

18th 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 PROJECT, TOWNSHIPS AND AREA DEVELOPMENT PROJECTS TO BE HELD ON 25th to 27th May, 2017.

Thursday, 25th May, 2017

18.1. Opening Remarks of the Chairman

At the outset, Chairman apprised the members of the Expert Appraisal Committee (Infra-2) about the sad demise of Shri Anil Madhav Dave, Hon'ble Minister of State (Independent Charge), Ministry of Environment, Forest and Climate Change, Government of India. The Expert Appraisal Committee placed on record the deep sense of sorrow at the sad demise of Hon'ble Minister and paid homage to the departed soul by observing two minutes silence. Thereafter, agenda items were taken up for discussion. The deliberations held and decisions taken are as under.

18.2 Confirmation of Minutes of 17th Meeting of EAC (Infra-2) held on 15th May, 2017 at New Delhi.

The EAC, having taken note that no comments were offered on the minutes of its 17th meeting held on 15th May, 2017 at New Delhi, confirmed the same.

18.3. Consideration of Proposals

18.3.01 Shivkhori Passenger Ropeway shall be developed at Shivkhori, Udhampur J&K by M/s J&K State Cable Car Corporation Ltd – Terms of Reference – [F.No.10-13/2017-IA-III] [IA/JK/MIS/62461/2017]

The project proponent made a presentation and provided the following information to the Committee:-

- (i). The proposed Shivkhori Passenger Ropeway shall be developed at Shivkhori, Udhampur J&K by M/s J&K State Cable Car Corporation in order to promote tourism & modal shift to transit and for additional mode of transport. The proposed system to be installed at Shivkhori will be Monocable Detachable Gondola system.
- (ii). The Project is a 1739-m long ropeway, covering an area of 31750 sq m (including Terminal Stations, ropeway corridor, towers etc). The proposed ropeway shall be developed from LTP at Village Ransoo (below Ransoo Kotla Road) to UTP at approx. 270 m distance from the Shivkhori Cave entrance. There will be a continuous ropeway line from LTP to UTP.
- (iii). 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 the UTP is at an elevation of 1100 m above MSL.
- (iv). The alignment falls within a Forest land for development of terminal stations & line towers. About 18402 sq m (1.8402 ha) of area of forest land will be diverted and 450 no. of trees to be cut. This activity will be carried out as per the guidelines of the Forest (Conservation) Act, 1980. The Latitude & longitude of the site are LTP- 33° 10'15.48"N, 74°35'55.04"E and UTP- 33°10'29.29"N, 74°36'59.26"E.
- (v). To meet the terrain, length and capacity requirement a Detachable Monocable Gandola system is appropriate in this Alignment. Maximum of 50 numbers of laborers

will be deployed during peak construction phase. Ropeway will have carrying capacity of 2000 persons per hour. Operation of 12 hrs of ropeway is envisaged. Population of 24000 persons/day will use the ropeway. Staff for operation & maintenance to be deployed at project will be about 27 persons.

- (vi). Proper arrangement of water supply and sewage disposal will be made at site.
- (vii). Power Load Requirement will be 350 Kw. DG sets of capacities 1 x 600 KVA at Drive station (LTP) 1 x 40 KVA at Return Station (UTP) are proposed for backup power supply. These D.G. Sets will be provided with proper stack height as per the CPCB norms & will be bought acoustically enclosed.
- (viii). Approx. 24000 visitors are expected in a day and there shall be a provision of 27 staff during the operation of the ropeway. There shall be a provision of Bio- Toilets at lower and upper terminal for the visitors & staff.
- (ix). The total water requirement for emergency & other misc. purpose has been estimated as 8.7 KLD and the source will be municipal supply. Water shall be used mainly for flushing & hand washing, drinking, Gardening & misc. purposes. The generation of total waste water will be 5.6 KLD, which shall be disposed to septic tank followed by Soak pit. The location for the water storage tank will be at LTP and UTP. For drinking water, water cooler/water Dispenser shall be provided at both Terminals.
- (x). Total 3604 Kg/day of waste will be generated due to the proposed development. The Organic Waste will be treated in 2 no. Organic Waste Converter proposed at each Terminal and converted into compost. The Recyclable Waste Collected and given to approved recycler. Plastic will be minimum used in the area.
- (xi). 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.
- (xii). Total cost of the ropeway project is 71.3 Crores.

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 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)
- iii. Stage – I forest clearance to be submitted.
- iv. Toposheet map of 10 km distance indicating eco-sensitive areas dully authenticated by the Wildlife warden.
- v. Route map of proposed ropeway project.
- vi. Layout maps of proposed project indicating location of upper station and lower station, building, food court, parking, greenbelt area, utilities etc.
- vii. Numbers of persons/projections of tourist.
- viii. Cost of project and time of completion.

- ix. 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 include air conditioning systems, indoor lighting systems, water heaters, air heaters and air circulation devices. Use
- x. Details of air emission, effluents, solid waste and hazardous waste generation and their management.
- xi. Requirement of water, power, with source of supply, status of approval, water balance diagram, man-power requirement (regular and contract)
- xii. The E.I.A. should specifically address to vehicular traffic management and parking facilities.
- xiii. Examine the ground water / water body contamination from septic tank/Soak pit.
- xiv. The impact of odors from the bio-toilets and its management.
- xv. 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.
- xvi. 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.
- xvii. At LTP, one monitoring station should be set up in North and South direction of the project. The meteorological data should be compared with IMD.
- xviii. 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.
- xix. 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.
- xx. 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.
- xxi. 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.
- xxii. 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.

18.3.02 Expansion of existing jetty & and storage terminal capacity at Gujarat Chemical Port Terminal Company Limited (GCPTCL) at GIDC, Dahej, Taluka Vagra, Dist. Bharuch, Gujarat by M/s Gujarat Chemical Port Terminal Company Limited – Terms of Reference – [F.No.10-14/2017-IA-III] [IA/GJ/MIS/62501/2017]

The project proponent made a presentation and provided the following information to the Committee:-

- (i). Gujarat Chemical Port Terminal Company Ltd. (GCPTCL) is a Joint venture company of Government of Gujarat PSU and has a commercial Port and Storage Terminal, located along the Gulf of Khambhat at Dahej, District Bharuch, Gujarat and has been operational since December, 2000.
- (ii). GCPTCL's Port and Terminal consists of a jetty (single berth) and associated storage terminal for handling and storage of gas and liquid chemical cargoes falling in 'A', 'B' & 'General' Classes, including petroleum, petrochemicals, and cryogenic products. Currently, the approved cargo handling capacity of jetty is 4.979 MMTPA and safe filling product storage capacity of terminal is 7.23 lakh KL (total product storage capacity 8.5 lakh KL). The jetty falls within the jurisdiction of the Gujarat Maritime Board's (GMB) Dahej Port limit, whereas the storage terminal is located in the GIDC notified industrial area. The existing operations of GCPTCL have required EC and consent from MoEF/SEIAA and GPCB respectively.
- (iii). Considering the development of new chemical, petrochemical and petroleum manufacturing units within the PCPIR, SEZ and DMIC areas at Dahej, there is an increasing requirement from these customers for coastal movements of additional cargoes/products. Since the existing jetty (with single berth facility) is operating at a high occupancy rate, it is proposed to expand the port by constructing a second berth and additional storage tanks for handling add on storage of various materials.
- (iv). The storage will come up within the existing GCPTCL terminal and the 39 Ha. diverted forest land. GCPTCL has obtained Stage-I Forest Clearance from MoEF&CCDC for diversion of forest vide letter dated 18.08.2015.
- (v). The power requirement after expansion is expected to go up to 7,300 KVA from 2,950 kVA and water requirement will be within the approved allotment of 1,590 m³/day by GIDC.
- (vi). GCPTCL's Port & Terminal is engineered to have a safe working environment in accordance with the local/international regulations. GCPTCL has made large investments in automation and installation of advanced safety equipment and fire protection systems, which are maintained regularly. The additional storage tanks and second berth will be designed in accordance with the applicable standards/ guidelines.
- (vii). The existing 'Oil Spill Contingency Plan' will be extended to the proposed berth. No waste will be accepted from the ships at the berth nor will the ships be allowed to discharge any waste in the jetty area. The proposed berth will be declared as "No waste disposal area". The effluent generated from the proposed project will be treated in existing ETP. GCPTCL is a 'Zero Liquid Discharge' site.

- (viii). The hazardous waste generated will be collected, stored, transported and disposed off to M/s Bharuch Environment Infrastructure Limited (BEIL) for incineration/landfill, of which it is a member.
- (ix). GCPTCL has a well-established Environmental Management System, which will be extended to cover the proposed expansion project.

The following are proposed components and detailed activity of the project:

A. Expand the existing jetty capacity from 4.979 MMTPA to 12.0 MMTPA by setting up second berth

The existing jetty with single berth facility will be expanded by setting up a second berth, thus increasing the overall capacity of the jetty from 4.979 MMTPA to 12.0 MMTPA.

B. Development of 39 Ha. diverted plot for establishment of additional storage tanks for permitted products under Annexure – II of the CRZ Notification 2011

A 39 Ha. forest land located in CRZ area (i.e. between HTL and setback line), on the landward side and contiguous to GCPTCL site, is proposed to be developed. The land will be developed by raising the level of the plot till the height of existing GCPTCL plot, by utilizing the construction dredge material. The permitted storage tanks, as per Annexure II of CRZ Notification 2011, will be established in this area.

C. Capital and annual maintenance dredging of 5.0 and 0.5 million m³ respectively at the jetty and navigational channel.

Capital and annual maintenance dredging will be carried out to maintain sufficient depth for navigation of ships in the navigational channel and in front of berth head.

D. Raise the ground level (GL) of 39 Ha. diverted plot using the dredge material and/or dispose the dredge material at GMB approved dredge disposal site.

As mentioned in Sr. No. 2 above, the capital dredge material of 5.0 million m³ will be used for raising the GL of the 39 Ha plot till the height of existing GCPTCL plot. The unutilized dredge material will be disposed at the GMB approved dredge disposal location in the Gulf of Khambhat.

E. Increasing the storage capacities of the terminal to 17.5 lakh KL by establishing additional tanks along with associated facilities/utilities.

With the increased cargo handling capacity at the jetty, it is proposed to increase the total product storage capacity to 17.5 lakh KL from the existing safe filling product storage capacity of terminal of 7.23 lac KL (total product storage capacity 8.5 lakh KL) with in 39 Ha plot area as well as within existing GCPTCL area.

