

Minutes of the 28th Meeting of Expert Appraisal Committee (Infra-2) for Projects related to All Ship Breaking Yard including Ship Breaking Unit, Airport, Common Hazardous Waste Treatment, Storage and Disposal Facilities, Ports and Harbours, Aerial Ropeways, CETPs, Common Municipal Solid Waste Management Facility, Building/Construction Projects, Townships and Area Development Projects held on 5th March, 2018 in the Ministry of Environment, Forest and Climate Change, Indira Paryavaran Bhawan, New Delhi – 3.

Day: Monday, 5th March, 2018

28.1 Opening Remarks of the Chairman

At the outset, Chairman welcomed the members of the Expert Appraisal Committee (Infra-2). Thereafter, agenda items were taken up for discussion. The deliberations held and decisions taken are as under.

28.2 Confirmation of the Minutes of the 27th Meeting of the EAC held on 25th January, 2018 at New Delhi.

The minutes of the 27th Meeting of the EAC held on 25th January, 2018 were confirmed and following correction was made in the minutes of 27th Meeting of the EAC held on 25th January, 2018.

Agenda item No.	Minuting	Correction/To be read as
27.3.9 of 27 th Meeting of the EAC held on 25 th January, 2018	<i>The Committee deliberated upon the information provided by the Project Proponent. The Committee after being satisfied with the submission of the Project Proponent recommended the project for grant of Environmental and CRZ clearance subject to the submission of documents/information sought and stipulated the following specific conditions along with other environmental conditions while considering for accord of environmental and CRZ clearance:</i>	<i>The Committee deliberated upon the information provided by the Project Proponent. The Committee after being satisfied with the submission of the Project Proponent recommended the project for grant of Environmental and CRZ clearance and stipulated the following specific conditions along with other environmental conditions while considering for accord of environmental and CRZ clearance:</i>

28.3 Consideration of Proposals

28.3.1	<p>Modification of existing Common Hazardous Waste Treatment, Storage and Disposal Facilities (CHWTSDF) at Ranjangaon, near Pune and Butibori, near Nagpur, Maharashtra by M/s Maharashtra Enviro Power Ltd - Terms of Reference (IA/MH/MIS/71726/2017; F.No. 10-3/2018-IA-III)</p> <p>The project proponent gave a detailed presentation on the salient features of the project and informed that:</p> <p>(i) The proposal is to modify/downsize capacity of existing incineration facility from 3 T/h to 1 T/h of Common Hazardous Waste Treatment, Storage and Disposal Facilities (CHWTSDF) at Plot No. CHW-01, MIDC Butibori, Tehsil Hingna, Village Mandwa, Butibori 441 122, District Nagpur by Maharashtra Enviro Power Limited (MEPL). It is within notified industrial estate of MIDC, Butibori, Nagpur. The site is well connected by road, having adequate capacity for electrical connection and</p>
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adequate supply of MIDC water.

- (ii) The coordinates are Latitude: 20°56'15"N and Longitude: 78°56'00"E. MEPL is located at MIDC Butibori, Nagpur, Maharashtra which is notified industrial estate. In 10 Km radius of the site land use can be prominently divided into open land, some hilly region, Built Up land and Agricultural land.
- (iii) The present land available at entire site is 3,08,900 sqm (76 acres approx). Built-up area is about 2,00,000 sqm and Green belt area is 50,000 sqm. Nearest railway station to the site is Buitbori - 8.5 km in E, Nearest Airport is Babasaheb Ambedkar International Airport and well connected with nearest city and district headquarters Nagpur - 23 km in NNE.
- (iv) Hazardous waste from industries both within MIDC and from nearby areas i.e. Amravati, Akola, Bhandara, Buldhana, Chandrapur, Gondia, Gadchiroli, Nagpur, Wardha, Wasim and Yavatmal districts are transferred to existing CHWTSDf facility at Nagpur. The existing facility has dedicated hazardous waste transportation vehicles for the transportation of hazardous waste from industry to facility. Inorganic waste is being disposed into Landfill while organic waste till now is transferred to TSDf site at Ranjangaon.
- (v) Existing water requirement of 1870 KLD is met through water supply from MIDC water supply system. The same shall be continued for proposed modification facility for which 479 KLD water will be required.
- (vi) The project is not located in Critically Polluted area.
- (vii) The project does not involve diversion of forest land.
- (viii) The project does not falls within 10 km of eco - sensitive area.
- (ix) Cost of the project is Rs. 8 Crore.
- (x) Employment potential: Existing facility has already appointed 30 skilled, semi-skilled and un-skilled workers from the local area. With the restarting of incineration operation at the facility, an additional 20 more skilled, semi-skilled and un-skilled workers will be employed at the facility.
- (xi) Benefits of the project: As less amount of incinerable waste was being received, existing incineration facility was shut down in 2010 and existing waste was being transferred to CHWTSDf facility at MIDC Ranjangaon, Pune. However there was an increase in incinerable waste during 2016-17 but still very less compared to existing incinerator capacity 3 T/h so, by setting up a rotary incinerator with 1 T/h capacity from 3 T/h, MEPL intends to treat the waste instead of transferring it to MEPL facility at MIDC, Ranjangaon. Thus, MEPL facility of MIDC, Butibori will not transport any waste to MEPL facility of MIDC, Ranjangaon.

During deliberations, the EAC noted the following:-

- (i) The proposal is for grant of Terms of Reference to the project 'Modification of existing Common Hazardous Waste Treatment, Storage and Disposal Facilities (CHWTSDf) at Ranjangaon, near Pune and Butibori, near Nagpur, Maharashtra by M/s Maharashtra Enviro Power Ltd. The proposal is to modify/downsize capacity of existing incineration facility from 3 T/h to 1 T/h of CHWTSDf.
- (ii) The project/activity is covered under category A of item 7(d) 'Common hazardous

waste treatment, storage and disposal facilities (TSDFs)' of the Schedule to the EIA Notification, 2006 and its subsequent amendments, and requires appraisal at Central level by Sectoral EAC.

The Committee noted that the request has been made for issuing a "No increase in Pollution Certificate" for modifications proposed in the existing common Hazardous waste Treatment and Disposal facility at Butibori, near Nagpur, Maharashtra and that according to the project proponent, the project would not require an Environmental Clearance.

The project proponent was advised that since an environmental clearance has not been availed earlier therefore, the provisions of S.O. 3518 (E) dated 23.11.2016 would not apply and they will have to seek an environmental clearance after duly fulfilling the requirements as prescribed in the EIA Notification, 2006, which mandates an EIA report and public hearing. It was also informed that the earlier incinerator installed has been non functional for the last 05 years.

It was also given to be understood that though the covering letter requests for a "No increase in Pollution" Certificate because an Environmental Clearance is not required yet a Form 1 has been submitted. The project proponents were directed to submit a clear request in this regards that they would require Environmental Clearance and apply to the Ministry afresh for Terms of Reference.

28.3.2 Shri Radha Rani Ropeway at Radha Rani Temple, Barsana, Mathura, Uttar Pradesh by M/s Shri Radha Rani Ropeways Pvt Ltd - Terms of Reference (IA/UP/MIS/72361/2018; F.No. 10-5/2018-IA-III)

The project proponent and the accredited Consultant M/s PERFECT Enviro Solutions Pvt. Ltd. gave a detailed presentation on the salient features of the project and informed that:

- (i) The Radha Rani temple at Barsana is located on top of a hill. Currently, the mode of travel from the settlement at the foot of the hill to the temple at the top includes either walking up the 190-200 steps or on a palanquin, which can be costly and time consuming. With a view to increase its religious tourism & providing better transit facilities to pilgrims, the Department of Tourism, Government of Uttar Pradesh has identified three sites for development of ropeway facilities as a pilot project. One of those chosen sites is the Radha Rani temple at Barsana, Mathura.
- (ii) The ropeway will be built in one phase with its Upper Terminal Point at the west corner of the Radha Rani temple and the Lower Terminal Point at the forest land on the northern part of the foothills.
- (iii) The proposed Development of Ropeway shall be developed at Radha Rani temple, Barsana, Mathura by Shri Radha Rani Ropeways Pvt. Ltd. The proposed system to be installed will be Mono-Cable Pulsed Gondola System. The alignment will be 216.241 metres in length with an elevation difference of 33 metres, covering an area of 14082.61 sqm (including Terminal Stations, ropeway corridor & Parking Area). The elevation of LTP is 193.0 m & UTP is 226.0 m above MSL.
- (iv) The latitude longitude of the site is given below:

Station	Latitude	Longitude
Terminal T1 (LTP)	27°39'6.13"N	77°22'20.39"E

Terminal T2 (UTP)

27°38'59.60"N

77° 22'21.36"E

- (v) The project being an Aerial Ropeway falls under the item 7 (g) of the EIA notification, 2006 and is a designated Project as per Schedule and falls under category A, as Inter-State Boundary of Rajasthan falls within 5 km and thus, General Conditions Apply. There is no eco-sensitive zone within 10 km radius of the project.
- (vi) Maximum of 50 numbers of laborers will be deployed during construction phase. Ropeway will have carrying capacity of 400 PPH during peak 2 hours while rest of the normal 8 hours the capacity will be 50 PPH. Operation of 10 hrs of ropeway is envisaged. Total Population of 1350 persons/day will use the ropeway out of which 1200 visitors and 25 staff for Ropeway & Shops, 25 residents for accommodation and 100 population for restaurant will envisage.
- (vii) Proper arrangement of water supply and sewage disposal will be made at site. DG Sets of 1x125 KVA shall be provide at LTP for main power backup and 1x50 KVA shall be provided at lower terminal for rescue motor backup. These D.G. Sets will be provided with proper stack height as per the CPCB norms & will be bought acoustically enclosed.
- (viii) The total water requirement has been estimated as 28 KLD and the source will be municipal supply. Water shall be used mainly for domestic, flushing, drinking, hand washing & horticulture purposes. Total quantity of waste water generation has been estimated to be 16 KLD. The waste water generated shall be disposed off in 2 number of soak pits via septic tanks.
- (ix) Maximum 203 kg/day & minimum 68 kg/ day of total waste will be generated due to the proposed development. Out of which the Organic Waste of maximum 142 kg/day & minimum 48 kg/day will be treated in Organic Waste Convertor and converted into compost & the Recyclable Waste of maximum 61 kg/day & minimum 20 kg/day will be collected and given to approved recycler.
- (x) There will be no displacement or immigration of the human population due to the proposed project. Risk assessment shall be done and proper safety and security measures shall be undertaken. Proper prevention and timely maintenance of ropes, machines etc will be scheduled to prevent any accident. Maintenance team will be trained to handle any type of contingency in time of emergency. All safety guidelines shall be adhered to and followed during construction and operation phases. First aid facilities will be provided at site.
- (xi) Total cost of the ropeway project is Rs.15.5 crores.

