acres in the only area which has been considered.</i>

iii.	<i>Buffer of 50 m shall be kept on the area towards the forest area side</i>
iv.	<i>Green cover of 15 meters should be left all along the proposed area and no area should be allotted to any individual industry</i>
v.	<i>33 % green cover shall be reserved by each developer on his allotted plot</i>
vi.	<i>A thick vegetative boundary shall be provided around the residential area. The area should be on the downwind side.</i>
vii.	<i>Details regarding CETP individual/common shall be provided.</i>
viii.	<i>Separate clearance for marine disposal should be sought.</i>
ix.	<i>Fire safety study should be considered</i>
x.	<i>Submit the site selection details along with the alternative sites considered.</i>
xi.	<i>Submit the developments around the site along with the land use details</i>
xii.	<i>Submit the area break up, layout incorporating green belt areas</i>
xiii.	<i>Quantitative and qualitative of wastes generation should be examined and submit details along with the norms for assessment.</i>
xiv.	<i>Submit the certified maps specifying Survey Nos / plot nos etc of the SEZ area with Notification as notified by the Ministry of Commerce.</i>
xv.	<i>Submit details of the land – how much area has been notified and how much is domestic tariff area. Any other area acquired or proposed to be acquired with certified maps.</i>
xvi.	<i>The environmental monitoring plan and management plan with cost and parameters both for construction and operation</i>
xvii.	<i>Examine and submit details of potentially polluting industries likely to come within the complex which may impact on the area. Examine and submit details.</i>
xviii.	<i>Make assessment of any regulatory measure in view of the environmental and social impacts of the project (such as unauthorized development around the park).</i>
xix.	<i>Detailed drainage plan linked with the existing drainage system with capacities.</i>
xx.	<i>Examine and submit details of alternatives considered and justification of selection of the present site.</i>
xxi.	<i>Examine the baseline environmental data, including wind rose diagram, air quality and biodiversity.</i>
xxii.	<i>Identify the TSDF/BMW/E-waste generation and management agencies and destinations of their disposal.</i>
xxiii.	<i>Baseline linked to Environmental monitoring; during construction and operation should be examined.</i>
xxiv.	<i>Open spaces and space for services appear inadequate; re-examine and submit details.</i>
xxv.	<i>Zoning of industries should be done for environmental planning. Adopt the</i>

	<p><i>concept of industrial ecology.</i></p> <p>xxvi. <i>The planning of the complex should have Hierarchy of roads, their widths and rights of way based on traffic volume density</i></p> <p>xxvii. <i>Examine and submit details of hydrological and geo-hydrological studies</i></p> <p>xxviii. <i>Submit strategy and procedural safeguards for energy conservation and use of energy from renewable sources.</i></p> <p>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.</p> <p>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.</p>
4.23	<p>Finalization of ToR for Municipal Solid Waste Landfil site for Sonmarg town, Jammu and Kashmir by M/s Sonmar Development Authority. [F.No. 10-47/ 2013 - IA.III]</p> <p>As presented by the project proponent, Sonamarg a world famous Tourist Resort, has been centre of tourist attraction. Sonamarg has also attained a significant importance over last five six years as Holy Amarnath Yatries in large number have started to go for pilgrimage via Sonamarg through Baltal road.</p> <p>The proposed project is an Integrated Municipal Solid Waste Management Facility to cater the needs of municipal solid waste generated from Waste from <i>Amarnath yatra</i> , Residential waste from local people , Institutional waste, Commercial waste, Sweeping waste, Tourism Waste (Non Pilgrim), Construction waste, Slaughter house waste, Garden waste, Hotel & Restaurants. Proposed municipal solid waste landfill site in Sonamarg town, is spread over a land of 10,043 m² with Capacity of 4.54 ton/day municipal solid waste for 20 years. The proposed project is planned in accordance to the MSW rules 2000 and it consists of Compost plant, Recyclable segregation facility, Secured Landfill, Leachate treatment and reuse facility. The proposed municipal solid waste landfill site is located at Village Sarbal, in District Ganderbal, Jammu & Kashmir will be developed by Sonamarg Development Authority.</p> <p>To achieve this SDA is designing a strategic framework to ensure that the local bodies discharge their responsibilities efficiently with appropriate private sector participation in the design, management and operations of collection, transportation, processing and sanitary disposal of municipal solid waste in the area.</p> <p>The proposed municipal solid waste landfill site is located at Village Sarbal, District- Ganderbal, Jammu & Kashmir. The nearest railway station is Srinagar, situated approximate 53.50 km in NW direction. Srinagar International Airport situated in Srinagar is approximate 61.8 km in NW direction.</p> <p>Land area 10,043.0 m², Landfill site capacity is 4.54 ton/day, Life span is of 20 years, Nearest river Sindh river is ~0.38 Km in S direction, protected area Thajiwās</p>