F. Shore Protection Measures for prevention of erosion and;

To protect the shoreline of 39 Ha plot from erosion, shore protection measures viz. Gabion wall, sheet piling or stone pitching, will have to be built.

G. Protection from scouring of jetty.

Due to high currents in the Gulf of Khambhat, it has been observed that constant scouring occurs around the piles of existing berth, which may affect the structural stability of piles. To prevent scouring, it is proposed to implement scour protection measures at the existing and proposed berth. Some of scour prevention measures proposed are by Rock riprap, Gabion boxes, Sack Gabions etc.

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. Certified compliance report issued by the Regional Office, Bhopal for environmental conditions stipulated in the existing EC.
- ii. Importance and benefits of the project.
- iii. Submit a copy of layout superimposed on the HTL/LTL map demarcated by an authorized agency on 1:4000 scale.
- iv. Recommendation of the SCZMA.
- v. Stage – I forest clearance to be submitted.
- vi. Various Dock and shipbuilding facilities with capacities for existing and proposed project.
- vii. Study the impact of dredging on the shore line.
- viii. A detailed impact analysis of rock dredging.
- ix. Study the impact of dredging and dumping on marine ecology and draw up a management plan through the NIO or any other institute specializing in marine ecology.
- x. A detailed analysis of the physico-chemical and biotic components in the highly turbid waters round the project site (as exhibited in the Google map shown during the presentation), compare it with the physico- chemical and biotic components in the adjacent clearer (blue) waters both in terms of baseline and impact assessment and draw up a management plan.
- xi. Details of Emission, effluents, solid waste and hazardous waste generation and their management in the existing and proposed facilities.
- xii. Toxicity Factor to be carried out on treated trade effluent beside chemical analysis.
- xiii. The existing project should avail of and submit consent to operate from the State Pollution Control Board.
- xiv. Requirement of water, power, with source of supply, status of approval, water balance diagram, man-power requirement (regular and contract).
- xv. Wastewater management plan.
- xvi. Details of Environmental Monitoring Plan.
- xvii. To prepare a detailed biodiversity impact assessment report and management plan through the NIOS or any other institute of repute on marine, brackish water and fresh water ecology and biodiversity. The report shall study the impact on the rivers, estuary and the sea and include the intertidal biotopes, corals and coral communities, molluscs, sea grasses, sea weeds, subtidal habitats, fishes, other marine and aquatic micro, macro and mega flora and fauna including benthos, plankton, turtles , birds etc. as also the productivity. The data collection and impact assessment shall be as per standard survey methods.
- xviii. Disaster Management Plan for the above terminal.
- xix. Layout plan of existing and proposed Greenbelt.
- xx. The compliance to the conditions of consent issued by the State Pollution Control Board.
- xxi. The impact of the project, in its various phases, on the nearby villages specially the one shown as just 600 meters from the project site.
- xxii. A response to any complaints that have been received by the project against the setting up of the project including the representation submitted by the Conservation Action plan.
- xxiii. The impact and management of using dredged material to raise the height of the proposed land of 39 HA.

- xxiv. The details of waste water disposal into the sea, its impacts and Management plan.
- xxv. Status of court case pending against the project.
- xxvi. 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.
- xxvii. A tabular chart with index for point wise compliance of above TORs.

It was recommended that 'TORs' 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.

18.3.03 Sabarimala Ropeway Project at Sabarimala, Kerala by M/s Eighteenth Step Damodar Cable Car Pvt Ltd – Terms of Reference – [F.No.10-17/2017-IA-III] [IA/KL/MIS/63039/2017]

The project proponent made a presentation and provided the following information to the Committee:-

- (i). The proposed Sabarimala Ropeway Project shall be developed at Sabarimala, Kerala Further to the decision of High Power Committee to implement Sabarimala Ropeway Project which is also part of the Sabarimala Master Plan approved by High Court of Kerala, M/s Eighteenth Step Damodar Cable Car Pvt. Ltd. is entitled for construction and operation of the ropeway project.
- (ii). The proposed system to be installed will be Detachable Grip Monocable Ropeway System. The Project is a 2706.42-m long ropeway, covering an area of 38389.04 sq m (including Terminal Stations, ropeway corridor, towers and Parking). The proposed ropeway shall be developed from LTP at Hill top near KSEB Substation (Pamba) to UTP at Sannidhanam behind Police Barack at Mallikapauram (Sabrimala). There will be a continuous ropeway line from LTP to UTP.
- (iii). 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 it attracts the general condition. The selected alignment falls in some part of Periyar Wildlife Sanctuary. The Latitude & longitude of the site are LTP- 77° 03'58.07"E, 9°24'54.95"N, and UTP- 77° 04'45.41"E, 9° 26'12.32"N.
- (iv). To meet the terrain, length and capacity requirement a Detachable Monocable system is appropriate in this Alignment. Maximum 40 numbers labour will be deployed during peak construction phase. Ropeway will be used for material handling (carrying capacity of 50 TPH) and shifting persons in emergency situation. Staff for operation & maintenance to be deployed at project will be about 50 persons.
- (v). Proper arrangement of water supply and sewage disposal will be made at site.
- (vi). Power Load Requirement will be 95 KW. DG set of capacities 1 x 125 KVA at Drive station (LTP) is proposed for backup power supply. These D.G. Sets will be provided with proper stack height as per the CPCB norms & will be bought acoustically enclosed.
- (vii). There shall be a provision of 50 staff during the operation of the ropeway. There shall be a provision of Bio- Toilets at lower and upper terminal for the staff.
- (viii). The total water requirement for emergency & other misc. purpose has been estimated as 5 KLD and the source will be municipal supply. Water shall be used mainly for flushing &

hand washing, drinking, Gardening & misc. purposes. The generation of total waste water will be 3 KLD, which shall be disposed into Soak pit.

- (ix). Total 23 Kg/day of waste will be generated due to the proposed development. The Organic Waste will be treated in Organic Waste Converter proposed at UTP and converted into compost. The Recyclable Waste Collected and given to approved recycler. Plastic will be minimum used in the area.
- (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. 40 Crores.

During the discussion, the Committee noted that tree cutting/trimming will be required for the proposed project. The Committee deliberated upon the proposal and recommended grant of additional ToR and the standard ToR as presented by the Project Proponent who indicated that they have already started baseline data collection from the month of March (after the submission of Form 1 by the project proponent) and that they would like to carry the study up to 31st May, 2017. The Committee allowed to use data up to 31st May, 2017.

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 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)
- iii. Stage - I forest clearance to be submitted.
- iv. Permission from Forest Department for cutting of trees.
- v. Copy of application submitted for clearance from NBWL for Periyar Wildlife Sanctuary.
- vi. Toposheet map of 10 km distance indicating eco-sensitive areas duly 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 include 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. Management of Organic waste convertor may be explored at LTP.
- xiv. Complete list of materials to be handled along with safety measures and environmental impacts on handling. The EIA would include a design of material handling, passenger handling and evacuee handling cars along with a safety management plan for each.
- xv. The impact of odors from the bio-toilets and its management.
- xvi. 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.
- xvii. 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.
- xviii. Requirement of water, power, with source of supply, status of approval, water balance diagram, man-power requirement (regular and contract).
- xix. The E.I.A. should specifically address to vehicular traffic management and parking facilities. Parking facility/Plan dedicated for trucks to be incorporated.
- xx. 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.
- xxi. Safety clearances from all the concerned departments.
- xxii. 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.
- 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. 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.

18.3.04 Group housing project at Khasra No. 7, 9, 10, 11, 12 at Village Chhajarsi and Plot No GH 09, Ahinsa Khand-2, Indirapuram, Ghaziabad, U.P by M/s A.S. Proptech Pvt. Ltd – Environmental Clearance - [F.No.21-129/2017-IA-III] [IA/UP/NCP/63704/2017]

Project proponent did not attend the meeting.

18.3.05 Expansion of group housing at Khasra No. 1058m, 1726M/1, 1725M/2, 1724M, 1056M, 1058M, 1060/1 at Village Pasona Pargana, Loni, District-Ghaziabad, Uttar Pradesh by M/s Nipun Builders & Developers Pvt. Ltd. – Environmental Clearance - [F.No.21-130/2017-IA-III] [IA/UP/NCP/63775/2017]

The project proponent made a presentation and provided the following information to the Committee:-

- (i). The present proposal is for Expansion of group housing project at Khasra No. 1058m, 1726M/1, 1725M/2, 1724M, 1056M, 1058M, 1060/1, Village Pasona Pargana, Loni, District-Ghaziabad, Uttar Pradesh on a total plot area of 13635.7 sq m and total built up area is 69862.42 sqm.
- (ii). Earlier environmental clearance was granted to the project by SEIAA, Uttar Pradesh vide environmental clearance No. 1192 / Parya /427 / SEAC/ 2010 AA(S), dated 24.05.2011 for plot area 17,100 sqm, total built-up area 47,971 sqm and 430 dwelling units.
- (iii). The project was submitted in Uttar Pradesh on 26th May 2016 and was appraised in 285th SEAC U.P. meeting dated 2nd August, 2016. There were some queries which were related to NoCs. The point wise reply for the queries was submitted to the committee on 10th February, 2017. In the meantime the SEAC, UP was dissolved on 22nd Feb, 2017. Hence, the project was submitted to EAC at Central Level on 1st May, 2017 for grant of Environment Clearance.

During the discussion, the Committee noted that the name "Nipun Saffron Valley" was not mentioned in the Form-I under the head name of the project. It was also noted that this is an expansion project and the Project Proponent has not submitted Certified Compliance Report of the conditions stipulated in the earlier environmental clearance issued for the project.

After detailed deliberation, the Committee sought following additional information:

- (i) Certified compliance report issued by the MoEF&CC Regional Office, Lucknow on environmental conditions stipulated in the existing environmental clearance.
- (ii) Give a conformity status to conditions stipulated in Annexure XIV of the amended EIA Notification vide S.O. 3999 (E) dated 09.12.2016.
- (iii) Notarized affidavit of undertaking by Board of Director(s) stating, no construction activity has commenced at the site and Project Proponent undertakes that the construction works will be commenced only after obtaining all necessary clearances from statutory authorities.
- (iv) Submit an assessment of the cumulative impact of expansion and increased inhabitation being carried out or proposed to be carried out by the project for traffic densities and parking capabilities in a 5 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 also be submitted.
- (v) Compliance report of ECBC norms.