During deliberations, the EAC noted the following:-

- (i) The proposal is for grant of Terms of Reference to the project 'Shri Radha Rani Ropeway at Radha Rani Temple, Barsana, Mathura, Uttar Pradesh by M/s Shri Radha Rani Ropeways Pvt Ltd. The alignment will be 216.241 metres in length with an elevation difference of 33 metres, covering an area of 14082.61 sqm (including Terminal Stations, ropeway corridor & Parking Area)
- (ii) The project/activity is covered under category B of item 7(g) 'Aerial Ropeways' of the Schedule to the EIA Notification, 2006 and its subsequent amendments, and requires appraisal at State level. However due to applicability of general condition i.e. Inter-State boundary of Rajasthan falls at 2.45 km W, the proposal becomes

category A and is appraised at Central Level.

After detailed deliberations on the proposal, the Committee *recommended for grant of Terms of Reference as specified by the Ministry as Standard ToR in April, 2015 for the said project/activity and the following TOR in addition to Standard ToR for preparation of EIA-EMP report:*

- (i) Necessary approval from TTZ Authority shall be submitted.
- (ii) Importance and benefits of the project.
- (iii) A toposheet of the study area of radius of 10km and site location on 1:50,000/1:25,000 scale on an A3/A2 sheet. (including all eco-sensitive areas and environmentally sensitive places)
- (iv) Stage – I forest clearance to be submitted.
- (v) Permission for felling of trees shall be submitted.
- (vi) Toposheet map of 10 km distance indicating eco-sensitive areas dully authenticated by the Wildlife warden.
- (vii) Route map of proposed ropeway project.
- (viii) Layout maps of proposed project indicating location of upper station and lower station, building, food court, parking, greenbelt area, utilities etc.
- (ix) Numbers of persons/projections of tourist.
- (x) Cost of project and time of completion.
- (xi) A note on appropriate process and materials to be used to encourage reduction in carbon foot print. Optimize use of energy systems in buildings that should maintain a specified indoor environment conducive to the functional requirements of the building by following mandatory compliance measures (for all applicable buildings) as recommended in the Energy conservation building code (ECBC) 2007 of the Bureau of Energy Efficiency, Government of India. The energy system includes air conditioning systems, indoor lighting systems, water heaters, air heaters and air circulation devices. Use
- (xii) Details of air emission, effluents, solid waste and hazardous waste generation and their management.
- (xiii) Requirement of water, power, with source of supply, status of approval, water balance diagram, man-power requirement (regular and contract).
- (xiv) The E.I.A. should specifically address to vehicular traffic management and parking facilities.
- (xv) Examine the ground water / water body contamination from septic tank/Soak pit.
- (xvi) The impact of odors from the bio-toilets and its management.
- (xvii) The increment in foot falls as a result of implementation of the project along with a justification on the adequacy of the existing and proposed infrastructure including toilets.
- (xviii) An assessment of the impact of all activities being carried out or proposed to be carried out by the project shall be made for traffic densities and parking capabilities

in a 2 kms radius from the site. A detailed traffic management and a traffic decongestion plan drawn up through an organization of repute and specializing in Transport Planning shall be submitted with the EIA.

(xix) An onsite disaster management plan shall be drawn up to account for risks and accidents. This onsite plan shall be dovetailed with the onsite management plan for the district.

(xx) The E.I.A. would study the safety risks associated with the construction and operation of the Ropeway and draw up a detailed safety management plan.

(xxi) The impact of the ropeway on traffic movement, both at the L.T. and the U.T. will be examined and a plan submitted along with the E.I.A.

(xxii) The E.I.A. would also submit a plan ensuring the segregation of passenger cars with luggage cars in the ropeway and work out the minimum size of baggage to be allowed on the passenger cabin cars.

(xxiii) Any litigation pending against the project and/or any direction/order passed by any Court of Law against the project, if so, details thereof shall also be included.

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

(xxv) Public hearing to be conducted and issues raised and commitments made by the project proponent on the same should be included in EIA/EMP Report in the form of tabular chart with financial budget for complying with the commitments made.

(xxvi) A tabular chart with index for point wise compliance of above ToR.

It was recommended that 'ToR' along with Public Hearing prescribed by the Expert Appraisal Committee (Infrastructure- 2) should be considered for preparation of EIA/ EMP report for the above mentioned project in addition to all the relevant information as per the 'Generic Structure of EIA' given in Appendix III and IIIA in the EIA Notification, 2006. The draft EIA/EMP report shall be submitted to the State Pollution Control Board for public hearing. The issues emerged and response to the issues shall be incorporated in the EIA report.

28.3.3 Proposed 'Common Bio-Medical Waste Treatment Facility (CBWTF)' at Khasra No. 4446, Village Maheshpura, Tehsil & District Jalore, Rajasthan by M/s Instromedix India Pvt Ltd - Terms of Reference
(IA/RJ/MIS/72433/2018; F.No. 10-6/2018-IA-III)

The project proponent and the accredited Consultant M/s Gaurang Environmental Solutions Pvt Ltd gave a detailed presentation on the salient features of the project and informed that:

(i) M/s Instromedix (India) Pvt Ltd proposes to set up a Common Bio-Medical Waste Treatment Facility (CBWTF) at Khasra No. 4446, Village Maheshpura, Tehsil & District Jalore Rajasthan.

(ii) Total plot area is 12,300 sqm (3.04 Acres). Land use details are as follows:

S. No.	Particulars	Area (sqm)	Percentage (%)
1.	Work Shed, Office	1870.00	15.20 %

2.	Green Belt	4182.00	34%
3.	Open Surface & Undisturbed Area	6248.00	50.80 %
Total		12300 sqm (3.04 Acres)	100%

(iii) Capacity of the Plant is as follows:

Particular	Capacity	Nos.
Incinerator	150 kg/h	1+1
Autoclave	100 kg/ batch	1+1
Shredder	100 kg/h	1+1
ETP	1500 lit/h	1

(iv) Total 5 KLD water is required for the proposed project. Water requirement is given as:

S. No	Particulars	Water Demand (KLD)
1.	Floor washing, Container, vehicle washing etc	1 KLD
2.	Domestic Use	1 KLD
3.	Venturi Scrubber	1 KLD
4.	Green Belt Development	2 KLD
Total		5 KLD

- (v) Cost of the project is Rs. 2 crores.
- (vi) The project is not located in Critically Polluted area.
- (xii) The project does not involve diversion of forest land.
- (xiii) The project does not falls within 10 km of eco - sensitive area.
- (vii) Employment potential: The Project in the area envisages employing 25 people.
- (viii) Benefits of the project: The unit will collect, transport and treat the biomedical waste of the surrounding area & disposed by in an effective manner to maintain the healthier environment.

During deliberations, the EAC noted the following:-

- (i) The proposal is for grant of Terms of Reference to the project 'Proposed Common Bio-Medical Waste Treatment Facility (CBWTF)' at Khasra No. 4446, Village Maheshpura, Tehsil & District Jalore, Rajasthan by M/s Instromedix India Pvt Ltd.
- (ii) The project/activity is covered under category B of item 7(d) 'Bio-Medical Waste Treatment Facility' of the Schedule to the EIA Notification, 2006 and its subsequent amendments, and requires appraisal at State level by SEIAA/SEAC, Rajasthan. However, due to non existence of SEIAA/SEAC in Rajasthan, the proposal is appraised at Central level.