	<p>wildlife sanctuary is within 10 km radius. National Highway Sonamarg-Baltal highway is ~Adjacent in N direction.</p> <p>Presently it is a barren land and there is no requirement of clearance of existing land, vegetation and buildings. It will be converted into Municipal Landfill site. Total Area requirement is 9433 m² Total available area is 10,043 m²</p> <p><i>The Committee observed that 77 tonnes of waste is generated and the current facility is proposed for only 4.54 tonnes/day only. It was informed that there are several individual decentralized waste disposal facilities in the area. The proponent has suggested composting as the technology for the implementation of the project, however, the temperature of the area is low most of the time. Proper justification in support of the proposed technology needs to be submitted by project proponent. The project proponent should also consider physical evacuation of the waste from the highly eco-sensitive area. The stated decentralized waste disposal facilities also need scrutiny.</i></p> <p><i>Committee decided to reconsider the proposal for TORs after submission of realistic picture of the complete disposal mechanism and photographs of the site by the PP.</i></p>
4.24	<p>Finalization of TOR for development of Special Investment Region at Santalpur & Radhanpura Taluka District–Patan, Gujarat by M/s Gujarat Industrial Development Corporation. [F. No 21-43/2012-IA.III]</p> <p>It was observed by the committee that the proponent should clearly bring out the concept of SIR in terms of existing land use vs the proposed land use. The proponent should provide details regarding infrastructure to be developed and its responsibilities in terms of implementation, operation and maintenance. Details of other infrastructure facilities like sewerage system and industrial effluent handling, power supply, roads, plans for existing villages within the proposed SIR are required. Approval of various plans including no development zones, details of land holding etc.</p> <p>The committee also noted that no senior officer from the side of proponent was present for the discussion in the meeting.</p> <p><i>The Committee recommended to defer the proposal. The proposal shall be considered after the above observations are addressed and submitted for reconsideration.</i></p>
4.25	<p>CRZ Clearance for the Development of 2-lane Alappuzha bypass of length 6.80 km. and 2-lane Kollam bypass of length 13 km. on NH-47 as standalone project in the State of Kerala [F.No.10-37/2010-IA.III]</p> <p>As presented by the project proponent, the project involves development of 2-lane Alappuzha bypass of length 6.80 km and 2-lane Kollam bypass of length 13 km on NH-47 as standalone project in the State of Kerala. Both the bypasses are standalone projects to be constructed on EPC (Engineering, Procurement & Construction) mode. The Topography along the project road is open and plain. The salient features of the proposed bypasses are as under:</p>