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

18.3.06 Group housing "Casa Greens Royal Palace" at GH-5 & 6, Sector-17, Vrindavan Yojna, Lucknow, Uttar Pradesh by M/s Radhye Krishna Techno Build Pvt. Ltd. – Environmental Clearance - [F.No.21-131/2017-IA-III] [IA/UP/NCP/63785/2017]

The project proponent made a presentation and provided the following information to the Committee:-

- (i). The proposal is for development of a group housing “Casa Greens Royal Palace” at GH- 5 & 6, Sector-17, Vrindavan Yojna, Lucknow, Uttar Pradesh on a total plot area of 17916.72 sqm and total built up area is 96502.38 sqm.
- (ii). Proposed project include construction of multi-storeyed residential with community facilities. Adequate parking 1092 ECS is proposed on surface & basements for visitors as well as residents. Community facilities include club house, parks, and gardens. A total of 2178.5 sqm is to be developed as landscape area.
- (iii). The project envisages construction of 9(8+1) towers including 8 residential towers + 1 community hall/ Commercial of 2B+G+20 floors.
- (iv). Total population of the proposed project will be 4693 which include the population of residents, community and visitors.
- (v). The total water requirement for the project has been estimated to be 365 KLD. This includes domestic water requirement, flushing, D.G. cooling and landscaping. The total fresh water requirement is 261 KLD which includes domestic water requirement. The water requirement for flushing, DG Cooling and landscaping will be met through treated water from STP.
- (vi). Total waste water generated is 301 KLD, which will be treated in onsite STP (capacity) 360 KLD based on MBBR Technology. The treated water will be recycled and re-used for flushing, D.G. cooling and landscaping.
- (vii). The total electrical load demand has been estimated to be 2239 KVA for the proposed project. The source of power will be from Uttar Pradesh Power Corporation Ltd.
- (viii). In case of power failure, DG sets of total capacity of 2000 KVA (2x750 + 1X500) for the proposed project will be provided as power back-up.
- (ix). The domestic solid waste will be generated by the occupants of the residents, visitors and people coming to community area will pertain to the two categories, Bio-degradable (1.24 TPD) and Non-biodegradable (0.84 TPD). It is estimated that maximum solid waste generation would be about 2.08 TPD for the proposed project and 241.6 kg of sludge will be generated from the proposed project. The segregated bio-degradable waste will be composted in Organic Waste Converter and will be used as manure for field application.
- (x). Rainwater of buildings will be collected and 3 No. of RWH pits shall be provided for storm water recharging to ground.
- (xi). The project involves labour camp for 75 labours during construction.
- (xii). The cost of the project is Rs. 145 Crores.
- (xiii). The Benefit of the Project is that during operational phase of Group Housing, persons will get employment opportunities as staff for management, maintenance and security. As an estimate, during operation phase, persons will get marginal employment opportunities from the residents of Group Housing who would work as domestic helpers. This will help in improving the quality of life of economically weaker sections of the local area.

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

PART A – SPECIFIC CONDITIONS:

I. Construction Phase

- (i) 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.
- (ii) The natural drain system should be maintained for ensuring unrestricted flow of water. No construction shall be allowed to obstruct the natural drainage through the site, on wetland and water bodies. Check dams, bio-swales, landscape, and other sustainable urban drainage systems (SUDS) are allowed for maintaining the drainage pattern and to harvest rain water. Buildings shall be designed to follow the natural topography as much as possible. Minimum cutting and filling should be done.
- (iii) Construction site shall be adequately barricaded before the construction begins. Dust, smoke & other air pollution prevention measures shall be provided for the building as well as the site. These measures shall include screens for the building under construction, continuous dust/ wind breaking walls all around the site (at least 3 meter height). Plastic/tarpaulin sheet covers shall be provided for vehicles bringing in sand, cement, murrum and other construction materials prone to causing dust pollution at the site as well as taking out debris from the site. Sand, murrum, loose soil, cement, stored on site shall be covered adequately so as to prevent dust pollution. Wet jet shall be provided for grinding and stone cutting. Unpaved surfaces and loose soil shall be adequately sprinkled with water to suppress dust.
- (iv) All construction and demolition debris shall be stored at the site (and not dumped on the roads or open spaces outside) before they are properly disposed. All demolition and construction waste shall be managed as per the provisions of the Construction and Demolition Waste Rules, 2016. All workers working at the construction site and involved in loading, unloading, carriage of construction material and construction debris or working in any area with dust pollution shall be provided with dust mask.
- (v) At least 20% of the open spaces as required by the local building bye-laws shall be pervious. Use of Grass pavers, paver blocks with at least 50% opening, landscape etc. would be considered as pervious surface.
- (vi) Compliance with the Energy Conservation Building Code (ECBC) of Bureau of Energy Efficiency shall be ensured. Buildings in the States which have notified their own ECBC, shall comply with the State ECBC. Outdoor and common area lighting shall be LED. Concept of passive solar design that minimize energy consumption in buildings by using design elements, such as building orientation, landscaping, efficient building envelope, appropriate fenestration, increased day lighting design and thermal mass etc. shall be incorporated in the building design. Wall, window, and roof u-values shall be as per ECBC specifications.
- (vii) Use of water saving devices/ fixtures (viz. low flow flushing systems; use of low flow faucets tap aerators etc) for water conservation shall be incorporated in the building plan.
- (viii) Installation of dual pipe plumbing for supplying fresh water for drinking, cooking and bathing etc and other for supply of recycled water for flushing, landscape irrigation, car washing, thermal cooling, conditioning etc. shall be done.
- (ix) Separation of grey and black water should be done by the use of dual plumbing system. In case of single stack system separate recirculation lines for flushing by giving dual plumbing system be done.

- (x) Sewage shall be treated in the STP based on Moving Bed Biofilm Reactor (MBBR) Technology. The treated effluent from STP shall be recycled/re-used for flushing, horticulture & DG cooling.
- (xi) 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. As proposed, Rooftop rainwater of buildings shall be collected in 3 RWH tanks of total 64.09 KL capacity for harvesting after filtration as per CGWB guidelines.
- (xii) 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. As proposed, 150 m² of 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.
- (xiii) Solar based electric power shall be provided to each unit for at least two bulbs/light and one fan. As proposed, central lighting and street lighting shall also be based on solar power.
- (xiv) Motion sensor based lights to be provided in parking areas, corridors, passages, aisles, stairways.
- (xv) A First Aid Room shall be provided in the project both during construction and operations of the project.
- (xvi) Topsoil should be stripped to a depth of 20 cm from the areas proposed for buildings, roads, paved areas, and external services. It should be stockpiled appropriately in designated areas and reapplied during plantation of the proposed vegetation on site.
- (xvii) Disposal of muck during construction phase shall not create any adverse effect on the neighboring communities and be disposed taking the necessary precautions for general safety and health aspects of people, only in approved sites with the approval of competent authority.
- (xviii) The diesel generator sets to be used during construction phase shall be low sulphur diesel type and shall conform to Environmental (Protection) prescribed for air and noise emission standards.
- (xix) Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.
- (xx) As proposed, no ground water shall be used during construction/ operation phase of the project.
- (xxi) Approval of the CGWA require before any dewatering for basements.
- (xxii) 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.
- (xxiii) Any hazardous waste generated during construction phase, shall be disposed off as per applicable rules and norms with necessary approvals of the State Pollution Control Board.
- (xxiv) Vehicles hired for bringing construction material to the site should be in good condition and should have a pollution check certificate and should conform to applicable air and noise emission standards be operated only during non-peak hours.
- (xxv) Ambient noise levels shall conform to residential standards both during day and night as per Noise Pollution (Control and Regulation) Rules, 2000. Incremental pollution loads on the ambient air and noise quality shall be closely monitored during construction phase.

Adequate measures shall be made to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by CPCB / SPCB.

- (xxvi) Use of environment friendly materials in bricks, blocks and other construction materials, shall be required for at least 20% of the construction material quantity. These include Fly Ash bricks, hollow bricks, AACs, Fly Ash Lime Gypsum blocks, Compressed earth blocks, and other environment friendly materials. Fly ash should be used as building material in the construction as per the provision of Fly Ash Notification of September, 1999 and amended as on 27th August, 2003 and 25th January, 2016. Ready mixed concrete must be used in building construction.
- (xxvii) A comprehensive mobility plan, as per MoUD best practices guidelines (URDPFI), shall be prepared to include motorized, non-motorized, public, and private networks. Road should be designed with due consideration for environment, and safety of users. The road system can be designed with these basic criteria.
- Hierarchy of roads with proper segregation of vehicular and pedestrian traffic.
 - Traffic calming measures
 - Proper design of entry and exit points.
 - Parking norms as per local regulation

II. Operational Phase

- (i) The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution. Low sulphur diesel shall be used. The location of the DG set and exhaust pipe height shall be as per the provisions of the Central Pollution Control Board (CPCB) norms.
- (ii) For indoor air quality the ventilation provisions as per National Building Code of India.
- (iii) Fresh water requirement from Municipal Water Supply shall not exceed 261 m³/day.
- (iv) The quantity of fresh water usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance as projected by the project proponent. The record shall be submitted to the Regional Office, MoEF&CC along with six monthly Monitoring reports.
- (v) The installation of the Sewage Treatment Plant (STP) shall be certified by an independent expert and a report in this regard shall be submitted to the Ministry before the project is commissioned for operation. Periodical monitoring of water quality of treated sewage shall be conducted. Necessary measures should be made to mitigate the odour problem from STP.
- (vi) No sewage or untreated effluent water would be discharged through storm water drains.
- (vii) Out of the total waste water generated, treatment facilities will be provided for only that part of the effluent which can be recycled and reused after treatment. The project proponents would also explore the possibilities of using treated effluents for road side plantations in consultation with the Forest Department/Local authorities. The effluents which cannot be reused or recycled can be sent raw and untreated to the Vrindavan Yojana, STP for treatment for which a permission shall be duly sought and the quality of effluents be maintained as per the terms of the agreement.
- (viii) Sludge from the onsite sewage treatment, including septic tanks, shall be collected, conveyed and disposed as per the Ministry of Urban Development, Central Public Health and Environmental Engineering Organization (CPHEEO) Manual on Sewerage and Sewage Treatment Systems, 2013.
- (ix) The provisions of the Solid Waste (Management) Rules, 2016, e-Waste (Management) Rules, 2016, and the Plastics Waste (Management) Rules, 2016 shall be followed.