After detailed deliberations on the proposal, the Committee recommended for grant of Terms of Reference as specified by the Ministry as Standard ToR in April, 2015 for the said project/activity and the following ToR in addition to Standard ToR for preparation of EIA-EMP report:

- (i) Importance and benefits of the project.
- (ii) To carry out a sensitivity analysis of alternative sites as per the “Guidelines for conducting Environmental Impact Assessment: site selection for common Hazardous waste management facility published by the CPCB in 2003.”
- (iii) Project proponents would also submit a write up on how their project proposals conform to the stipulations made in the “Protocol for Performance evolution and monitoring of the Common Hazardous Waste Treatment Storage and Disposal facilities including common Hazardous Waste incinerators”, published by the CPCB on May 24, 2010.
- (iv) The E.I.A. would include a separate chapter indicating the conformity of the project to the stipulations made under the Bio Medical Waste Management Rules, 2016.
- (v) Status of compliance to the provisions of the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016.
- (vi) The project proponents would submit a certificate that no expansion, modernization or capacity enhancement has been undertaken after the introduction of the EIA notification.
- (vii) The project proponents would submit a para wise certified compliance report to the consent to operate and the authorization received from the State Pollution Control Board for the existing facilities.
- (viii) Details of various waste management units with capacities for the proposed project.
- (ix) List of waste to be handled and their source along with mode of transportation.
- (x) Other chemicals and materials required with quantities and storage capacities.
- (xi) Details of temporary storage facility for storage of hazardous waste at project site.
- (xii) Details of pre-treatment facility of hazardous waste at TSDF.
- (xiii) Details of air emissions, effluents, hazardous/solid waste generation and their management.
- (xiv) Requirement of water, power, with source of supply, status of approval, water balance diagram, man-power requirement (regular and contract).
- (xv) Process description along with major equipments and machineries, process flow sheet (quantitative) from waste material to disposal to be provided.
- (xvi) Hazard identification and details of proposed safety systems.
- (xvii) Layout maps of proposed Solid Waste Management Facilities indicating storage area, plant area, greenbelt area, utilities etc.
- (xviii) Details of Drainage of the project up to 5 km radius of study area. If the site is within 1 km radius of any major river, peak and lean season river discharge as well as flood occurrence frequency based on peak rainfall data of the past 30 years. Details of Flood Level of the project site and maximum Flood Level of the river shall also be provided.
- (xix) Ground water quality monitoring in and around the project site.
- (xx) Status of the land purchases in terms of land acquisition Act and study the impact.

	<p>(xxi) Status of acquisition of land. If acquisition is not complete, stage of the acquisition process and expected time of complete possession of the land.</p> <p>(xxii) R&R details in respect of land in line with state Government policy.</p> <p>(xxiii) Details of effluent treatment and recycling process.</p> <p>(xxiv) Leachate study report and detailed leachate management plan to be incorporated.</p> <p>(xxv) Action plan for measures to be taken for excessive leachate generation during monsoon period.</p> <p>(xxvi) Action plan for any pollution of ground water is noticed during operation period or post closure monitoring period.</p> <p>(xxvii) Detailed Environmental Monitoring Plan as well as Post Closure Monitoring Plan.</p> <p>(xxviii) Public hearing to be conducted and issues raised and commitments made by the project proponent on the same should be included in EIA/EMP Report in the form of tabular chart with financial budget for complying with the commitments made.</p> <p>(xxix) Any litigation pending against the project and/or any direction/order passed by any Court of Law against the project, if so, details thereof shall also be included. Has the unit received any notice under the Section 5 of Environment (Protection) Act, 1986 or relevant Sections of Air and Water Acts? If so, details thereof and compliance/ATR to the notice(s) and present status of the case.</p> <p>(xxx) A tabular chart with index for point wise compliance of above ToR.</p> <p><i>It was recommended that 'ToR' along with Public Hearing prescribed by the Expert Appraisal Committee (Infrastructure- 2) should be considered for preparation of EIA/ EMP report for the above mentioned project in addition to all the relevant information as per the 'Generic Structure of EIA' given in Appendix III and IIIA in the EIA Notification, 2006. The draft EIA/EMP report shall be submitted to the State Pollution Control Board for public hearing. The issues emerged and response to the issues shall be incorporated in the EIA report.</i></p>
<p>28.3.4</p>	<p>Common Bio Medical Waste Treatment Facility located at Village Ram Chak Bairiya, Tehsil & District Patna, Bihar by M/s Sangam Mediserve Pvt Ltd - Terms of Reference</p> <p>(IA/BR/MIS/72993/2018; F.No. 10-7/2018-IA-III)</p> <p>The project proponent gave a detailed presentation on the salient features of the project and informed that:</p> <p>(i) A Common Bio-Medical Waste Treatment Facility (CBWTF) is now proposed to be setup by Sangam Mediserve Pvt Ltd having its registered office at Plot 189, Sector D, Phaphamau, Santipuram, Allahabad with Indira Gandhi Institute of Medical Sciences (IGIMS)-Raja Bazaar Sekhpura, Patna on Public Private Partnership (PPP) Mode where bio-medical waste, treated from healthcare units, from currently approx. 850 Hospital that's include all Govt. and private health care facilities operational in Patna division i.e. Ara, Buxar, Rohtash, Kaimur, Bihar Sharif and Patna districts of state of Bihar will be suitably treated to reduce adverse effects that this waste may pose.</p> <p>(ii) At present the waste of all the health care facilities is treated by a facility</p>

established inside the premises of the Indira Gandhi Institute of Medical Sciences (IGIMS)-Raja Bazaar, Shekhpura, Patna.

- (iii) The same Common Bio-Medical Waste Treatment Facility (CBWTF) is shifted to a new location. After shifting same land will be utilized for the purpose of expansion of Hospital i.e. additional 500 bedded hospital.
- (iv) The E.I.A. would include a separate chapter indicating the conformity of the project to the stipulations made under the Bio Medical Waste Management Rules, 2016.
- (v) As per Bio-Medical waste Management Rule - 2016 and its amendment Column No -17 Site for common bio-medical waste treatment and disposal facility: Without prejudice to rule 5 of these rules, the department in the business allocation of land assignment shall be responsible for providing suitable site for setting up of common biomedical waste treatment and disposal facility in the State Government or Union territory Administration
- (vi) On the same ground Government of Bihar allocated land for establishment of Common Bio-Medical Waste Treatment Facility (CBWTF) to IGIMS-Patna.
- (vii) The objective of the proposed project is to:-
- Establish an Integrated Common Bio-medical Waste Management facility including the Incinerator, autoclave, shredder and effluent treatment plant and require accessories as per the rule and guidelines.
 - Collection of Segregated Biomedical waste and its transportation, storage, treatment and disposal in accordance to the Bio-Medical Waste Management Rules, 2016 as amended thereof and Central Pollution Control Guideline.
 - Compliances with statutory and environmental norms.
 - Develop concise waste management principles.
 - Introduce a continuing waste management education program for all staff members to increase awareness of occupational health & safety issues and waste minimization principles.
 - Adopt policies and procedures to minimize the environmental impacts of waste treatment and disposal.
 - Reporting to regulatory authorities as needed.
- (viii) The proposed facility is located on an area of 1.5 Acre which is allotted by Nagar Nigam, Patna.
- (ix) Details of the Capacity of the equipments is mentioned below:

S. No.	Equipment to be installed	Capacity	Number	Alternate and additional arrangement
1	Incinerator	5 Ton per day (250 Kg/Hour)	2	Installed two numbers of Incinerator one is standby arrangement.
2	Autoclave	5 Ton per day	2	Installed two numbers of autoclave one is standby arrangement.
3	Shredder	3.3 Tons	1	Nil

During deliberations, the EAC noted the following:-

- (i) The proposal is for grant of Terms of Reference to the project 'Common Bio Medical Waste Treatment Facility' located at Village Ram Chak Bairiya, Tehsil & District Patna, Bihar by M/s Sangam Mediserve Pvt Ltd.
- (ii) The project/activity is covered under category B of item 7(da) 'Bio-Medical Waste Treatment Facility' of the Schedule to the EIA Notification, 2006 and its subsequent amendments, and requires appraisal at State level by SEIAA/SEAC, Bihar. However, due to non existence of SEIAA/SEAC in Bihar, the proposal is appraised at Central level.

After detailed deliberations on the proposal, the Committee recommended for grant of Terms of Reference as specified by the Ministry as Standard ToR in April, 2015 for the said project/activity and the following ToR in addition to Standard ToR for preparation of EIA-EMP report:

- (i) Importance and benefits of the project.
- (ii) To carry out a sensitivity analysis of alternative sites as per the "Guidelines for conducting Environmental Impact Assessment: site selection for common Hazardous waste management facility published by the CPCB in 2003."
- (iii) Project proponents would also submit a write up on how their project proposals conform to the stipulations made in the "Protocol for Performance evolution and monitoring of the Common Hazardous Waste Treatment Storage and Disposal facilities including common Hazardous Waste incinerators", published by the CPCB on May 24, 2010.
- (iv) Status of compliance to the provisions of the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016.
- (v) Compliance to the conditions of the consent to operate and authorization. A separate chapter on status of compliance of conditions given in consent to operate to be provided in EIA-EMP report.
- (vi) The project proponents would submit a certificate that no expansion, modernization or capacity enhancement has been undertaken after the introduction of the EIA notification.
- (vii) The project proponents would submit a para wise certified compliance report to the consent to operate and the authorization received from the State Pollution Control Board for the existing facilities.
- (viii) Details of various waste management units with capacities for the proposed project.
- (ix) List of waste to be handled and their source along with mode of transportation.
- (x) Other chemicals and materials required with quantities and storage capacities.
- (xi) Details of temporary storage facility for storage of hazardous waste at project site.
- (xii) Details of pre-treatment facility of hazardous waste at TSDF.
- (xiii) Details of air emissions, effluents, hazardous/solid waste generation and their management.