	<p>Alappuzha Bypass: The total length of the proposed bypass is 6.8 km (km 408.10 to km 414.9). The ROW is 45 m (except in beach portion of 1.1 km length where available ROW is 19.6m to 26.3m). 2 nos. of ROBs, one at Thamboli section km 410.170 and other at Punnapara section at km 412.83. The carriageway is 2 lane with paved shoulder (length 3.6km) & elevated road covering ROBs and beach portion (length-3.2 km). Main carriageway of 7.0 m width + 2X paved shoulder of 1.50 width + 2X Earthen shoulder of 1.00m width =12m. 14 nos. of culverts, 3 vehicular, 2 major and 4 minor junctions are proposed.</p> <p>There is no Wildlife Sanctuary or National Park or any other protected area involve. There is also no reserve/protected forest along the project road. The proposed alignment passes through Coastal Region of Alappuzha municipality and falls under CRZ II. This alignment is away from HTL and has no impact on water body.</p> <p>Kollam Bypass: The total length of the proposed bypass is 13 km (km 486.5 to km 499.5). The ROW is 45 m. The carriageway is 2 lane with paved shoulder. Main carriageway of 7.0 m width + 2X paved shoulder of 1.50 width + 2X Earthen shoulder of 1.00m width =12m. 5 nos. of new culverts are proposed, 3 major bridges, 1 vehicular underpass of size 12X5.5m at cross road km 489.700, 3 nos. of major bridges at km 487.6 - length 617km, at km 490.185 – length 95m and at km 492.265 – length 826.5m are proposed. 5 major junctions are proposed for improvement.</p> <p>The proposed road alignment crosses through Ashtamudi Kayal and through CRZ III in Thrikkadavur Panchayat.</p> <p>The length of these two proposed standalone bypasses of 2-lane on NH-47 in Kerala is less than 30 km each and no additional land acquisition is involved besides the bypasses are passing through only Kerala State.</p> <p>The Kerala Coastal Zone Management Authority has recommended the project vide letter no. 72/A3/11/KCZMA/S&TD dated 18.10.2011.</p> <p><i>The Committee decided that the Alpahuza bye pass shall be inspected by Sh. Radhakrishnan Member along with a representative of MoEF to verify the alignment and status of municipal roads in the CRZ area.</i></p> <p><i>The Committee noted that about 300 sqm mangroves areas will be affected at Kollam bypass hence recommended the CRZ clearance for Kollam by pass subject to the conditions that compensatory mangroves plantation of 1500 sqm shall be carried out.</i></p>
4.26	<p>Environmental Clearance for improvement and upgradation of Nayabazar to Namchi State Highway SK 02 in the State of Sikkim under North Eastern State Roads Investment Program-Tranche 1 roads. M/s ADB, Project and Bridges, Sikkim. [F.No.10-28/2012-IA.III]</p> <p><i>The Committee decided to defer the project, since the project proponent did not attend the meeting.</i></p>

4.27	<p>Environmental Clearance for construction of New International Arrival Block at Calicut Airport by M/s KITCO Ltd. [F. No. 10-72/2011-IA-III]</p> <p>As presented by the project proponent the project involves construction of New International Arrival Block at Calicut Airport. The proposed site for the construction of New International Arrival Block is limited to the existing Airport Campus belonging to AAI land and no new land acquisition is proposed. Further the proposed building will be adjacent to the existing terminal building. There is no expansion/modification proposed in the runway or area related to the Aircraft movement. The total plot area is 152.90 ha. proposed building will have the area of 16,809 sq.mtr with 13.9 mtr height. The proposed passenger capacity is 1500 and proposed flight operation per day is 30 arrivals and 30 departures. The estimated water requirement will be 37.80 KLD/per day and waste water generation will be 34.02 KLD. The waste water will be treated and about 30.70 KLD recycled.</p> <p>There was a complaint from “Friends of Nature” stating that area faces water scarcity, land-slides, floods, and earthquake, performance in waste disposal is poor and destruction of hills by soil caused heavy damage to the biodiversity. No steps for Rainwater harvesting. The proponent clarified the above issues very effectively and logically.</p> <p>EAC finalised ToRs in its meeting held in September, 2011 and finalised ToRs including conduct of Public Hearing. Public Hearing was conducted on 11.06.2013. Major issues raised during the PH were waste disposal, water usage etc. PP justified the conduct of PH at University about 7 km away. The issues raised had been adequately addressed.</p> <p>After deliberation the Committee decided to call for the following information:</p> <ul style="list-style-type: none"> (i) <i>Shall revise the response / action plan on the issues raised during the PH,</i> (ii) <i>Submit response on the issues raised on the complaint</i> (iii) <i>Submit Consent, EC compliances</i> (iv) <i>Improve the solid waste management</i>
4.28	<p>Environmental Clearance for widening and improvement of existing 2-lane to 4-lane/2-lane with paved shoulder of Rajganj-Maheshpur-Bhrungia-Chas-WB border section of NH-32 with Maheshpur bypass in the state of Jharkhand M/s NHAI. [F.No.10-62/2012-IA-III]</p> <p><i>Committee noted that the length is 56 km less than 100 km and additional ROW is 23 m less than 45 m. Hence the project does not require EC.</i></p>
4.29	<p>Environmental Clearance for widening of existing Single to 2-lane with paved shoulder of Gulabpura (NH-79)-Shahpura-Jahazpur-Hindole (NH-12)-Nainwa-Uniara (NH-116) (Newly Declared National Highway NH-148D) in the State of Rajasthan M/s NHAI. [F.No. 10-57/2012-IA.III]</p>