- (x) Solar power shall be used for lighting in the apartment to reduce the power load on grid. Separate electric meter shall be installed for solar power. Solar water heaters shall be used to meet hot water demand, as far as possible.
- (xi) Energy conservation measures like installation of CFLs/ LED for the lighting the area outside the building should be integral part of the project design and should be in place before project commissioning. Used CFLs, TFL and LED shall be properly collected and disposed off/sent for recycling as per the prevailing guidelines/rules of the regulatory authority to avoid mercury contamination.
- (xii) A minimum of 1 tree for every 80 sq.mt. 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. Area earmarked for green belt is 2178.5 m².
- (xiii) An environmental management plan (EMP) shall be prepared and implemented to ensure compliance with the environmental conditions specified above. 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, 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.

18.3.07 Expansion of Group housing Project “CASA GREEN 1” at Plot No: GH-04 A, Sector-16, Greater Noida, Gautam Budh Nagar, Uttar Pradesh by M/s Radhye Krishna Techno Build Pvt. Ltd – Environmental Clearance - [F.No.21-132/2017-IA-III] [IA/UP/NCP/63844/2017]

The project proponent made a presentation and provided the following information to the Committee:-

- (i). The proposal is for Expansion of group housing project “Casa Greens-1” at GH- 04A, Sector-16, Greater Noida, Gautambudh Nagar, Uttar Pradesh on a total plot area of 18445.17 sqm and total built up area is 101837 sqm.
- (ii). Earlier environmental clearance was granted to the project by SEIAA, Uttar Pradesh vide environmental clearance No. 1755/Parya/SEAC/1575/2013/DD(D) dated 11.10.2013 for plot area 18445.17 sqm, total built-up area 87315.15 sqm and 747 dwelling units.
- (iii). Proposed include construction of multistoried residential with community facilities. Adequate parking 825 ECS is proposed on surface & basements for visitors as well as residents. Community facilities include club house, parks, and gardens. A total of 7171.94 sqm is to be developed as landscape area.
- (iv). The project envisages construction of 10(9+1) towers including 9 residential towers + 1 community hall/ Commercial of 2B+G+25 floors.
- (v). Total population of the proposed project will be 4345 which include the population of residents, community and visitors.
- (vi). The total water requirement for the project has been estimated to be 364 KLD. This includes domestic water requirement, flushing, D.G. cooling and landscaping. The total fresh water requirement is 254 KLD which includes domestic water requirement. The water requirement for flushing, DG Cooling and landscaping will be met through treated water from STP.

- (vii). Total waste water generated is 287 KLD, which will be treated in onsite STP. The treated water will be recycled and re-used for flushing, D.G. cooling and landscaping.
- (viii). The total electrical load demand has been estimated to be 2700 KW for the proposed project. The source of power will be from Uttar Pradesh Power Corporation Ltd.
- (ix). In case of power failure, DG sets of total capacity of 3510 KVA (1x1010 + 2X1250) for the proposed project will be provided as power back-up.
- (x). The domestic solid waste will be generated by the occupants of the residents, visitors and people coming to community area will pertain to the two categories, Bio-degradable and Non-biodegradable. It is estimated that maximum solid waste generation would be about 1.97 TPD for the proposed project and 103.2 kg of sludge will be generated from the proposed project.
- (xi). The project was submitted in Uttar Pradesh and was appraised in 270th SEAC U.P. meeting dated 14th May, 2016. There were some queries which were related to construction layout of the project. The point wise reply for the queries was submitted to the committee on 14th February, 2017. In the meantime the SEAC UP was dissolved on 22nd Feb, 2017. Hence, the project was submitted to EAC at Central Level on 10th April, 2017 for grant of Environment Clearance.

During the deliberation, the Committee noted that this is an expansion project and the Project Proponent has not submitted Certified Compliance Report of the conditions stipulated in the earlier environmental clearance issued for the project.

After detailed deliberation, the Committee sought following additional information:

- (i) Certified compliance report issued by the MoEF&CC Regional Office, Lucknow on environmental conditions stipulated in the existing environmental clearance.
- (ii) Give a conformity status to conditions stipulated in Annexure XIV of the amended EIA Notification vide S.O. 3999 (E) dated 09.12.2016.
- (iii) Notarized affidavit of undertaking by Board of Director(s) stating, no construction activity has commenced at the site and Project Proponent undertakes that the construction works will be commenced only after obtaining all necessary clearances from statutory authorities.
- (iv) Submit an assessment of the cumulative impact of expansion and increased inhabitation being carried out or proposed to be carried out by the project for traffic densities and parking capabilities in a 5 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 also be submitted.
- (v) Compliance report of ECBC norms.

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

18.3.08 Proposed Common Hazardous Waste Treatment, Storage and Disposal Facility (CHWTSDF) in Goa by M/s SMS Envocare Limited – Further consideration for Environmental Clearance– [F.No.10-17/2016-IA-III] [IA/GA/MIS/49446/2016]

The project proponent made a presentation and provided the following information to the Committee:-

- (i). The project involves Common Hazardous Waste Treatment, Storage and Disposal Facility (CHWTSDF) at Plot No.5, Pissurlem Industrial estate Phase I, District NorthGoa, Goa by M/s SMS Envocare Limited.
- (ii). The hazardous waste generated by industries has to be collected, transported, treated and disposed in a properly designed CHWTSDF Facility. CPCB has laid down guidelines for collection, storage, transportation and disposal of hazardous wastes. The scientific disposal of landfillable hazardous waste can be done at a secured landfill, which requires proper design and operation according to existing guidelines.
- (iii). The proposal is to establish setting up facility for secured landfill and incineration of Hazardous waste.
- (iv). Proposed plant capacity is Direct Landfill: 25,000 TPA and Incineration: 1.5 Ton/ Hr.
- (v). The total plot area is 77,574 sq m
- (vi). Green belt area: Green belt area will be provided as per norms. (2-tiered green belt of 10 m width all around plot).
- (vii). Total water requirement will be 205 CMD which will be sourced from Goa Industrial Development Corporation Goa-IDC.
- (viii). Waste water generation will be 85 CMD. ETP treatment: Screening > O & G Trap > Equalization tank > 1^o settling tank > Aeration tank > 2^o settling tank > Clarifier > PSF & ACF filter > MEE unit > Final treated water tank > Recycle within plant. Effluent will be fully recycled within plant.
- (ix). Power requirement: 250 KVA from Goa State Electricity Board.
- (x). DG set: 320 KVA DG set for emergency use
- (xi). ESZ: The Madei Wildlife sanctuary is 1.2 km to North-East (Distance from sanctuary boundary) and the Bondla Wildlife sanctuary is 6.5 km to South-West (Distance from sanctuary boundary).
- (xii). Estimated cost of the project is Rs. 98 Crores
- (xiii). Employment generation: Construction phase: ~ 65 workmen and Operation phase: 27 workmen.
- (xiv). Benefits of the project: Presently in absence of CHWTSDF in Goa Industries have to send their incinerable waste to CHWTSDF, Taloja at Maharashtra which this creates a risk to populace during transportation of Hazardous waste & landfillable waste is stored within their premises due to unscientific storage facilities.
- (xv). ToR Details: TOR granted vide letter No. 10-17/2016-IA. III dated 4th May 2016.
- (xvi). Public Hearing: Public hearing was exempted as per para 7(i) III Stage (3)(i)(b) of EIA Notification, 2006 for reparation of EIA/EMP Report, being site is located in the Notified industrial area.

The proposal was earlier considered by the EAC in its 15th meeting held on 12th -14th April, 2017, wherein the Committee sought some additional information. The project proponent has submitted the additional information vide letter dated 04.05.2017. Copy of the additional information is also available on the website. The Project Proponent made a presentation on the observations made during the last meeting.

The EAC, on being satisfied with the submissions of the project proponent in response to its earlier observations, 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, air pollution control device viz. gas quencher; treatment with mixture of hydrated lime and activated powder for adsorption of partial acidity and VOCs (if any); bagfilter/ESP for removal of particulate matter; ventury scrubber followed by packed bed scrubber with caustic circulation to neutralize the acidic vapours in flue gas; and demister column for arresting water carry over will be provided to the incinerator. Online pollutant monitoring shall be provided as per CPCB guidelines for monitoring particulate matter, SO₂, NO_x and CO from the incinerator stack. The periodical monitoring of Dioxins and Furans in the Stack emissions shall be carried out.
- (ii) The project proponents shall adhere to all conditions as prescribed in the Protocol for 'Performance Evaluation and Monitoring of the Common Hazardous waste treatment, storage and disposal facilities' published by the CPCB in May, 2010.
- (iii) Incinerator shall be designed as per CPCB guidelines. Energy shall be recovered from incinerator.
- (iv) Sufficient number of Piezometer wells shall be installed in and around the project site to monitor the ground water quality in consultation with the State Pollution Control Board / CPCB. Trend analysis of ground water quality shall be carried out each season and information shall be submitted to the SPCB and the Regional Office of MoEF&CC.
- (v) Ambient air quality monitoring shall be carried out in and around the landfill site at up wind and downwind locations.
- (vi) The depth of the land fill site shall be decided based on the ground water table at the site.
- (vii) Environmental Monitoring Programme shall be implemented as per EIA report and guidelines prescribed by CPCB for hazardous waste facilities. Periodical ground water/soil monitoring to check the contamination in and around the site shall be carried out.
- (viii) The Company shall ensure proper handling of all spillages by introducing spill control procedures for various chemicals.
- (ix) All leachates arising from premises should be collected and treated in the ETP followed by RO. RO rejects shall be evaporated in MEE. Toxicity Characteristic Leaching Procedure (TCLP) test to be performed on leachates.
- (x) The Company shall review the unit operations provided for the treatment of effluents, specially the sequencing of MEE after tertiary treatment, the source of permeate when no R.O. is recommended and the treatment of MEE condensate. The scheme for treatment of effluents shall be as permitted by the Pollution Control Board/Committee under the provisions of consent to establish.
- (xi) On line real time continuous monitoring facilities shall be provided as per the CPCB or State Board Directions.
- (xii) Scrubber water, leachate water or wheel wash effluent shall be treated in the effluent treatment plant followed by RO to achieve zero liquid discharge.
- (xiii) No non hazardous wastes, as defined under the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016, shall be handled in the premises.
- (xiv) Gas generated in the Land fill should be properly collected, monitored and flared.
- (xv) Project Proponent shall develop green belt, as committed. At least 10 m thick greenbelt shall be developed in the periphery of hazardous waste facility.
- (xvi) Project should ensure that the site is properly cordoned off from general movement and no unauthorized person or goods permitted to enter the premises. Necessary security provision should be made as a condition in the Authorisation under the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 to prevent unwanted access.