	<ul style="list-style-type: none"> (xiv) Requirement of water, power, with source of supply, status of approval, water balance diagram, man-power requirement (regular and contract). (xv) Process description along with major equipments and machineries, process flow sheet (quantitative) from waste material to disposal to be provided. (xvi) Hazard identification and details of proposed safety systems. (xvii) Layout maps of proposed Solid Waste Management Facilities indicating storage area, plant area, greenbelt area, utilities etc. (xviii) Details of Drainage of the project up to 5 km radius of study area. If the site is within 1 km radius of any major river, peak and lean season river discharge as well as flood occurrence frequency based on peak rainfall data of the past 30 years. Details of Flood Level of the project site and maximum Flood Level of the river shall also be provided. (xix) Ground water quality monitoring in and around the project site. (xx) Status of the land purchases in terms of land acquisition Act and study the impact. (xxi) Status of acquisition of land. If acquisition is not complete, stage of the acquisition process and expected time of complete possession of the land. (xxii) R&R details in respect of land in line with state Government policy. (xxiii) Details of effluent treatment and recycling process. (xxiv) Leachate study report and detailed leachate management plan to be incorporated. (xxv) Action plan for measures to be taken for excessive leachate generation during monsoon period. (xxvi) Action plan for any pollution of ground water is noticed during operation period or post closure monitoring period. (xxvii) Detailed Environmental Monitoring Plan as well as Post Closure Monitoring Plan. (xxviii) Public hearing to be conducted and issues raised and commitments made by the project proponent on the same should be included in EIA/EMP Report in the form of tabular chart with financial budget for complying with the commitments made. (xxix) Any litigation pending against the project and/or any direction/order passed by any Court of Law against the project, if so, details thereof shall also be included. Has the unit received any notice under the Section 5 of Environment (Protection) Act, 1986 or relevant Sections of Air and Water Acts? If so, details thereof and compliance/ATR to the notice(s) and present status of the case. (xxx) A tabular chart with index for point wise compliance of above ToR. <p><i>It was recommended that 'ToR' along with Public Hearing prescribed by the Expert Appraisal Committee (Infrastructure- 2) should be considered for preparation of EIA/ EMP report for the above mentioned project in addition to all the relevant information as per the 'Generic Structure of EIA' given in Appendix III and IIIA in the EIA Notification, 2006. The draft EIA/EMP report shall be submitted to the State Pollution Control Board for public hearing. The issues emerged and response to the issues shall be incorporated in the EIA report.</i></p>
<p>28.3.5</p>	<p>Proposed Sanitary Landfill at Tehkhand, Okhla, South East Delhi , Delhi by M/s South</p>

Delhi Municipal Corporation Delhi - Terms of Reference**(IA/DL/MIS/71829/2017; F.No. 10-8/2018-IA-III)**

The project proponent and the accredited Consultant M/s Amaltas Enviro Industrial Consultants LLP gave a detailed presentation on the salient features of the project and informed that:

- (i) The proposed project is for setting up of Municipal Solid Waste Landfill at Okhla Dump site. It has been decided to close the existing Okhla Dump site and to establish an Engineered Landfill site at the recently allotted space, approximately 32 acre in the vicinity of the existing Dump Site.
- (ii) The proposed project falls under Item 7(i) (Common Municipal Solid Waste Management facilities) as per the Environmental Impact Assessment Notification dated September 14, 2006 and its amendments. The project is fall under Category A due to general condition applied, (the site is within 5 km radius of Asola Wild Life Sanctuary & Okhla Bird Sanctuary ESZ, Delhi-Haryana Interstate Boundary and Critically Polluted Okhla Industrial Area) and requires Environmental Clearance from Ministry of Environment, Forest and Climate Change (MoEF&CC), New Delhi.
- (iii) Key features of the proposed project is follows:

S. No.	Information	Details			
	Area	Total Area-32 acre			
	Water Requirement and its Source	Phase	Construction	Operation	Source
		Construction/Operation	2KLD	6KLD	Supply Tankers
		Dust Suppression & Green Belt Development	2KLD	-	
		Closure	6KLD	400KLD	Delhi Jal Board & Treated sewage water from Okhla STP
		Total	10KLD	406KLD	

- (iv) Leachate generation is approx. 100 kilo litres/day which will be treated in the Leachate.
- (v) The treated leached shall be recycled or utilized as permitted, otherwise will be released into the sewage line, after meeting the standards specified in schedule 2 of SWM rules 2016
- (vi) Total water requirement during construction and operation phase will be 406 KLD. Source of Water during Construction shall be Supply Tanker and during Operation shall be Delhi Jal Board & Treated sewage water from Okhla STP.
- (vii) Investment/Cost of the project is 45 Crores.
- (viii) Indirect employment may also generate during construction phase of project. Tea stalls, and food joints may come up around project site for workers.
- (ix) Benefits of the project: Project will generate both direct & indirect employment. Prevention of air, water & soil contamination. No open dumping of waste, which

leads to soil, water & air pollution. Also littering waste is ground for breeding mosquitoes, which become agents of various deadly diseases.

During deliberations, the EAC noted the following:-

- (i) The proposal is for grant of Terms of Reference to the project 'Proposed Sanitary Landfill' at Tehkhand, Okhla, South East Delhi, Delhi by M/s South Delhi Municipal Corporation Delhi.
- (ii) The project/activity is covered under category B of item 7(i) 'Common-Municipal Solid Waste Management Facility' of the Schedule to the EIA Notification, 2006 and its subsequent amendments, and requires appraisal at State level by SEIAA/SEAC, Delhi. However, due to applicability of General Condition i.e. Inter-State boundary of Delhi-Haryana falls at approx. 200 m in South Direction, the proposal becomes category A and is appraised at Central Level.

After detailed deliberations on the proposal, the Committee recommended for grant of Terms of Reference as specified by the Ministry as Standard ToR in April, 2015 for the said project/activity and the following ToR in addition to Standard ToR for preparation of EIA-EMP report:

- (i) Importance and benefits of the project.
- (ii) A sensitivity analysis of the site shall be carried out as per the MoEF&CC criteria and form part of the EIA report.
- (iii) The EIA would include a separate chapter to discuss the conformity of the proposals to the direction of the Honourable Supreme Court in the matter and to any other orders that may have been passed by the Hon'ble NGT regarding the maintenance of air quality in the NCR.
- (iv) The EIA would specifically address to the impact of the project on the ambient air quality of the NCR and draw up a management plan integrating it with any measures proposed by the Government.
- (v) The impact of the project proposals on the nearby Air Force station shall be studied along with a discussion on whether the activity is allowed in the vicinity of the Air Force station.
- (vi) The EIA would include a separate chapter on the conformity of the proposals to the Municipal Solid Waste Management Rules, 2016 and the Construction and Demolition Waste Management Rules, 2016 including the sitting criteria therein.
- (vii) An integrated plan of operation including the segregation of wastes at the household level and its transportation to the site shall be submitted. List of waste to be handled and their source along with mode of transportation.
- (viii) Details of various waste management units with capacities for the proposed project. Details of utilities indicating size and capacity to be provided.
- (ix) The EIA would also examine the impacts of the existing land fill site and include a chapter on the closure of the exiting site including disposal of accumulated wastes and capping.
- (x) The EIA would give complete details of the incinerator/power plant, its impacts and the status of Environment Clearance.

- (xi) The project proponents should consult the Municipal solid waste Management manual of the Ministry of Urban Development, Government of India and draw up project plans accordingly.
- (xii) Waste management facilities should maintain safe distance from the nearby pond.
- (xiii) Methodology for remediating the project site, which is presently being used for open dumping of garbage.
- (xiv) Layout maps of proposed solid waste management facilities indicating storage area, plant area, greenbelt area, utilities etc.
- (xv) Details of air emission, effluents generation, solid waste generation and their management.
- (xvi) Requirement of water, power, with source of supply, status of approval, water balance diagram, man-power requirement (regular and contract).
- (xvii) Process description along with major equipments and machineries, process flow sheet (quantitative) from waste material to disposal to be provided.
- (xviii) Hazard identification and details of proposed safety systems.
- (xix) Details of Drainage of the project upto 5 km radius of study area. If the site is within 1 km radius of any major river, peak and lean season river discharge as well as flood occurrence frequency based on peak rainfall data of the past 30 years. Details of Flood Level of the project site and maximum Flood Level of the river shall also be provided.
- (xx) Details of effluent treatment and recycling process.
- (xxi) Action plan for measures to be taken for excessive leachate generation during monsoon period.
- (xxii) Detailed Environmental Monitoring Plan.
- (xxiii) Report on health and hygiene to be maintained by the sanitation worker at the work place.
- (xxiv) Public hearing to be conducted and issues raised and commitments made by the project proponent on the same should be included in EIA/EMP Report in the form of tabular chart with financial budget for complying with the commitments made.
- (xxv) Any litigation pending against the project and/or any direction/order passed by any Court of Law against the project, if so, details thereof shall also be included. Has the unit received any notice under the Section 5 of Environment (Protection) Act, 1986 or relevant Sections of Air and Water Acts? If so, details thereof and compliance/ATR to the notice(s) and present status of the case.
- (xxvi) A tabular chart with index for point wise compliance of above ToRs.

It was recommended that 'ToR' along with Public Hearing prescribed by the Expert Appraisal Committee (Infrastructure- 2) should be considered for preparation of EIA / EMP report for the above mentioned project in addition to all the relevant information as per the 'Generic Structure of EIA' given in Appendix III and IIIA in the EIA Notification, 2006. The draft EIA/EMP report shall be submitted to the State Pollution Control Board for public hearing. The issues emerged and response to the issues shall be incorporated in the EIA report.