The proposed project road starts at Ch. 69.267 of NH-148D and ends at Ch. 282.936 of NH-148D. Total existing length of the project 204.500 km. Total proposed length of the project is 203.977 km. The project road is upgradation of existing Single/Intermediate lane to 2 lane with paved shoulder. Terrain of the project road is 90% plain and 10% hilly/rolling terrain. It passes through about 148 villages, 6 talukas & 3 districts namely Bhilwara, Bundi & Tonk. 4 bypasses and 9 realignments are proposed. The existing RoW varies from 6 m to 30 m and proposed RoW is 15 m to 45 m. However in three toll plaza the ROW is 150m. Total land requirement is 685.467 Ha; available land is 167.153 Ha & land to be acquired is 518.314 Ha, (Protected forest: 23.297 Ha, Reserve forest: 18.194 Ha & non forest land is 476.823 Ha). There is no wild life sanctuary or national park within 10 km radius. There are 3 number of existing major bridges & 7 number are proposed (1 retained, 4 new construction & 2 reconstructions). There are 28 number of existing minor bridges & 35 number are proposed (5 widening, 14 reconstructions & 16 new constructions). There are 284 number of existing culverts and 317 nos. are proposed (44 widening, 155 reconstructions & 118 new constructions). 1 ROB (new construction) & 1 flyover (new construction) have been proposed. 3 Toll Plazas are proposed at km 76.340 of MDR 52 , km 31.700 of SH 39 and km 77.380 of SH 39 respectively. 2.13 km of slip road is proposed. 11,810 number of trees will be felled for the proposed widening activity. The avenue plantation will be carried out as per IRC SP: 21, 2009 apart from the statutory requirement. 84 properties/structures will be affected due to the widening of the existing road. 590 KLD of water will be required during construction stage. Kota Thermal Power Plant (Kota) is within the project influence area. The fly ash is proposed to be utilized for construction of embankments if same is available. The total environment budget is 10.08 Crores; R&R cost of the project is 4.95 Crores; Total civil cost is 570.74 Crores.

The project was considered in EAC meeting held in August, 2012 which finalized ToR including conduct of Public Hearing. PH conducted at Hurda, Bhilwara district on 27.02.2013, at Hindoli, Bundi District on 25.03.2013 and at Uniara , District Tonk on 16.04.2013. The major issues raised during the hearing were land acquisition, compensation and acquisition of grazing land. The issues raised had been adequately addressed.