- (xvii) Pre medical check-up to be carried out on workers at the time of employment and regular medical record to be maintained.
- (xviii) Emergency plan shall be drawn in consultation with SPCB/CPCB and implemented in order to minimize the hazards to human health or environment from fires, explosion or any unplanned sudden or non sudden release of hazardous waste or hazardous waste constituents to air, soil or surface water.
- (xix) Rain water runoff from the landfill area and other hazardous waste management area shall be collected and treated in the effluent treatment plant.

18.3.09 Development of Bulk Liquid Berth for Handling LNG at Karaikal by M/s Karaikal Port Pvt. Ltd – Further consideration for Environmental and CRZ Clearance – [F.No.11-41/2013-IA.III] [IA/PY/MIS/19327/2013]

The proposal was earlier considered by the EAC in its 12th meeting held on 26th -28th December, 2016, wherein the Committee sought some additional information. The Project Proponent vide letter dated 6.2.2017 has submitted additional Information. Accordingly the project was again considered in the 15th meeting of Expert Appraisal Committee (Infra-2) held on 12th -14th April, 2017. In the meeting, the Committee deliberated upon the issues raised during the last meeting. The Committee found additional information inadequate. After detailed deliberations, Committee sought following additional information:

- (a) Copy of certified compliance report (latest) issued by the Regional Office, Chennai/Bangalore on the environmental condition stipulated in the earlier EC issued by MoEF&CC.
- (b) The project proponents were advised to prepare a detailed biodiversity impact assessment report and management plan through the NIOS or any other institute of repute on marine, brackish water and fresh water ecology and biodiversity. The report shall study the impact on the rivers, estuary and the sea and include the intertidal biotopes, corals and coral communities, molluscs, sea grasses, sea weeds, subtidal habitats, fishes, other marine and aquatic micro, macro and mega flora and fauna including benthos, plankton, turtles , birds etc. as also the productivity. The data collection and impact assessment shall be as per standard survey methods.
- (c) Notarized affidavit of undertaking stating, no construction activity has commenced at the site and Project Proponent undertakes that the construction works will be commenced only after obtaining all necessary clearances from statutory authorities.

Now the project Proponent has submitted the additional information vide letter dated 14.05.2017. Copy of additional Information is available on the website. The project proponent made a presentation and informed the following:

- (i) The project authorities and their consultant (Indomer Coastal Hydraulics (P) Ltd.) gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per Draft Terms of Reference (ToR) awarded during the 127th Meeting of the Expert Appraisal Committee (Infrastructure) held during 29th October 2013 for preparation of EIA-EMP report. All the projects related to Ports and Harbour i.e. ≥ 5 million TPA of cargo handling capacity (excluding fishing harbours) are listed at 7 (e) of schedule of EIA Notification, 2006 covered under category 'A' and appraised at central level.
- (ii) M/s Karaikal Port Private Ltd. has proposed for development of Bulk Liquid Berth for handling LNG at Karaikal Port, Puducherry. At present the port is capable of handling 21.5 MTPA of various cargoes like Coal, General Cargoes, Containers, Crude oil, Edible oil, Project cargoes etc. The details of the existing facilities are as given below:

- (a) Two breakwaters one on the north side and another on the south side.
 - (b) Five operational berths (2 cape size and 2 Panamax size berths and 1 OSV).
 - (c) Approach channel with a dredged depth of (-) 16.5 m CD and Berths with a dredged depth of (-) 15.5 m CD.
 - (d) Open cargo storage area of about 6,50,000 m².
 - (e) Covered area for cargo storage about 63,000 m² (Warehouses).
 - (f) Three numbers of dedicated railways siding within port premises and connected to main railway line between Nagore and Karaikal.
 - (g) Internal roads and Road connectivity to NH 45A & NH 67.
 - (h) Adequate tugs, mooring boats and navigational aids.
 - (i) Adequate Fire fighting capabilities.
 - (j) Adequate Pollution Control & Monitoring systems
 - (k) Proposed Bulk liquid berth for handling LNG.
- (iii) The present proposal involves the development of Bulk Liquid Berth for handling LNG through Floating Storage Regasification Unit (FSRU)/Floating storage unit (FSU) with LNG vessel berthed alongside and connected to the shore by means of an approach jetty.
- (iv) Cost of project is **Rs. 2610 Crore**.
- (v) The design capacity of the proposed LNG terminal will be up to 5 MMTPA (Million Tonne per Annum) with appropriate operational flexibility up to maximum 6 MMTPA. The LNG project will consist of the combination or only of FSUs/ FSRUs/ Onshore terminal, storage tanks, key facilities and other utilities. The R-LNG pipeline from the port will be connected to the GAIL pipeline network which is around 4 km distance from the port main gate. For the development of LNG Terminal at Karaikal Port, the site was selected at the southern side of the port, after studying the technical feasibility and considering the safety aspects. The main components of the proposed LNG Facility are: a trestle jetty (the LNG jetty), initially use of existing berth, mooring dolphins and breasting dolphins for the FSU/FSRU and for LNG carriers, FSU/ FSRU – permanently moored to the jetty; onshore LNG Storage Tanks, Regas unit, LNG carriers supplying LNG to the FSU/ FSRU, LNG transfer systems to and from LNGCs and LNG storage tanks; ship-to-ship transfer of LNG, Gas Metering Station, R-LNG pipeline – running from the FSU/ FSRU/ Onshore storage to the Gas Metering Station and then to GAIL pipeline, Road Truck loading stations, small LNG tanker loading, Access roads; In-tank LNG pumps; Cryogenic compressors; cryogenic blowers; Boil-off gas (BOG) compressors; Fuel gas system which includes LNG pumps and vaporizers; Nitrogen re-liquefaction system for LNG BOG; Seawater pipes and pumps cooling water pumps; Fire suppression system; gas turbine power plant; Various plant support auxiliary systems, including wastewater handling system; and various safety systems, including fire, gas and low temperature detection sensors.
- (vi) It is proposed to maintain a depth of (-) 19.0 m CD alongside of the berth. LNG upto 5 MMTPA can be handled at this berth facility. Provision of Buffer LNG storage tanks within the port also comes under the proposed project. The LNG line from the port will be directly connected to the GAIL network which is within 4 km proximity of the port. For the development of LNG Terminal at Karaikal Port, the site was selected at the southern side of the port, after considering three locations within the port, i.e. Southern side of the port, Northern side of the port and Outer harbour. A terminal option analysis. Following facilities will be developed:
- (vii) **Breakwaters:** There are two breakwaters, one on the northern side and the other on the southern side. The proposed Liquid berth for handling will be setup along the south breakwater.

- (viii) **Berths:** A Bulk Liquid Berth will be developed for handling LNG through FSRU/FSU with LNG vessel berthed alongside and connected to the shore by means of an approach jetty. Turning circle: The diameter of the turning circle from the present 500 m and the depth of (-) 15.5 m CD will be increased to 600 m and (-) 19.0 m CD for the development of bulk liquid berth.
- (ix) **Approach channel:** For the proposed LNG terminal requirement the length of the approach channel will be 11000 m, the inner and outer channel will be dredged to a depth of (-) 19.0 m CD and (-) 19.8 m CD respectively. The width of the approach channel will be 260 m.
- (x) Power generation for the FSU includes three 22-MW gas turbines with SCR for the control of NOx emissions and waste heat recovery units (WHRUs); this system will come as part of the FSU.
- (xi) It is reported that the water is well oxygenated, nutrient rich and biologically productive at primary and secondary levels. The sub-tidal benthic fauna is moderately rich in diversity and numbers compare to the Inter tidal benthic fauna. The marine flora and fauna also indicate the existence of diverse population. The area is rich in both pelagic and demersal fisheries. The presence of mangroves at open beach is absent and they are sparsely present inside the river mouth. The study on various oceanographic parameters and the information on adjacent region indicate that the coastal water relatively clean and moderately productive.
- (xii) The flare stack will comprise five flares and one spare flare. The stack will be a steel structure and stand up to a maximum 100 m height. The average rate of seawater intake into and discharge from this system based on annual water usage would be approximately 14,900 m³/day; the majority of the seawater would be used in the ballast system. To fulfil the present water requirement of about 100 KLD is being sourced from the existing RO plant while the development has permission for Desalination plant of capacity 300 KLD; the capacity will be enhanced over a period in stages to 2 MLD. New STP of 50 KLD will be provided to treat the additional sewage. Waste will be generated during operation phase due to additional ships coming into harbour (100 kg/d). The Channel will be deepen to (-) 19.8 m and the amount of dredge generated will be about 14 x 10⁶ m³ of which 13.0 x 10⁶ m³ will be dumped at approved dumping site, while the balance 1.0 x 10⁶ m³ will be used for reclamation/beach nourishment. The berth area would be dredged up to (-) 15.5 m. The dredging quantity is estimated as 14 x 10⁶ m³. Out of which, 1.0 x 10⁶ m³ is proposed for the backup area and the rest will be disposed off in the MoEF&CC designated disposal point in the deep sea. The dumping sites approved by MoEF&CC vide letter No.10-2/2006-IA-III dated 15.10.2008 are Lat. 10°52.8' N Long. 80° 0.5' E, Lat. 10°50.4' N Long. 80° 0.5' E and Lat. 10°48.0' N Long. 80°0.5' E. and shall be used as per the conditions specified in the letter.
- (xiii) The total volume of return cooling water that would be discharged into the sea is 6500 m³/hour with 8° C and it will be mixed with 6500 m³ /hour of seawater with ambient temperature. The resultant water will have a temperature of 18 °C. The outfall diffuser will have the multi ports of 300 nos. x 150 mm diameter placed along the south breakwater for a distance of 450 m. All the ports will be oriented 45° to the horizontal.
- (xiv) **SCZMA Recommendations:** Puducherry Coastal Zone Management Authority vide letter no. 448/DSTE/PCZMA/NOC/SCI/2016/519 dated 3.10.2016 has recommended the proposal for MoEF&CC for consideration of CRZ clearance. It is also reported that as per CRZ map duly demarcation of HTL CRZ Boundary etc. prepare by the Institute of Remote Sensing, Anna University, the proposed activities falls within CRZ – III and CRZ IV Categories.
- (xv) ToR Details: ToR was granted vide letter No. F. No.11-41/2013-IA.III dated 14.11.2013.