28.3.6	<p>India-based Neutrino Observatory (INO) at village Pottipuram, Taluk Uthamapalayam, District Theni, Tamil Nadu by M/s Tata Institute of Fundamental Research – Environmental Clearance</p> <p>(F.No. 21-67/2010-IA-III; IA/TN/NCP/72042/2018)</p> <p>The project proponent and the accredited Consultant M/s MITCON Consultancy and Engineering Services Ltd gave a detailed presentation on the salient features of the project and informed that:</p> <ul style="list-style-type: none"> (i) The project is located at 77°17'5.32"E and 9°56'46.20"N. (ii) The project is new. Earlier Environment Clearance was accorded by MoEF&CC vide F.No. 21-67/2010-I.A.III dated 1st June 2011. As per the orders passed by the NGT(March 2017), the Environmental Clearance given by the MoEF&CC, Government of India, has been held in abeyance and INO has been asked to obtain clearance from the National Board for Wild Life and apply for fresh environmental clearance with the MoEF&CC. (iii) The total plot area required over ground 26.825 ha and Underground 4.62 ha. The project will comprise of 4 Buildings. Total construction area of Underground facility is 20,552 sqm & Over ground facility is 10,762 sqm. Maximum heights of the building will be 10 m. (iv) During construction phase, total water requirement is expected to be 5 KLD which will be met by tanker. During the construction phase STP will be used for treatment & disposal of waste water. (v) During operational phase, total water demand of the project is expected to be 340 KLD and the same will be met by the 20 KLD drinking & service and 320 KLD cooling water. Wastewater generated (15 KLD) uses will be treated in STPs of total 15 KLD capacity. 15 KLD of treated wastewater will be recycled for flushing & gardening). Treated wastewater will be reused and will not be disposed in to drain. (vi) About 36 kg/day solid waste will be generated in the project. The biodegradable waste (21.6 kg/day) will be processed in OWC and the non-biodegradable waste generated (14.4 kg/day) will be handed over to authorized local vendor. (vii) The total power requirement during construction phase is 100 KW and will be met from Periyar-Theni TNEB / D.G. set and total power requirement during operation phase is 3.0 MW and will be met from Periyar-Theni TNEB / D.G. set. (viii) Rooftop rainwater of buildings will be harvested in 2RWH pits with size 3mx3mx 3m(D). Excess water will be drained to local stream. (ix) Parking facility for 5-four wheelers and 10 two wheelers is proposed to be provided against the requirement of 2 and 3 respectively (according to local norms). (x) Proposed energy saving measures would save about 10% of power. (xi) Eco Sensitive areas - Mathikettan Shola National Park in Idukki District, Kerala - Within 5 Km from the proposed project site. (xii) Court case details: <ul style="list-style-type: none"> 1. PIL filed by Shri Vaiko in February, 2015 in the Madurai bench of the Madras High Court, W.P. (MD) No.733 of 2015. Interim orders have been passed that
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"restrains INO from commencement of any research work without PCB clearance".

2. Appeal No. 6 of 2015 filed by Shri G. Sundarrajan before NGT (SZ) at Chennai. As per the orders passed by the NGT (March, 2017), the Environmental Clearance given by the MoEF&CC, Government of India has been held in abeyance and INO has been asked to obtain clearance from the National Board for Wild Life and apply for fresh environmental clearance with the MoEF&CC.

- (xiii) Investment/Cost of the project is Rs. 300 crore.
- (xiv) Employment potential: Direct & indirect employment is envisaged.
- (xv) Benefits of the project: INO is projected to be a world class underground science laboratory straddling many fields. One of the largest basic sciences projects in India. (Nearly 100 scientists from 25 research institutes and Universities all over India.). Testifies to the collaborative spirit of the scientific community. Main aim to study naturally occurring particles-neutrinos. World-wide interest due to implications; possible technology spin-offs. INO will galvanise physics research around the country. Expertise gained here will contribute to other physics projects around the world.

During deliberations, the EAC noted the following:-

- (i) The proposal is for grant of environmental clearance to the project 'India-based Neutrino Observatory (INO)' at Pottipuram village, Uthamapalayam Taluk, Theni District Tamil Nadu by M/s Tata Institute of Fundamental Research in a total plot area of 31.445 ha (over ground 26.825 ha and underground 4.62 ha) and total construction (built-up) area of 31,314 sqm (underground facility is 20,552 sqm & over ground facility is 10,762 sqm).
- (ii) Earlier Environment Clearance was accorded by MoEF&CC vide F.No. 21-67/2010-I.A.III dated 1st June 2011. As per the orders passed by the NGT(March 2017), the Environmental Clearance has been held in abeyance and INO has been asked to obtain clearance from the National Board for Wild Life and apply for fresh environmental clearance with the MoEF&CC.
- (iii) Forest Clearance (Stage-1) was granted by MoEF&CC vide letter No. 4-TNC729/2010- BAN/8111 dated 27/29.10.2010.
- (iv) Mathikettan Shola National Park in Idukki District, Kerala is situated within 5 Km from the proposed project site. The Project Proponent has also applied for NBWL Clearance.
- (v) The proposal was applied to SEAC/SEIAA, Tamil Nadu for grant of Environmental Clearance under category 'B' of item 8(a) 'Building and Construction Projects' of the Schedule to the EIA Notification, 2006 and its subsequent amendments.
- (vi) The proposal was considered by the SEAC, Tamil Nadu in its 98th meeting held on 27.11.17. After deliberation the SEAC committee noted that the project cannot be appraised under 8 (a) 'Building and construction project' for the following reasons:
 - a. The tunnelling work involves carrying out blasting in hard and composite rock mass and requires huge quantity of high strength explosives to break it. Further, the tunnelling work involves the excavation of 600000 cubic metre of Charnockite rock

from the mountain.

- b. The tunnel and Cavern will be at the depth of 1000 m from the top of the Mountain. At the depth of 1000 m, mountain rock would be under tremendous pressure and the vertical stress is expected to be greater than 270 kilogram per metre square. This will create problems like Rock bust and roof collapse. The proposals of the PP regarding the safeguards will have to be scrutinized using the Geo-technical studies
- c. The SEAC in general is of the view that the Western Ghats is a global biodiversity hotspots and treasure trove of biological diversity. It harbours many endemic species of flowering plants and endemic fishes and amphibians, reptiles, birds, mammals and invertebrates and it also an important centre of evolution of economically important domesticated plant species.
- d. Also the proposed site forms part of catchment of various streams and streamlet's and ultimately contribute to the Vaigai watershed which forms life support and livelihood of the dependent communities by providing water for drinking and agricultural need in 5 districts of Tamil Nadu.

In view of the preceding paragraph, the SEAC, Tamil Nadu was of opinion that this proposal cannot be appraised under 8 (a) as it involves many technical features other than a mere construction. SEIAA, Tamil Nadu was also of the opinion, that this project should be appropriately handled by Government of India.

- (vii) Considering the National importance of the proposal, Ministry decided to appraise the proposal at the Central level as a special case by sectoral EAC (Infra-II) Committee.
- (viii) Accordingly, proposal was considered by EAC (Infr-2) in its 27th meeting held on 25th January, 2018. The Committee deliberated on the proposal and noted that the proposal is one of the largest basic science projects in India, nearly 100 scientists from 25 Research Institutes and Universities all over India are involved and it testifies to the collaborative spirit of the scientific community. The proposal involves construction, mining, tunnelling, Cavern and scientific research. These aspects also need to be deliberated in detail during appraisal. The Committee was of opinion that Expert(s) from relevant fields like Mining/Geology and Research institutes may also invited for discussing this proposal. The Committee after detailed deliberation sought following additional information:
 - a. Submit the detailed Geo Technical Investigation Report on study carried out for locating underground laboratory of INO on Pottipuram Site.
 - b. Detailed status of Court cases pending/disposed against the project.
 - c. Details of public meeting held on 08.07.2010 by Collector with 1200 local villagers from Pottipuram Panchayat in tabular form along with action plan.

The project proponent submitted desired information on 20.02.2018. The Committee deliberated upon the information provided by the Project Proponent. Expert from Defence Research and Development Organisation (DRDO), Government of India was also present during the deliberation.

The committee was given to understand that though the proposals are not within the scope for the EAC the Ministry would want the EAC (Infra-2) to consider this as a special

case and that based on built up area and total area considerations this is a category 8(a) project. The project proponents also informed that the earlier E.C. granted in 2011 was for an 8(a) project and that there are no changes in the proposals as conceived earlier (for which the E.C. was granted in 2011) and the present proposals. It was also stated that since the earlier E.C. has been quashed by the Hon'ble Court, a certified compliance report may not be required and that no work has been initiated on site.

The committee was also informed that the earlier concerns of radioactivity and leaching of water, as raised in the representation to the courts have been explained to the court also and that there is no scope of any radio activity or leaching of water. They have also categorically clarified that based on studies there will be no impact of blasting on any inhabitation in the vicinity.