During the discussion, the following points emerged:

- (i) *The project indicates involvement of 23.297 ha protected and 18.194 ha Reserve forests. Necessary stage –I forestry clearance shall be obtained.*
- (ii) *It is indicated that 11,810 nos. trees to be cut. Necessary permission from competent authority shall be obtained for tree cutting. Necessary compensatory plantation shall be carried out and cost provision should be made for regular maintenance.*
- (iii) *Revise the animal passes taking into consideration Camels.*
- (iv) *Explore providing pavement along with fencing, pedestrian crossing in habitation area and submit a report.*

	<p><i>The Committee recommended to defer the proposal. The proposal shall be considered after the above observations are addressed and submitted for reconsideration.</i></p>
4.30	<p>Finalization of TORs for 4 laning of Bar-Bilara Jodhpur section of NH- 112(km 0.000 to km 106.000) in the state of Rajasthan. M/s NHAI [F.No.10-46/2013-IA-III]</p> <p>As per the amendment dated 22.07.2013 to the EIA Notification, 2006, the Scoping is exempted, the proponent can prepare the EIA based on the Model ToRs available on the Ministry's website.</p>
4.31	<p>Finalization of ToRs for 6 laning of Bangalore-Chennai Expressway from Bangalore (km0.000) to Chennai (km 258.800) including spur alignments in the States of Karnataka, Andhra Pradesh and Tamil Nadu. M/s NHAI [F.No. 10-44/2013- IA.III]</p> <p>As presented by the project proponent, the project involves construction of 6 laning of Bangalore-Chennai Expressway from Bangalore (km0.000) to Chennai (km 258.800) including spur alignments in the States of Karnataka, Andhra Pradesh and Tamil Nadu. The proposed project is a Expressway and start from the Bangalore – Chennai Section of NH-4 about 415m from Kondasapur, which is to the East of Bangalore and ends at (Km 258.800) -Sriperumbadur. The total length of the Bangalore Chennai Expressway is 258.800 Km and it falls in the states of Karnataka, Andhra Pradesh and Tamil Nadu. The proposed ROW is 90m throughout the project stretch. Spur Alignment - 3 has been provided for connectivity from the industrial town of Kolar Gold Fields (KGF)/ Robertsonpet to Bangalore Chennai Expressway. The Spur-3 alignment takes off from km 51.900 of BCE and is aligned in the Southern direction and the alignment is stopped on MDR connecting SH 95 towards Betamangal and KGF, about 2 km North of KGF as this MDR continues further and passes through KGF, and acts as a connecting road from Spur-3 to KGF. The alignment ends MDR, at km 4.94. The total length of this Spur Alignment is 2.05 km and is aligned South of Kolar in Karnataka. The proposed RoW of spur-3 is 90 m. About 2295.63 hectares of land is required for the required construction space of Bangalore-Chennai Expressway including spur-3 at Kolar Gold Fields. It includes agricultural, barren lands, forest lands and lands under private ownership. The total design length of the project is 260.84 km including Spur-3 (2.14 km) and the BCE passes through three states which are Karnataka (From Km 0.000 to Km 175.900 & Km 81.800 to Km 83.800), Andhra Pradesh (From Km 75.100 to Km 81.800 & Km 83.800 to Km 164.400) and Tamil Nadu (Km 164.400 to Km 258.800). One water tank affected due to the project road. 52 nos. of pedestrian and 41 vehicular underpasses are provided for the project road. 9 nos. of major bridges, 153 nos. of minor bridges, 143 box culverts and 2 nos. (Elephant Underpass) are to be proposed.</p> <p>The land requirement is 224.47 ha of Govt. and 2350 ha of private. The project involves forest land is of 67.12 Ha. The proposed project is passing through the Rayala Elephant Reserve for a length of about 7.083Km. Kaundinya Wildlife Sanctuary is situated at a distance of 2.2 Km from proposed Bangalore-Chennai Expressway.</p>