- (i) Public Hearing: Public hearing was conducted on 26.10.2016 at the Multi-purpose Hall, Polagam, T.R. Pattinam, Karaikal chaired by the District Collector.

The EAC, on being satisfied with the submissions of the project proponent in response to its earlier observations, 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 clearance:

- (i) Construction activity shall be carried out strictly according to the provisions of 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 Puducherry Coastal Zone Management Authority vide letter no. 448/DSTE/PCZMA/NOC/SCI/2016/519 dated 3.10.2016 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.
- (vi) The ground water shall not be tapped within the CRZ areas by the PP to meet with the water requirement in any case.
- (vii) 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.
- (viii) A detailed marine biodiversity management plan, to the satisfaction of the State Biodiversity Board and the CRZ authority, shall be prepared through the NIOS or any other institute of repute on marine, brackish water and fresh water ecology and biodiversity and implemented. The report shall be based on a study of the impact of the project activities on the intertidal biotopes, corals and coral communities, molluscs, sea grasses, sea weeds, subtidal habitats, fishes, other marine and aquatic micro, macro and mega flora and fauna including benthos, plankton, turtles, birds etc. as also the productivity. The data collection and impact assessment shall be as per standards survey methods.
- (ix) 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.
- (x) The project proponents will draw up and implement a plan for the management of temperature differences between intake waters and discharge waters.
- (xi) The queries and comments raised by the participants during the Public Hearing to the project on 26.10.2016 and as submitted before the committee will be suitably documented in the form of a management plan drawn up to address to the expressed concerns related to compensation against accidents, coal dust management, plantation, pollution of ground water, coal dust deposition in the sea, installation of automatic coal handling systems, risks, hazards and disaster management, shore erosion, damage to boats due to oil pipelines, pollution in the river Vetter etc.

- (xii) The commitments made during the Public Hearing and recorded in the Minutes shall be complied with letter and spirit. A hard copy of the action taken shall be submitted to the Ministry.
- (xiii) The project proponents would also inventories the floral composition of the biota of marine and intertidal biotopes and draw up a detailed marine bio diversity conservation management plan based on possible impacts. The management plan shall be submitted also to the State Biodiversity Board and implemented to their satisfaction during the project cycle.
- (xiv) 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.
- (xv) 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.
- (xvi) All the recommendations mentioned in the rapid risk assessment report, disaster management plan and safety guidelines shall be implemented.
- (xvii) Measures should be taken to contain, control and recover the accidental spills of fuel and cargo handle.
- (xviii) 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.

18.3.10 Development of LNG storage and regasification terminal at village Chhara Taluka Kodinar, District Gir Somnath, Gujarat by M/s HPCL Shapoorji Energy Ltd – Further consideration for Environmental and CRZ Clearance – [F.No.11-1/2014-IA.III] [IA/GJ/MIS/61501/2014]

The project proponent made a presentation and provided the following information to the Committee:-

- (i). The Environment and CRZ Clearance for the construction of Chhara port was granted on 6th January 2014. The proposed project is for the setting up a 5 MMTPA LNG Terminal at Chhara port. As observed from the Google Earth images the east side of the project site shows the presence of coastal sand dunes. As you are aware, sand dunes are protected by the CRZ Notification, 2011. The construction of breakwater will cause erosion of the sand dunes. The project proponent has not mentioned the presence of the dunes in any of the documents uploaded on MoEF&CC website.
- (ii). The proposed port will handle coal, oil, petroleum, lubricants, and LNG. Spillage of any materials will impact the marine biodiversity of the area, thereby impacting the livelihoods of the fisherfolk communities.
- (iii). The project is for development of LNG storage and regasification terminal at village Chhara Taluka Kodinar, District Gir Somnath, Gujarat by M/s HPCL Shapoorji Energy Ltd.
- (iv). On-shore LNG storage and re-gasification facilities for 5 MMTPA capacity (expandable to 10 MMTPA) are planned.
- (v). Land requirement for the LNG Terminal will be 47 ha. No land procurement is required for LNG terminal as it will be located within boundary of the port at Chhara by M/s Simar Port Private Limited.

- (vi). Facilities planned in CRZ area include 1 no. LNG Jetty with 3 Nos unloading arms, approach trestle of length 1225 m with pipelines, 6 mooring and 4 berthing dolphins, LNG transfer lines from jetty to storage tanks, vapor return line from tankages to jetty, utilities for firewater, 2 nos Storage Tanks of 200,000 cum each (gross capacity), re-gasification facilities comprising of BOG Compressor, HP Pumps, Shell and Tube Vaporizers, Submerged Combustion Vaporizer and air heaters, Glycol water tanks and circulation system, Re-condenser, U/G LNG Drain drum, LNG Send out facilities comprising truck loading, LNG Metering station, Weigh bridge, TLG Control room, Truck parking, Security Watch Tower and Security Gate
- (vii). Facilities planned in on-shore area are BOG Compressors, HP Pumps, Submerged Tube Vaporizers, Submerged Combustion Vaporizer, Air Heaters, LP Flare, Truck Loading Facility, Captive Power Plant (18 MW), Fire Water Pump House, Nitrogen Generation Facility, Fire Water Reservoir, Re-condenser Unit, Diesel Tank, and Overhead DW Tank & DW Pump
- (viii). **TOR details:** Terms of Reference was granted by MoEFCC vide letter No.11-1/2014-IA.III dated 13th Jun 2014.
- (ix). **Cost of the project** is Rs. 5408.82 crores
- (x). **Public Hearing** for the project was conducted on 18th December, 2015 at Chhara, Kodinar (Project site).
- (xi). **SCZMA Recommendations:** The Gujarat Coastal Zone Management Authority (GCZMA) has recommended the Project vide letter no. ENV-I0-2016-S0-E (T cell) dated February 2, 2017.
- (xii). There are no protected areas like National Parks, Wildlife Sanctuary and Biosphere Reserves within 10 km radius of the proposed site. Reserve forests are present in Sarakhadi, and Chhara villages on west and east side of the port site. Gir Wildlife Sanctuary and National Park is located at a distance of approximately 22 km from the proposed LNG Terminal site
- (xiii). There are two fresh water bodies within 10 km radius of the proposed site. These are Panchpipalva Bandhara (9.0 km towards North-East direction) and Sodam Bandhara (3.0 km towards east). Proposed project will not be withdrawing water or discharging any effluents to these water bodies.
- (xiv). Coastal beach on coast of Kodinar taluka is known for nesting of Sea turtles reported to regularly nest on flat sandy beaches at about 2 km from the project site towards east. Shoreline near the project site is rocky and not suitable for turtle nesting. Commercial fishing operations prevail in the near shore waters off Chhara-Madhwad using gill net operations. In deeper waters off Sarakhadi/Veraval fishing by trawlers is common. Due to presence of shoal bank no fishing activity is carried out at the site of proposed project.
- (xv). LNG terminal will be designed considering IS 1893 (Part 1): 2002 Indian Standard "Criteria for Earthquake Resistant Design of Structures" for buildings and non-process related structures. LNG terminal will be monitored and controlled from a continuously manned Central Control Room (CCR) located in the control Room building. Emergency Shut Down (ESD) system is part of the main Plant Control & Monitoring system
- (xvi). **Employment potential:** For the operation of LNG terminal around 100 people will be employed.
- (xvii). **Benefits of the project:** LNG Terminal will improve socioeconomic condition of the region as well as bring economic benefit to the people. It will also increase business and employment opportunity.

The proposal was earlier considered by the EAC in its 15th meeting held on 12th -14th April, 2017, wherein the Committee sought the following additional information:

- i. The issues emerged during public hearing and response point wise needs to be provided in tabular form and shall be incorporated in the EIA-EMP Report.
- ii. Provide copies of representation received in favour of the proposed project.
- iii. Any litigation pending against the project and/or any direction/order passed by any Court of Law against the project.

Now, the project proponent has submitted the additional information vide letter dated 27.04.2017. Copy of the additional information is also available on the website. The Project Proponent made a presentation on the observations made during the last meeting.

The EAC, on being satisfied with the submissions of the project proponent in response to its earlier observations, 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 clearance:

- (i). Construction activity shall be carried out strictly according to the provisions of 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 Gujarat Coastal Zone Management Authority (GCZMA) vide letter no. ENV-I0-2016-S0-E (T cell) dated February 2, 2017 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). Shoreline should not be disturbed due to any activity. 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.
- (v). The ground water shall not be tapped within the CRZ areas by the Project Proponent to meet with the water requirement in any case. Monitoring of ground water shall be carried out as per CGWA guidelines.
- (vi). A detailed marine biodiversity management plan, to the satisfaction of the State Biodiversity Board and the CRZ authority, shall be prepared through the NIOS or any other institute of repute on marine, brackish water and fresh water ecology and biodiversity and implemented. The report shall be based on a study of the impact of the project activities on the intertidal biotopes, corals and coral communities, molluscs, sea grasses, sea weeds, subtidal habitats, fishes, other marine and aquatic micro, macro and mega flora and fauna including benthos, plankton, turtles, birds etc. as also the productivity. The data collection and impact assessment shall be as per standards survey methods. It will also address to the whales and turtles and the impact of oil spills on the complete spectrum of marine biology.
- (vii). 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.
- (viii). The project proponents would also inventories the floral composition of the biota of marine and intertidal biotopes and draw up a detailed marine bio diversity conservation management plan based on possible impacts. The management plan shall be submitted also to the State Biodiversity Board and implemented to their satisfaction during the project cycle.

- (ix). Online pollutant monitoring shall be provided as per CPCB guidelines for monitoring particulate matter, SO₂, NO_x and CO from the stack. HC and CO to be included in the regular AAQ monitoring.
- (x). The project proponents would also draw up and implement a management plan for the prevention of fires due to simultaneous handling of coal and LNG in close vicinity.
- (xi). The project proponents will draw up and implement an action plan to watch the interest of the fishing communities, apprehensive of adverse impacts, particularly fisherman communities in the villages of Dhamleg, Muldwaraka, Chhara, Madhwad, Kotrada and Velna.
- (xii). Ship movements shall be so regulated that the mangroves of the Madhwad creek, reported to be 7 Kms away from the project site are not adversely affected.
- (xiii). 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.
- (xiv). 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.
- (xv). All the recommendations mentioned in the rapid risk assessment report, disaster management plan and safety guidelines shall be implemented.
- (xvi). The commitments made during the Public Hearing and recorded in the Minutes shall be complied with letter and spirit. A hard copy of the action taken shall be submitted to the Ministry.
- (xvii). Vocational Training shall be included in the CSR.
- (xviii). 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.