The EAC, after detailed deliberations on the proposal and submissions made by the project proponent, recommended the project for grant of environmental clearance and stipulated the following specific conditions along with other environmental conditions while considering for accord of environmental clearance:

- (i) Consent to Establish/Operate for the project shall be obtained from the State Pollution Control Board as required under the Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974.
- (ii) Necessary Forest Clearances and NBWL clearances shall be availed as per law before implementation of project proposals.
- (iii) The approval of the Competent Authority shall be obtained for structural safety of buildings due to earthquakes, adequacy of firefighting equipment etc as per National Building Code including protection measures from lightening etc.
- (iv) The project proponent shall obtain all necessary clearance/ permission from all relevant agencies including town planning authority before commencement of work. All the construction shall be done in accordance with the local building byelaws.
- (v) The laboratory will draw up and implement a comprehensive risk and Disaster Management Plan with the concurrence of the competent Government Regulatory Authority and seek necessary approvals as required in this regards. The Disaster Management Plan should include emergency response plan based on the consequence analysis studies.
- (vi) Consequence analysis for the worst case scenario for the blasting gelatin and fuel should be carried out. Necessary safety distances to be maintained from other facilities based on physical effects/ statutory regulations.
- (vii) The high hazard category facilities need to be thoroughly assessed for risks and contributing factors, using safety tools. Mitigative measures to be adopted to minimize risk. A hazard mapping should be done based on the hazard categories identified.
- (viii) There shall be no impact of blasting on any inhabitation in the vicinity.
- (ix) The project proponents will study the environmental management plans and best practices of other similar laboratories located globally and draw up a detailed Environmental Management plan for implementation. A dedicated Environment Monitoring Cell with defined functions and responsibility shall be put in place to implement the EMP. The environmental cell shall ensure that the environment infrastructure like Sewage Treatment Plant, Landscaping, Rain Water Harvesting,

	<p>Energy efficiency and conservation, water efficiency and conservation, solid waste management, renewable energy etc. are kept operational and meet the required standards. The environmental cell shall also keep the record of environment monitoring and those related to the environment infrastructure.</p> <ul style="list-style-type: none"> (x) The laboratory will attempt to maximize the generation and use of solar power. (xi) The laboratory will draw up a plan for disposal of excavated material with the concurrence of Forest Department and the Revenue Department and implement the same. (xii) Fresh water requirement from Mullai Periyar River Supply shall not exceed 340 KLD. (xiii) Any ground water dewatering should be properly managed and shall conform to the approvals and the guidelines of the CGWA in the matter. Formal approval shall be taken from the CGWA for any ground water abstraction or dewatering. (xiv) Sewage shall be treated in the STP with tertiary treatment i.e. Ultra Filtration. The treated effluent from STP shall be recycled/re-used for flushing and plantation. (xv) The local bye-law provisions on rain water harvesting should be followed. If local bye-law provision is not available, adequate provision for storage and recharge should be followed as per the Ministry of Urban Development Model Building Byelaws, 2016. (xvi) Separate wet and dry bins must be provided in each unit and at the ground level for facilitating segregation of waste. Solid waste shall be segregated into wet garbage and inert materials. Wet garbage shall be composted in Organic Waste Converter. Adequate space shall be provided for solid waste management within the premises which will include area for segregation, composting. The inert waste from group housing project will be sent to dumping site. (xvii) A minimum of 1 tree for every 80 sqm of land should be planted and maintained. The existing trees will be counted for this purpose. Preference should be given to planting native species. Where the trees need to be cut, compensatory plantation in the ratio of 1:3 (i.e. planting of 3 trees for every 1 tree that is cut) shall be done and maintained.
<p>28.3.7</p>	<p>Common Effluent Treatment Plant at Paithan Mega Food Park, Post Wahegaon and Dhangaon, Taluka Pathan, District Aurangabad, Maharashtra by M/s Paithan Mega Food Park - Reconsideration for Environmental Clearance (F.No.10-9/2016-IA-III; IA/MH/MIS/33865/2015)</p> <p>The proposal was earlier considered by the EAC (Infra-2) in its 18th meeting held on 25-27 May, 2017 and 27th meeting held on 25th January, 2018. During 27th meeting, the EAC noted that the Project proponent has not submitted the inlets norms of CETP as approved by the Maharashtra State pollution Control Board. After detailed deliberation, the Committee sought following additional information:</p> <ul style="list-style-type: none"> (i) Submit the inlet quality standards prescribed by the Maharashtra State Pollution Control Board (MPCB). Letter dated 13.12.2017 issued by MPCB does not suffice the purpose. (ii) Submit copy of the consent to establish issued by the MPCB for the Food Park vide dated 02.07.2016. (iii) The irrigation plan submitted does not appear to be satisfactory. Water consumption

	<p>has been shown as 2000 KLD, ETP design at 1000 KLD and irrigation capacity at 810 KLD. 5 Litres per square meter proposed is appeared to be in excess. Submit the revised Irrigation Management Plan.</p> <p><i>The project proponent submitted desired information on 16.02.2018. The EAC deliberated on the submission made by the project proponent. The committee observed that the inlet quality parameters have not yet been provided as a result of which the committee finds itself at a loss to evaluate the various unit operations and their capacity to conform to the effluent quality standards. The Committee expressed its surprise at the contention of the Maharashtra Pollution Control Board that inlet quality standards are not validated by the Board for private CETP's because of the fact that no subsidies are granted.</i></p> <p><i>The project proponents were explained the provision of the standards prescribed by the MoEF&CC for CETP's through notification dated 04.01.2016 and that it is mandatory for the State Board to provide 'inlet quality Standards' and also the 'Treated Quality Standards' They were also explained that inlet quality standards are prescribed to ascertain uniform flow of effluents to the CETP and provide for primary treatment to conform to these standards by the constituent units. Without this discipline a CETP would not work. The committee also felt that the irrigation plan was very sketchy and needs to be discussed in details. After deliberation on the proposal, the Committee sought following documents/certificates:</i></p> <ul style="list-style-type: none"> (i) The project proponents were advised to get the inlet and effluent quality standards validated by the Board and provide details of primary treatment systems prescribed for individual units, the conveyance system and the management of non compliance by constituent units. (ii) The irrigation plan submitted does not appear to be satisfactory. Submit the revised Irrigation Management Plan referring standard irrigation plans. <p><i>The proposal was, therefore, deferred till the desired information is submitted.</i></p>
28.3.8	<p>Proposed CETPs - 7MLD project at Kandrori by M/s Himachal Pradesh State Industrial Development Corporation Limited - Environmental Clearance (IA/HP/MIS/30305/2015, 10-24/2015-IA-III)</p> <p>The proposal was earlier considered by the EAC in its 19th meeting held on 27-29 June, 2017, <i>After detailed deliberations, Committee sought following additional information:</i></p> <ul style="list-style-type: none"> (i) As per the MoEF&CC standards for CETP's, seek the inlet quality standards from the State Pollution Control Board and put up before the EAC. (ii) NOC from ground water department for use of groundwater. (iii) Details of water balance to be provided. (iv) Issues raised and commitments made by the project proponent during the Public hearing to be provided in the form of tabular chart with action plan for complying with the commitments made. (v) Details of member industries, their production capacity, waste generation, effluents characteristic and primary treatment provided by the member units. (vi) Details design of green belt to be provided.

	<p><i>The project proponent submitted desired information on 29.12.2017. The EAC deliberated on the submission made by the project proponent. The EAC was informed that inlet water quality parameter standard for CETP are under process for Notification by HPSPCB. The Committee was not satisfied with the submission of the project proponent. After deliberation on the proposal, the project proponent asked to submit the following documents/certificates:</i></p> <ul style="list-style-type: none"> (i) Inlet Quality Standards as prescribed by the Himachal Pradesh Pollution Control Board (HPPCB). (ii) Details of member industries, their production capacity, waste generation, effluents characteristic and primary treatment provided by the member units. (iii) A comprehensive irrigation management plan. (iv) Details of Primary treatment systems proposed for individual units, the conveyance system and the management of non compliances by constituent unit. (v) Risk assessment report specific to the project site. <p><i>The proposal was, therefore, deferred till the desired information is submitted.</i></p>
<p>28.3.9</p>	<p>Proposed CETP's - 5MLD at Pandoga, Himachal Pradesh by M/s Himachal Pradesh State Industrial Development Corporation Limited - Environmental Clearance (IA/HP/MIS/30340/2015, 10-25/2015-IA-III)</p> <p>The proposal was earlier considered by the EAC in its 19th meeting held on 27-29 June, 2017, <i>After detailed deliberations, Committee sought following additional information:</i></p> <ul style="list-style-type: none"> (i) As per the MoEF&CC standards for CETP's, seek the inlet quality standards from the State Pollution Control Board and put up before the EAC. (ii) NOC from ground water department for use of groundwater. (iii) Details of water balance to be provided. (iv) Issues raised and commitments made by the project proponent during the Public hearing to be provided in the form of tabular chart with action plan for complying with the commitments made. (v) Details of member industries, their production capacity, waste generation, effluents characteristic and primary treatment provided by the member units. (vi) Details design of green belt to be provided. <p><i>The project proponent submitted desired information on 29.12.2017. The EAC deliberated on the submission made by the project proponent. The EAC was informed that inlet water quality parameter standard for CETP are under process for Notification by HPSPCB. The Committee was not satisfied with the submission of the project proponent. After deliberation on the proposal, the project proponent asked to submit the following documents/certificates:</i></p> <ul style="list-style-type: none"> (i) Inlet Quality Standards as prescribed by the Himachal Pradesh Pollution Control Board (HPPCB). (ii) Details of member industries, their production capacity, waste generation, effluents