There are about 125 villages along the project road. The project section passes through 6 districts namely Bangalore Rural, Kolar, Chittoor, Vellore, Kachipuram and Thiruvallur. The proposed Expressway project will require felling of a total number of 876 trees within 90m RoW in Karnataka, Andhra Pradesh and Tamil Nadu section including spur-alignment in Kolar, which will be inevitable. Efforts will be made to minimize the tree felling to the possible extent. In an average about 21000 KL/day water will be consumed for the project road. The 12600 KL/day surface water will preferably be used for meeting the water requirement for construction to the possible extent depending upon the availability of water in nearby rivers/ streams with requisite permission from line department. 8400 KL/day Ground water will be used only in those areas, where there is no source of surface water. The EMP cost is approx. Rs. 149.79 crores, R&R cost is Rs. 2129.45 crores, Civil cost is Rs. 4999 crores. The total cost of the project is 7278.24 crores.

During the discussions, the Committee finalized the following additional ToRs for carrying out EIA studies:

- (i) *As the project road falls within 10 km radius from Kaundinya wild Sanctuary at 2.2 km. Necessary prior clearance from NBWL shall be obtained.*
- (ii) *The proposal indicates the acquisition of 67.12 ha ha Forest land including land within Sanctuary. Necessary stage –I forestry clearance shall be obtained..*
- (iii) *It is indicated that 1,50,000 nos. trees fall within the proposed RoW, however, bare minimum trees to 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.*
- (iv) *Committee noted that the project road passes through Rayala Elephant Reserve/ Palamaner Reserved Forest for a length of 7.083 km and requires 63.747 ha land acquisition. Submit the details of the elephant corridors.*
- (v) *Submit the details of the water bodies along the project road.*
- (vi) *Explore the possibilities for utilization of fly ash.*
- (vii) *Explore the possibilities of cooled mixed technology instead of hot mixed technology*
- (viii) *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.*
- (ix) *Submit details on borrow areas as per OM dated 18/12/2012*

	<p>(x) <i>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”.</i></p> <p>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.</p> <p>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.</p>
4.32	<p>Environmental Clearance for widening and improvement of NH- 458 from lambia – Jaitaran – Raipur including Jaitaran bypass (newly declared National Highway) 2 lane National Highway standard. M/s NHAI [F.No.10-68/2012-IA-III]</p> <p><i>Committee noted that the length is 58 km less than 100 km hence the project does not require EC.</i></p>
4.33	<p>Finalization of ToR for development of Petroleum Investment Region (PCPIR) at Dahej-vagra in a brown filed are by M/s GIDC [F.No.21-49/2010-IA.III]</p> <p>As presented by the project proponent, the project involves development of Petroleum, Chemical and Petrochemical Investment Region (PCPIR) at Dahej-Vagra in a brown field area covering 453 sq. kms. The PCPIR is specifically delineated investment region with an area of around 250 sq.km planned for the establishment of manufacturing facilities for domestic and export led production in petroleum, chemical and petrochemicals along with the associated services and infrastructure. The Department of Chemicals and Petrochemicals has already approved the setting up of PCPIR at Dahej vide letter dated 31st March, 2009. The Delhi-Mumbai Industrial Corridor will also pass through the PCPIR.</p> <p>The available area of GPCPIR is 41307 ha to be developed in two phases, Phase-I (26873 ha) and Phase-II (14434 ha). About 5988 ha is falling under CRZ area.</p> <p>The water supply will be through Narmada River and effluent disposal of 90 MLD will be disposed through deep sea pipeline diffuser. Solid wastes are to be generated from wastewater treated plants existing and commercial units in the project area. Hazardous wastes will be generated and stored in respective industrial units under shed. The wastes from these sheds will be lifted by the private operator of hazardous solid waste TSDF site.</p> <p>The main act was enacted in the year 1976 however the SIR act was enacted by the state of Gujarat in 2009. Kindly clarify whether the approval of president of India is required before enactment of the act of 2009</p> <p>During the discussions, the Committee finalized the following additional ToRs for carrying out EIA studies:</p>