18.3.11 Extension of Breakwater at Chhara Port, Village Chhara-Sarkhadi, Taluka Kodinar, Dist. Gir Somnath, Gujarat by M/s Simar Port Pvt. Ltd. – Further consideration for Environmental and CRZ Clearance – [F.No.11-2/2014-IA.III] [IA/GJ/MIS/61508/2014]

The project proponent made a presentation and provided the following information to the Committee:-

- (i) The project is for extension of Breakwater at village Chhara-Sarkhadi, Taluka Kodinar, District Gir Somnath, Gujarat promoted by M/s Simar Port Ltd.
- (ii) Project site is about 50 km west of Diu. Proposed project site lies at Latitude 20°40'-20°45'N and Longitude 70°41'– 70°48' E.
- (iii) As per the Port Master Plan, it is envisaged that total of ten berths will be constructed (four bulk (dry/liquid) berths; three container berths; two LNG berths and one POL berth). The cargo planned to be handled would be 40 MTPA of bulk; 2 Million TEU of containers 20 MTPA of LNG and 10 MTPA of POL.
- (iv) Port will be developed in phases. Phase-I consists of coal terminal to handle up to 8 MMTPA coal and allied facilities. To achieve the tranquility condition required for operating the coal berth, a 1700 m long breakwater is planned to be constructed on the shoal bank.

- (v) MOEFCC granted EC for Phase I development in vide letter no. F.No.11-73/ 2009-IA.III dated 6th January 2014. Activities appraised and approved by MOEFCC are 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 of 1.5 Million Cum, Maintenance Dredging of 150,000 Cum per annum; Dredged Material Disposal at locations decided through modeling 25-30 M MSL contour in sea , development of Coal Stackyard (32 Ha), and allied infrastructure facilities including construction jetties.
- (vi) Phase II of the Port development consists of LNG terminal with storage and regasification facilities. LNG Terminal will be developed by HPCL Shapoorji Energy Private Limited (HSEPL), a Joint Venture between Shapoorji Pallonji and Hindustan Petroleum Corporation Ltd.
- (vii) To achieve the tranquility condition required for operating the LNG carriers, additional breakwater of 2800 m is required to be constructed on the shoal bank (Total final length 4500 m). Present is proposal is for seeking Environmental Clearance for this additional length of breakwater.
- (viii) Offshore island breakwater resting on a shoal bank will run more or less parallel to coastline at a distance of about 2500m from the shoreline. The breakwater foundation will rest over the shoal bank contour averaging (-) 7m CD.
- (ix) Breakwater will be rubble mound with TETRAPODS armour units for protection against waves. Trench for toe embedment will be formed with the rotary trench cutter or alternatively by controlled blasting of the soft bed rock and subsequent cleaning of the debris by excavator on barge. Rubble mound breakwater will be constructed with core stone overlain by secondary armour rock which will form the under-layer for primary armour. The outer layer will be protected with concrete armour units.
- (x) Rock requirement for breakwater construction of total length 4500 m has been estimated as Core Material (1 to 1000 Kg) 4.10 Million Tons, Secondary Armour (1 to 3.5 T) 0.98 Million Tons and Toe Armour (1 to 8.0 T) 0.20 Million Tons.
- (xi) EIA/ EMP studies have been carried out by NEERI and NIO. CRZ Maps have been prepared Institute of Remote Sensing, Chennai.
- (xii) **SCZMA Recommendations:** The Gujarat Coastal Zone Management Authority (GCZMA) recommended the Project vide letter no. ENV-10-2016-72-E (T cell) dated 2nd February, 2017.
- (xiii) In keeping with directions of GCZMA in meeting on May 24, 2016 two options for sourcing of rock for construction of breakwater were evaluated –
- Option A – Transport by Road - Rock required for construction of breakwater will be quarried from various quarries which are nearly 55 kms from the port site. Quarried rock will then be transported to the project site through the existing National and State Highways. The number of truck trip movements will be nearly over 400 per day.
 - Option B – Transport by Sea Route - The required quantity of rock (both core and armour) will be procured from outside India. Rock required for construction of breakwater (both core and armour grade) will be transported by ships having a parcel size of nearly 55,000 T. The ship will be anchored at a close location adjacent to the proposed breakwater alignment. Secondary and Toe armour rock will be transported using barges of 10,000 T. Rock from mother ship will be transhipped on to barges of suitable sizes for placement at breakwater location.

Based on environmental, social and techno-commercial evaluation Option B has been selected for breakwater.

- (xiv) Based on mathematical modelling it is envisaged that there will not be significant change in the flow regime except for a slight change in the current speeds at the break water. Maximum variation is expected at the western end of the breakwater and the magnitude will be 0.25 m/s.
- (xv) It is also envisaged that change or variation in the erosion rate will be very small and order of 10^{-5} kg/m²/s and is limited to the vicinity of the breakwater edges. No significant change in the instantaneous deposition rates is envisaged. Maximum rate of instantaneous deposition expected is 2.00×10^{-8} Kgm⁻²s⁻¹ at western end of breakwater.
- (xvi) **Cost of the project:** Rs. 830 crores.
- (xvii) **ToR details:** The Terms of Reference was granted vide letter No.11-2/2014-1A-III dated 18th June 2014. As per this letter the proposed breakwater extension is exempted from public hearing.
- (xviii) **Benefits of the project:** Tranquility condition required for operating the LNG carriers.

The proposal was earlier considered by the EAC in its 15th meeting held on 12th -14th April, 2017, wherein the Committee observed that exemption from Public hearing was granted by the earlier EAC because the proposed extension of berth was within the project area and the joint venture which will establish and operate the LNG Terminal at the proposed berth was to go for public hearing. The committee felt that since this proposal is linked to the project 'Development of LNG storage and regasification terminal at village Chhara Taluka Kodinar, District Gir Somnath, Gujarat promoted by M/s HPCL Shapoorji Energy Ltd', therefore any further consideration will only be possible after satisfactory submission of the additional information sought by the Committee in case of the project 'Development of LNG storage and regasification terminal....'

Now, the project proponent has submitted the additional information vide letter dated 27.04.2017. Copy of the additional information is also available on the website. The Project Proponent made a presentation on the observations made during the last meeting.

The EAC, on being satisfied with the submissions of the project proponent in response to its earlier observations, 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 clearance:

- (i) Construction activity shall be carried out strictly according to the provisions of 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 Gujarat Coastal Zone Management Authority (GCZMA) vide letter no. ENV-10-2016-72-E (T cell) dated 2nd February, 2017 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) Blasting with explosive has to be avoided and alternate methods like breakers, etc shall be used for hard strata.
- (viii) The required quantity of rock (both core and armour) should be transported through sea route.

- (ix) 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.
- (x) The ground water shall not be tapped within the CRZ areas by the PP to meet with the water requirement in any case.
- (xi) 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.
- (xii) Ambient Air Quality Monitoring shall be carried out twice a week as per CPCB/SPCB norms. Automatic Weather Station shall be installed at project site.
- (xiii) A detailed marine biodiversity management plan, to the satisfaction of the State Biodiversity Board and the CRZ authority, shall be prepared through the NIOS or any other institute of repute on marine, brackish water and fresh water ecology and biodiversity and implemented. The report shall be based on a study of the impact of the project activities on the intertidal biotopes, corals and coral communities, molluscs, sea grasses, sea weeds, subtidal habitats, fishes, other marine and aquatic micro, macro and mega flora and fauna including benthos, plankton, turtles, birds etc. as also the productivity. The data collection and impact assessment shall be as per standards survey methods.
- (xiv) 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.
- (xv) The project proponents would also draw up and implement a management plan for the prevention of fires due to simultaneous handling of coal and LNG in close vicinity.
- (xvi) The project proponents will draw up and implement an action plan to watch the interest of the fishing communities, apprehensive of adverse impacts, particularly fisherman communities in the villages of Dhamleg, Muldwaraka, Chhara, Madhwad, Kotrada and Velna.
- (xvii) Ship movements shall be so regulated that the mangroves of the Madhwad creek, reported to be 7 Kms away from the project site are not adversely affected.
- (xviii) The project proponents would also inventories the floral composition of the biota of marine and intertidal biotopes and draw up a detailed marine bio diversity conservation management plan based on possible impacts. The management plan shall be submitted also to the State Biodiversity Board and implemented to their satisfaction during the project cycle.
- (xix) 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.
- (xx) 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.
- (xxi) All the recommendations mentioned in the rapid risk assessment report, disaster management plan and safety guidelines shall be implemented.
- (xxii) Measures should be taken to contain, control and recover the accidental spills of fuel and cargo handle.

- (xxiii) The company will draw up and implement a Corporate Social Responsibility plan as per the Company's Act of 2013.
- (xxiv) 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.