	<p>characteristic and primary treatment provided by the member units.</p> <p>(iii) A comprehensive irrigation management plan.</p> <p>(iv) Details of Primary treatment systems proposed for individual units, the conveyance system and the management of non compliances by constituent unit.</p> <p>(v) Risk assessment report specific to the project site.</p> <p>(vi) E.I.A. Report for Pandoga, Una. (the documents uploaded on Ministry's website relates to E.I.A. report for Kandrori.)</p> <p><i>The proposal was, therefore, deferred till the desired information is submitted.</i></p>
28.3.10	<p>Development of New Civil Enclave at Allahabad Air Force Base (U.P.) at Bamrauli, Allahabad, Uttar Pradesh by M/s Airports Authority of India, Allahabad – Environmental Clearance</p> <p>(IA/UP/MIS/57365/2016; F.No. 10-50/2016-IA-III)</p> <p>The project proponent and the accredited Consultant M/s ABC Techno labs gave a detailed presentation on the salient features of the project and informed that:</p> <p>(i) The proposal is for Development of 'New Civil Enclave at Allahabad Air Force Base' at Village Bamrauli, District Allahabad, Uttar Pradesh by Airports Authority of India (AAI).</p> <p>(ii) Latitude and Longitude of the proposed Civil Enclave are 25°25'59.75" N & 81°44'28.06" E. New civil enclave will be located on 50 Acres area, which will be transferred by State Government, which will be located close to existing Air Force Base. Link Taxiway: 563 m x 23 m with 3.5 m wide shoulders, Apron: 71.6 m x 93.5 m with 3.5 m (suitable for 2 Nos. A-320 type of Air Craft), proposed Terminal Building: 6500 sqm (Peak Capacity 300 passengers), Car parking: 200 cars taxis.</p> <p>(iii) The proposed civil enclave will be approached from NH-2, which is about 2 km. As per agreement State Govt. of Uttar Pradesh will constructed 4 lane road from NH -2 to proposed civil enclave.</p> <p>(iv) Water requirement for the Proposed Civil Enclave is 60 KLD and will be extracted through bore wells. Necessary permission will be obtained for ground water extraction. 32 KLD sewage will be generated during operation of proposed civil enclave which will be treated in STP of capacity 40 KLD. Membrane bioreactor (MBR) Technology will be used for treatment of waste water at proposed Civil Enclave. After treatment, treated wastewater will be reused for flushing, landscaping and green belt purpose.</p> <p>(v) Approx. 90 kg per day solid waste will be generated during operation of the project, which will be collected, segregated and managed by external agency for disposal. Various components of solid waste management, at proposed civil enclave. Used waste oil from maintenance of DG sets and batteries, electronic wastes will be collected separately and will be sold to authorize recyclers as per CPCB/ UPPCB guidelines.</p> <p>(vi) Green belt/plantation is proposed on 1,10,737 sqm area (54.72%) at the proposed Civil Enclave.</p> <p>(vii) At proposed civil enclave, necessary measures will be taken for conservation of energy in line with 'Energy Conservation Building Code 2017' and 'National Building Code 2016'.</p>

- (viii) Estimated cost of the project is Rs. 150 Crores.
- (ix) There is no critically polluted area within 10 Km radius area from the proposed civil enclave.
- (x) There is no wildlife sanctuary, national park or any other ecological sensitive area within 10 km distance.
- (xi) There is no wildlife sanctuary, national park or any other ecological sensitive area within 10 km distance.
- (xii) Expert Appraisal Committee (Infra-2) in its meetings held on 28-29 July, 2016 and 21-24 August, 2017 considered project and ToR was finalized vide letter F. No. 10-50/2016-IA-III dated 15th September, 2017.
- (xiii) For the development of New Civil Enclave, public hearing was conducted by U.P. Pollution Control Board (UPPCB) on 29 January 2018 at 11.00 AM at Civil Air Terminal Premises, Bamrauli Air Force Base (U.P.), Allahabad. People present in the public hearing expressed pleasure after hearing details of the project and no person expressed any objection.
- (xiv) The direct and indirect benefits of the proposed Civil Enclave at Allahabad are: better infrastructure facilities for passenger, promotion of religious tourism especially during Kumbh, Ardh Kumbha and Annual fair at Sangam (Confluence of Ganga and Yamuna), increase in regional economy as it will boost tourism, trade and commercial activities in the region, generation of more revenue to the state, hence more development of the region, boost in religious tourism and more people to travel in the state, easy access to High court from other part of Uttar Pradesh, employment opportunity to people, more business and industrial opportunities etc.
- (xv) Employment: Direct Employment during construction Phase 12 (regular) 80 to 100 (contract) and during operation Phase 15 (regular) and 60 (contract). Indirect Employment More than 500.

During deliberations, the EAC noted the following:-

- (i) The proposal is for grant of Environmental Clearance to the project 'Development of New Civil Enclave at Allahabad Air Force Base (U.P.) at Bamrauli, Allahabad, Uttar Pradesh by M/s Airports Authority of India, Allahabad.
- (ii) New civil enclave will be located on 50 Acres area, which will be transferred by State Government, which will be located close to existing Air Force Base. Link Taxiway: 563 m x 23 m with 3.5 m wide shoulders, Apron: 71.6 m x 93.5 m with 3.5 m (suitable for 2 Nos. A-320 type of Air Craft), proposed Terminal Building: 6500 sqm (Peak Capacity 300 passengers), Car parking: 200 cars taxis.
- (iii) The project/activity is covered under category 'A' of item 7 (a) i.e. 'Airports' of the schedule to the EIA Notification, 2006 and its subsequent amendments, and requires appraisal at Central level.
- (iv) ToR was granted by the Ministry vide letter No. 10-50/2016-IA-III dated 15.09.2017 along with Public Hearing.
- (v) Public hearing was conducted by U. P. Pollution Control Board (UPPCB) for the Development of New Civil Enclave, on 29.01.2018 at Civil Air Terminal Premises, Bamrauli Air Force Base, Allahabad.

The EAC deliberated upon the issues raised during the Public Hearing/Public Consultation meeting conducted by the U. P. Pollution Control Board on 30.01.2018. The project proponent informed that the People present in the public hearing expressed pleasure after hearing details of the project and no person expressed any objection.

The EAC, on being satisfied with the submissions of the project proponent, recommended the project for grant of environmental clearance and stipulated the following specific conditions along with other environmental conditions while considering for accord of environmental clearance:

- (i) As proposed, Environmental Clearance is for Construction of 'Development of New Civil Enclave at Allahabad Air Force Base (U.P.) at Bamrauli, Allahabad, Uttar Pradesh by M/s Airports Authority of India, Allahabad.
- (ii) Project Proponent shall be obtained clearance from Directorate General of Civil Aviation (DGCA) and Airports Authority of India (AAI) for safety and project facilities.
- (iii) Consent to Establish/Operate for the project shall be obtained from the State Pollution Control Board as required under the Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974.
- (iv) Construction site should be adequately barricaded before the construction begins.
- (v) Soil and other construction materials should be sprayed with water prior to any loading, unloading or transfer operation so as to maintain the dusty material wet.
- (vi) The soil/construction materials carried by the vehicle should be covered by impervious sheeting to ensure that the dusty materials do not leak from the vehicle.
- (vii) The excavation working area should be sprayed with water after operation so as to maintain the entire surface wet.
- (viii) Soil stockpile shall be managed in such a manner that dust emission and sediment runoff are minimised. Ensure that soil stockpiles are designed with no slope greater than 2:1 (horizontal/vertical). Top soil shall be separately stored and used in the development of green belt.
- (ix) A detailed drainage plan for rain water shall be drawn up and implemented.
- (x) Ground water abstraction and rain water recharge shall be as may be prescribed by the CGWA. A clearance of the CGWA shall be obtained in this regards.
- (xi) Noise from vehicles and power machinery and equipment on-site should not exceed the prescribed limit. Equipment should be regularly serviced. Attention should also be given to muffler maintenance and enclosure of noisy equipments.
- (xii) Where construction activity is likely to cause noise nuisance to nearby residents, restrict operation hours between 7 am to 6 pm.
- (xiii) Solid inert waste found on construction sites consists of building rubble, demolition material, concrete; bricks, timber, plastic, glass, metals, bitumen etc shall be reused/recycled or disposed off as per Solid Waste Management Rules, 2016 and Construction and Demolition Waste Rules, 2016.
- (xiv) Diesel power generating sets proposed as source of backup power for elevators and common area illumination during operation phase should be of enclosed type and

conform to rules made under the Environment (Protection) Act, 1986. The height of stack of DG sets should be equal to the height needed for the combined capacity of all proposed DG sets. Use of low sulphur diesel. The location of the DG sets may be decided with in consultation with State Pollution Control Board.