	<p>i. <i>Remote sensing imagery of the entire area should be procured for last 3 years and presented along with its classification in terms of landuse/landcover.</i></p> <p>ii. <i>No industrial development should be allowed in the CRZ area. Separate CRZ clearance shall be obtained for any activity in the CRZ area.</i></p> <p>iii. <i>CRZ map at the scale of 1:4000 for the entire CRZ area prepared by the authorized agencies should be submitted in the soft and hard format</i></p> <p>iv. <i>Latest data shall be used for the preparation of EIA studies.</i></p> <p>v. <i>What is the mechanism that the infrastructure land is available to the proponent.</i></p>
4.34	<p>Environmental Clearance for widening of existing 2-lane to 4/6-lane of Solapur to Bijapur section of NH-13 in the State of Maharashtra and Karnataka M/s NHAI. [F.No. 10-58/2012-IA.III]</p> <p><i>Committee noted that the length is 58 km less than 100 km hence the project does not require EC.</i></p>
4.35	<p>Environmental and CRZ Clearance for Vizhinjam International Container Transshipment Terminal at Vizhinjam by M/s Vizhinjam Port Ltd [F.No. 11-122/2011-IA-III]</p> <p>The Committee noted that the State Government has not responded and provided comments on the various representations received w.r.t. the proposed project. PP was also informed that some more representations have been handed over by some persons on the meeting day, a copy of which will also be provided to the State Government. Principal Secretary, State Government was, therefore, requested to respond to all these representations. Consideration of proposal was, therefore, deferred till the next meeting.</p>
4.36	<p>Finalization of ToR for Development of Bulk Liquid Berth for handling LNG at Karaikal Port-Environmental Clearance-reg. M/s Karaikal Port Private Ltd. [F.No. 11 -41/ 2013 - IA.III]</p> <p><i>The Committee decided to defer the project, since the project proponent did not circulate the documents in time.</i></p>
4.37	<p>Finalization of ToR for re-development of existing activities at Cochin Port Trust [F.No.11-45/2013-IA.III]</p> <p>As presented by the project proponent, the project involves redevelopment of existing activities of Cochin Port Trust, Kerala. Cochin Port is currently handling 20.09 MTPA of General Cargo, Liquid Cargo, Dry Bulk Cargo, Clean Cargo and 1,300 passenger capacity cruise vessels with existing 17 berths.</p> <p>With the proposed expansion/modernization activities at existing 17 berths, the capacity would be enhanced to handle 36.38 MTPA (General Cargo, Liquid Cargo, Dry</p>

Bulk Cargo, Clean Cargo), 92,000 ECU/annum and 3,500 passenger capacity cruise vessels. An area of ~ 40.1 hectares (ha) has been earmarked for backup area of dry bulk cargo, backup area for cruise terminal, storage area for Ro-Ro berth and tank farms for liquid cargo. In addition, an area of 104.07 ha is envisaged as part of redevelopment of Willingdon Island to include Logistics Park, Ship Repair Yard and Free Trade Ware Housing Zone (FTWZ). Cochin Port activities are mainly on Willingdon Island and proposed redevelopment activities are also on the island. A new road bridge is proposed connecting Willingdon Island to Palluruthy area (main land) on the south west part of the city. Existing port facility is already handling POL products. The proposed expansion plan also includes Hazardous liquid cargo (Class A), POL products. Handling of fuel oils required for port operations will be stored/ used as per the stipulations laid; risks associated with handling, storage of hazardous materials.

The estimated water requirement is about 8 MLD which will be sourced from KWA/ proposed new water treatment plant. Power requirement – 85 MVA for the port will be met from substations of Kerala State Electricity Board (KSEB) and partly from DG sets as required. The wastewater generated from the toilets, bathrooms and other areas at the port will be drained directly to the sewerage treatment unit to be set up at the port premises and the treated water to be reused. Currently only septic tanks are available.

During the discussions, the Committee finalized the following additional ToRs for carrying out EIA studies:

- (i) *Shall obtain necessary NOC from MOD/ Defence authority, as applicable.*
- (ii) *Submit the recommendation of the Kerala CZMA.*
- (iii) *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.*
- (iv) *Submit a copy of layout superimposed on the HTL/LTL map demarcated by an authorized agency on 1:4000 scale along with the recommendation of the SCZMA.*
- (v) *Submit details of Environmental Management Plan and Environmental Monitoring Plan with parameters and costs.*
- (vi) *Submit the details of the fishing activity and likely impact due to the activity.*
- (vii) *Details of solid / liquid wastes generation and their management.*
- (viii) *Water requirement, source, impact on competitive users.*
- (ix) *Submit the details of the eco-sensitive areas, if any.*
- (x) *Submit the details of Oil Spill Contingent Management Plan.*

- (xi) *Submit the details of study on connectivity and its carrying capacity (both road and railway).*
- (xii) *The General guidelines as per the annexure-II to this Minutes shall also be considered for preparation of EIA/EMP.*
- (xiii) *Examine the impacts on marine environment & biological environment due to the development of proposed port.*
- (xiv) *Examine Social impact of the project on the nearby fishing habitations.*

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.

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.*

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| | <p>(x) <i>Submit details about measures taken for the pedestrian safety and construction of underpasses and foot-over bridges along with flyovers and interchanges.</i></p> <p>(xi) <i>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).</i></p> <p>(xii) <i>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.</i></p> <p>(xiii) <i>Examine and submit the details of sand quarry, borrow area and rehabilitation.</i></p> <p>(xiv) <i>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.</i></p> <p>(xv) <i>The air quality monitoring should be carried out as per the new notification issued on 16th November, 2009.</i></p> <p>(xvi) <i>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.</i></p> <p>(xvii) <i>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.</i></p> <p>(xviii) <i>Also examine and submit the details about the protection to existing habitations from dust, noise, odour etc. during construction stage.</i></p> <p>(xix) <i>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.</i></p> <p>(xx) <i>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</i></p> |
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	<p><i>examined and submit.</i></p> <p>(xxi) <i>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.</i></p> <p>(xxii) <i>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.</i></p> <p>(xxiii) <i>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.</i></p> <p>(xxiv) <i>If there will be any change in the drainage pattern after the proposed activity, details of changes shall be examined and submitted.</i></p> <p>(xxv) <i>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.</i></p> <p>(xxvi) <i>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.</i></p> <p>(xxvii) <i>Submit the details of road safety, signage, service roads, vehicular under passes, accident prone zone and the mitigation measures.</i></p> <p>(xxviii) <i>IRC guidelines shall be followed for widening & upgradation of road.</i></p> <p>(xxix) <i>Submit details of social impact assessment due to the proposed construction of road.</i></p> <p>(xxx) <i>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.</i></p> <p>(xxxii) <i>Accident data and geographic distribution should be reviewed and analyzed to predict and identify trends – incase of expansion of the existing highway and provide Post accident emergency assistance and medical care to accident victims.</i></p> <p>(xxxiii) <i>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.</i></p>
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- (xxxiii) *Details of the properties, houses, businesses etc. activities likely to be effected by land acquisition and their financial loses annually.*
- (xxxiv) *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 for 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.*

126th Meeting of the Expert Appraisal Committee for Projects related to Infrastructure Development, Coastal Regulation Zone, Building/Construction and Miscellaneous projects held from 19th – 21st September, 2013 in the Conference Hall, IOC, Scope Complex, Lodhi Road, New Delhi.

List of Participants

Expert Committee

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| 1. Shri Anil Razdan | Chairman |
| 2. Dr. M.L. Sharma | Member |
| 3. Sh. R. Radhakrishnan | Member |
| 4. Dr. M.V. Ramana Murthy | Member |
| 5. Dr. R. Prabhakaran | Member |
| 6. Dr. Anuradha Shukla | Member |
| 7. Shri S.K. Sinha | Member |
| 8. Shri Y.B. Kaushik | Member |
| 9. Shri Lalit Kapur | Member Secretary |

MoEF officials

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