- (xv) Aircraft maintenance, sensitivity of the location where activities are undertaken, and control of runoff of potential contaminants, chemicals etc shall be properly implemented and reported.
- (xvi) Proper drainage systems, emergency containment in the event of a major spill during monsoon season etc shall be provided.
- (xvii) The runoff from paved structures like Runways, Taxiways, can be routed through drains to oil separation tanks and sedimentation basins before being discharged into rainwater harvesting structures.
- (xviii) Storm water drains are to be built for discharging storm water from the air-field to avoid flooding/water logging in project area during monsoon season / cloud bursts.
- (xix) Rain water harvesting for roof run-off and surface run-off, as plan submitted should be implemented. Before recharging the surface run off, pre-treatment must be done to remove suspended matter, oil and grease.
- (xx) Total fresh water requirement from existing bore wells shall not exceed 60 KLD with permission from CGWB.
- (xxi) Sewage Treatment Plant (STP) of 40 KLD capacity to treat the wastewater generated from airport. Treated water will be reused for flushing, landscaping and green belt purposes.
- (xxii) Acoustic enclosures for DG sets, noise barriers for ground-run bays, ear plugs for operating personnel shall be implemented as mitigation measures for noise impact due to ground sources.
- (xxiii) During airport operation period, noise should be controlled to ensure that it does not exceed the prescribed standards. During night time the noise levels measured at the boundary of the building shall be restricted to the permissible levels to comply with the prevalent regulations. A monitoring station for ambient air and noise levels shall be provided in the village nearest to the airport.
- (xxiv) The solid wastes shall be segregated as per the norms of the Solid Waste Management Rules, 2016. Recycling of wastes such as paper, glass (produced from terminals and aircraft caterers), metal (at aircraft maintenance site), plastics (from aircrafts, terminals and offices), wood, waste oil and solvents (from maintenance and engineering operations), kitchen wastes and vegetable oils (from caterers) shall be carried out.
- (xxv) Traffic congestion near the entry and exit points from the roads adjoining the Airport shall be avoided. Parking should be fully internalized and no public space should be utilized.
- (xxvi) Traffic Management Study and Mitigation measures as given in the EIA Report shall be implemented in letter and spirit. As per clause B.b. vii) page 4 of MOU dated 24th February, 2014 between Airports Authority of India (AAI) and Government of Uttar Pradesh twin carriage airport road leading to city with proposed Civil Enclave has to be provided by the State Government in association with AAI. Apart, the project

	<p>proponents will examine the current augmentation of road infrastructure and prepare and implement a traffic management plan to the satisfaction of the competent authority for decongesting the approach to the Airport. The project proponents will as per law, implement the directives of the Committee constituted by the High Court in the matter of decongesting the approach road.</p> <p>(xxvii) Energy conservation measures like installation of LED/CFLs/TFLs for the lighting the areas outside the building should be integral part of the project design and should be in place before project commissioning. Used CFLs and TFLs should be properly collected and disposed off/sent for recycling as per the prevailing guidelines/ rules of the regulatory authority to avoid mercury contamination.</p> <p>(xxviii) An onsite disaster management plan shall be drawn up to account for risks and accidents. This onsite plan shall be dovetailed with the onsite management plan for the district.</p> <p>(xxix) The company shall draw up and implement a corporate social Responsibility plan as per the Company's Act of 2013.</p> <p>(xxx) A water security plan to the satisfaction of the CGWA shall be drawn up to include augmenting water supply and sanitation facilities and recharge of ground water in at least two villages and schools, as part of the C.S.R. activities</p>
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28.4 Any other item with the permission of Chair –

28.4.1.

A presentation was made by the Chairman of the Vishakapatnam Port Trust, with permission of the Chairman, EAC (Infra-2) where the chairman of the Trust requested the committee that since the committee has already appraised the case, it should not be appropriate at this stage to withhold its appraisal and recommendation because of the Coastal Zonal Management Plan. It was also informed that this is a reconstruction project with little influence on Coastal Zone Management Plan and that even if the Committee gives its recommendations, the clearance can only be considered by the Ministry as per the final outcome on Ministry's Application against the Hon'ble NGT order dated 22nd November, 2017 in the Original Application No. 424 of 2016 (Earlier O.A. No. 169 of 2015) and Original Application No. 11 of 2014. Taking a view on the representation and the order of Hon'ble NGT, the Committee makes the following recommendations –

- (i) Proposals related to grant of EC&CRZ Clearance which have been appraised by the Committee and additional details were sought, the proposals may be considered by the EAC (Infra-2) for further appraisal/ recommendation subject to the final outcome of the orders of the Hon'ble NGT dated 22nd November, 2017. A condition should be imposed that the project should be dove tailed with the Coastal Zone Management Plan.
- (ii) Where a TOR has been issued already, the project proponents should be advised that the TOR is subject to the orders of the NGT in matter and no further consideration shall be possible unless the Coastal Zone Management Plan is in place. The project should be dove tailed with the Coastal Zone Management Plan.
- (iii) No fresh cases for TOR/EC&CRZ should be taken up unless the Coastal Zone

Management Plan has been drawn up.

28.4.2.

In compliance to the agenda item No. 28.4.1 and with the permission of Chairman, EAC (Infra-2), the following proposal was considered by the EAC (Infra-2)

Development of Multipurpose Terminal by replacement of existing EQ-2 to EQ-5 berths to cater to 14.00 M draft vessels in Inner Harbor of Visakhapatnam Port Trust on DBFOT basis by M/s Visakhapatnam Port Trust - Reconsideration for Environmental & CRZ Clearance

(F. No. 11-19/2015-IA-III; IA/AP/MIS/28607/2015)

The proposal was earlier considered by the EAC in its 19th meeting held on 27-29 June, 2017 and 27th Meeting of the EAC held on 25th January, 2018, wherein the Committee sought some additional information. The Project proponent submitted the information on 21.12.2017 and 7.02.2018

The Committee deliberated upon the information provided by the Project Proponent. The Committee after being satisfied with the submission of the Project Proponent recommended the project for grant of Environmental and CRZ clearance subject to the submission of documents/information sought and stipulated the following specific conditions along with other environmental conditions while considering for accord of environmental and CRZ clearance:

- (i) Construction activity shall be carried out strictly according to the provisions of the CRZ Notification, 2011. No construction work other than those permitted in Coastal Regulation Zone Notification shall be carried out in Coastal Regulation Zone area.
- (ii) All the recommendations and conditions specified by the Andhra Pradesh Coastal Zone Management Authority has recommended the project vide letter No. 33/AP/APCZMA/2017 dated 20.03.2.017 shall be complied with.
- (iii) The Project proponent shall ensure that no creeks or rivers are blocked due to any activities at the project site and free flow of water is maintained.
- (iv) Dredging shall not be carried out during the fish breeding season.
- (v) Dredging, etc shall be carried out in the confined manner to reduce the impacts on marine environment.
- (vi) Dredged material shall be disposed safely in the designated areas.
- (vii) Shoreline should not be disturbed due to dumping. Periodical study on shore line changes shall be conducted and mitigation carried out, if necessary. The details shall be submitted along with the six monthly monitoring report.
- (viii) While carrying out dredging, an independent monitoring shall be carried out by Government Agency/Institute to check the impact and necessary measures shall be taken on priority basis if any adverse impact is observed.
- (ix) The water requirement (1,36,100 m³/month) for the present project will be met from Greater Visakhapatnam Municipal Corporation (GVMC). The ground water if required shall only be tapped with prior permission from CGWA.

- (x) Marine ecological studies as carried out by M/s Terracon Ecotech Pvt. Ltd., NABET accredited EIA Consultant under the supervision of MECON Ltd. and its mitigation measures for protection of flora & fauna, mangroves, Olive Ridley's Turtles etc as given in the EIA-EMP Report shall be complied with in letter and spirit.
- (xi) A copy of the Marine and riparian biodiversity management plan duly validated by the State Biodiversity Board shall be submitted before commencement of implementation.
- (xii) A continuous monitoring programme covering all the seasons on various aspects of the coastal environs need to be undertaken by a competent organisation available in the State or by entrusting to the National Institutes/reowned Universities with rich experiences in marine science aspects. The monitoring should cover various physico-chemical parameters coupled with biological indices such as microbes, plankton, benthos and fishes on a periodic basis during construction and operation phase of the project. Any deviations in the parameters shall be given adequate care with suitable measures to conserve the marine environment and its resources.
- (xiii) Marine ecology shall be monitored regularly also in terms of sea weeds, sea grasses, mudflats, sand dunes, fisheries, echinoderms, shrimps, turtles, corals, coastal vegetation, mangroves and other marine biodiversity components as part of the management plan. Marine ecology shall be monitored regularly also in terms of all micro, macro and mega floral and faunal components of marine biodiversity.
- (xiv) The project proponents would also draw up and implement a management plan for the prevention of fires due to handling of coal.
- (xv) Spillage of fuel / engine oil and lubricants from the construction site are a source of organic pollution which impacts marine life, particularly benthos. This shall be prevented by suitable precautions and also by providing necessary mechanisms to trap the spillage.
- (xvi) Necessary arrangements for the treatment of the effluents and solid wastes must be made and it must be ensured that they 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.
- (xvii) All the recommendations mentioned in the rapid risk assessment report, disaster management plan and safety guidelines shall be implemented.
- (xviii) Measures should be taken to contain, control and recover the accidental spills of fuel and cargo handle.
- (xix) Necessary arrangement for general safety and occupational health of people should be done in letter and spirit.
- (xx) All the mitigation measures submitted in the EIA report shall be prepared in a matrix format and the compliance for each mitigation plan shall be submitted to the RO, MoEF&CC along with half yearly compliance report.

LIST OF PARTICIPANTS OF EAC (INFRASTRUCTURE-2) IN 28th MEETING OF EAC (INFRASTRUCTURE-2) HELD ON 5th MARCH, 2018

S. No.	Name	Designation	Attendance	Signature
1.	Prof. T. Haque	Chairman	P	
2.	Shri K. Gowarappan	Member	A	
3.	Dr. Yashpal Singh	Member	P	
4.	Dr. S.K. Bhargava	Member	P	
5.	Dr. Ayi Vaman N. Acharya	Member	A	
6.	Dr. Chandrahas Deshpande	Member	A	
7.	Shri A. P. Singh	Member	P	
8.	Ms. Mili Majumdar	Member	A	
9.	Prof. Dr. Sanjay Gupta	Member	A	
10.	Dr. M. V. Ramana Murthy	Member	A	
11.	Kushal Vashist	Director & Member Secretary	P	

Special invitee Members for Agenda item No. 28.4.6

1.	Dr. Chitra Rajagopalan	Distinguished Scientist, DRDO, Ministry of Defence	P	
2.	Shri Pushpender Gaur	Dy. Controller of Mines, Ministry of Mines,	A	