18.3.12 Expansion of Outer Harbour Development of Hazira Port (Gujarat) by M/s Adani Hazira Port Pvt Ltd – Further consideration for Terms of Reference - [F.No.10-47/2016-IA-III] IA/GJ/MIS/55944/2016

The project proponent made a presentation and provided the following information to the Committee:-

- (i). The M/s Adani Hazira Port Private Limited (AHPPL) has set up multipurpose port at Hazira. Port and related infrastructure facilities have been developed as per EC & CRZ clearance of 2003, 2007 and 2013. Master plan includes total 12 multi-purpose berths out of which 7 berths (two container berths, one coal berth, one liquid berth and three multipurpose berths) were proposed to be developed in first 5 years (2012-2017).
 1. Environmental and CRZ clearance issued by MoEF & CC, New Delhi vide letter No.: 11-150/2010-IA.III dated 03rd May, 2013.
 2. CRZ Clearance issued by MoEF & CC, New Delhi vide letter No.: 160-11/11/2003-IA.III dated 26th June, 2003.
 3. Amendment in CRZ Clearance issued by MoEF & CC, New Delhi vide letter No.: J-16011/11/2003-IA-III, dated 12th November, 2003
 4. Amendment in CRZ/Environment Clearance issued by MoEF & CC, New Delhi vide letter No.: J-16011/11/2003-IA-III, dated 19th February, 2007
- (ii) Currently two container berths and three multipurpose berths and one liquid berth are developed. Construction of balance six multi-purpose berths as per the master plan is yet to start. Back up infrastructure is developed for handling and storage of multipurpose cargo including liquid.
- (iii) AHPPL now propose an expansion of port through outer harbor development and also conversion of existing berths to multipurpose. Outer harbor will consist of total 19 multi-purpose berths which can handle all kinds of dry cargo, project cargo, container cargo, liquid cargo and Cryogenic Gas up to -160°C.
- (iv) Total 521.4 Ha back up area will be reclaimed by using dredge material for creating back up infrastructure, utilities, amenities, storage and other ancillary facilities. Total Dredging will be 50 Million m³ for creating manoeuvring channel, basin and jetty with (-) 21 m CD draft. Construction of port basin in 189 Ha area. Rail sidings and road networks will be used for cargo evacuation.
- (v) Desalination plant of 100 MLD capacity is proposed with intake and outfall channel. STP of 4 MLD capacity and ETP of 5 MLD capacity will be developed in phased manner.
- (vi) Cumulative configuration (already approved and proposed expansion) of the Adani Hazira Port is given below

a. Number of berth	: 31 Nos (existing 12 and expansion 19)
b. Cargo Handling Capacity	: 234 MMTPA (Existing 84 and expansion 150)
c. Area of the project	: 1583.67 Ha. (Existing 873.27 and expansion 710.4)
d. Water requirement	: 116.5 MLD (Existing 16.5 and Expansion 100 MLD)

- e. Desalination Capacity : 115 MLD (Existing 15 MLD and expansion 100MLD)
 - f. Power requirement : 940 MWh/Day (Existing 240 and Expansion 700)
- (vii) Water required during construction activity (2.0 MLD approx.) of Outer Harbour expansion Plan will be met through the bowsers and existing water supply system.
 - (viii) Water requirement during operation phase (30 year Master Plan) will be approximately 30 MLD which will be met by proposed Desalination Plant of total 100 MLD capacity. This will be in addition to the approved 15 MLD capacity of desalination plan.
 - (ix) Feasibility of the utilization of treated waste water from the neighbouring industry will also be explored.
 - (x) STPs of 50 KLD + 25 KLD capacities are already operational against the approved capacity of 2 MLD. It is estimated that more 2 MLD domestic effluent will be generated. Thus the total capacity required for the STPs will be 4 MLD which will be developed in phased manner.
 - (xi) An ETP of 50 KLD capacity is already operational against approved capacity of 2.5 MLD. Capacity of the ETP will be increased up to 5.0 MLD (additional 2.5 MLD) in phased manner.
 - (xii) Municipal solid waste will be disposed of in compliance to the Solid waste management Rules 2016.
 - (xiii) The electric power requirement during construction phase will be approximately 9000 kWh/day which will be sourced from the existing power source (GEB). Electricity requirement during operation phase will be around 7,00,000 kWh/day. It will also be sourced from GEB. However, Renewable energy source will be explored. During operation phase, power back up in form of DG sets will be available to the tune of approximately 25 MVA. Diesel consumption for the same will be approx. 200 Lit/hr.
 - (xiv) Cost of the project is Rs.14030.50 Crore.

The proposal was earlier considered by the EAC in its 7th meeting held on 29th June 2016 and in 15th meeting held on 12th -14th April, 2017, wherein the Committee deferred the proposal as matter was sub-judice.

Now, the project proponent vide letter dated 27.04.2017 has submitted that Hon'ble High Court of Gujarat in its judgement dated 25.04.2017 has dismissed the SCA 8356 of 2016 filed by the M/s EBTL. Copy of the letter and Court judgement is also available on the website. During the presentation the Committee noted that the Hon'ble High Court of Gujarat at has dismissed the SCA 8356 of 2016. However a Civil Appeal Number 256 of 2016 in Hon'ble Supreme Court of India is still pending. AHPPL has filed Civil Appeal No. 256 of 2016 on 14th January, 2016 before the Hon'ble Supreme Court of India challenging the above mentioned order dated 8th January, 2016 of the NGT, Pune. The Hon'ble Supreme Court of India heard the matter on 28th January, 2016 and directed Company to deposit the amount of Rs. 25.00 Crore before the Collector, Surat, subject to final order in the matter pending before the Supreme Court. The Company has deposited the same as per the directives. All operations have continued as usual and also the construction of facilities as per previous ECs, as applicable. Matter is pending for further hearings on 03.07.2017 at Hon'ble Supreme Court.

The Committee deliberated upon the proposal and recommended for grant of additional ToR and the standard ToR as presented by the Project Proponent who indicated that they have already collected baseline data from the month of October, 2016 to January, 2017 (after the

submission of Form 1 by the project proponent). The Committee allowed using data for preparation of EIA-EMP Report.

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) The ToR is subject to final order of the Hon'ble Supreme Court of India in the Civil Appeal No. 256 of 2016.
- (ii) Importance and benefits of the project.
- (iii) The data collection and impact assessment shall be as per standards survey methods.
- (iv) A separate chapter on status of compliance of Environmental Conditions granted by State/Centre to be provided. As per circular dated 30th May, 2012 issued by MoEF&CC, a certified report by RO, MoEF&CC on status of compliance of conditions on existing port to be provided in EIA-EMP report.
- (v) Submit a copy of layout superimposed on the HTL/LTL map demarcated by an authorized agency on 1:4000 scale.
- (vi) Recommendation of the SCZMA.
- (vii) Stage -1 forest clearance for the involvement of forest land.
- (viii) Various Ports facilities with capacities for proposed project.
- (ix) List of cargo to be handled along with mode of transportation.
- (x) Layout plan of existing and proposed Port.
- (xi) A detailed analysis of the physico-chemical and biotic components in the highly turbid waters round the project site (as exhibited in the Google map shown during the presentation), compare it with the physico- chemical and biotic components in the adjacent clearer (blue) waters both in terms of baseline and impact assessment and draw up a management plan.
- (xii) Study the impact of dredging on the shore line.
- (xiii) A detailed impact analysis of rock dredging.
- (xiv) Action plan for disposal of dredged soil and rocks.
- (xv) Dispersion modeling for the dumping of the dredge materials shall be carried out. The study report shall be incorporated.
- (xvi) Details of air pollution control measures to be taken as well as cost to be incurred.
- (xvii) Total water consumption and its source. Wastewater management plan.
- (xviii) Details of Environmental Monitoring Plan.
- (xix) The impacts of rock excavation and dredging separately.
- (xx) A para-wise compliance to the consent conditions as may have been prescribed by the State Pollution Control Board.
- (xxi) A note on all complaints and representations that may have been received including the one received from Conservation Action Trust.
- (xxii) The EIA would follow the orders of the respective courts and include a chapter in the EIA on the Court cases including those at the Supreme Court and the NGT.
- (xxiii) The Marine biodiversity impact assessment report and management plan through the National Institute of Oceanography (NIOS) or any other institute of repute on marine,

brackish water and fresh water ecology and biodiversity. The report shall study the impact of the project activities on the intertidal biotopes, corals and coral communities, molluscs, sea grasses, sea weeds, subtidal habitats, fishes, other marine and aquatic micro, macro and mega flora and fauna including benthos, plankton, turtles, birds etc. as also the productivity. The data collection and impact assessment shall be as per standards survey methods.

- (xxiv) Disaster Management Plan for the above terminal.
- (xxv) Layout plan of existing and proposed Greenbelt.
- (xxvi) Status of court case pending against the project.
- (xxvii) A tabular chart with index for point wise compliance of above TORs.
- (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.

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.

18.3.13 Environmental Clearance for Expansion of "Paradise City" – Residential and commercial building At S. No. 942 Pt, at Village Mahim, Tal Palghar, Dist – Thane by M/s A Y Associates (M/s HDIL Creating Value and others) – Environmental Clearance (IA/MH/NCP/63211/2017; F.No.21-48/2017-IA-III)

The project proponent made a presentation and provided the following information to the Committee:-

- (i). The project is for expansion of affordable housing project at S. No. 942 Pt, at Village Mahim, Tal Palghar, Dist – Palghar.
- (ii). The project has received its earlier EC vide letter SEAC-2011/CR.731/TC.2 dated 2.3.2012 for phase-I plot area 3,04,709.19 sqm (out of total plot area of 6,83,910 sqm).
- (iii). The construction work carried out so far for phase-I is 3,01,721.27 sqm out of 3,42,382.22 sqm.
- (iv). Project proponent now intends to develop remaining plot area in phase-II with additional construction area of 5,60,657.46 sqm.
- (v). Total project (Phase I and phase II) will have construction area of 903039.68 sqm.
- (vi). Standard ToR was granted to the project vide letter No. No.21-48/2017-IA-III dated 15th March, 2017.

During the deliberation, the Committee noted that this is an expansion project and the Project Proponent has not submitted Certified Compliance Report of the conditions stipulated in the earlier environmental clearance issued for the project.

After detailed deliberation, the Committee sought following additional information:

- (i) Certified compliance report issued by the MoEF&CC Regional Office, Nagpur on environmental conditions stipulated in the existing environmental clearance.

- (ii) Give a conformity status to conditions stipulated in Annexure XIV of the amended EIA Notification vide S.O. 3999 (E) dated 09.12.2016.
- (iii) Notarized affidavit of undertaking by Board of Director(s) stating, no construction activity has commenced at the site and Project Proponent undertakes that the construction works will be commenced only after obtaining all necessary clearances from statutory authorities.
- (iv) It shall be ensured that water supply is only sourced from agencies possessing a CGWA clearance for ground water abstraction.
- (v) Detail plan for solid waste management.
- (vi) Submit an assessment of the cumulative impact of expansion and increased inhabitation being carried out or proposed to be carried out by the project for traffic densities and parking capabilities in a 5 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 also be submitted.
- (vii) Compliance report of ECBC norms

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

18.3.14 Extension of validity of Environmental and CRZ Clearance granted for development of four berths in western dock arm in Mangalore Port Trust, Karnataka by M/s New Mangalore Port Trust – Extension of Validity of Environmental Clearance (IA/KA/MIS/21480/1910; F.No.11-2/2010-IA-III)

The project proponent made a presentation and provided the following information to the Committee:-

- (i). The Port of New Mangalore (NMP), a gateway port for the vast hinterland of the State of Karnataka, is the 9th Major Port and a lagoon type harbour located on the west coast of India (12°55'N, 74°48'E) The port is located at 170 nautical miles South of Mormugao & 191 nautical miles North of Cochin Port.
- (ii). Presently there are 15 operating berths and one Single point mooring. The Single point mooring is used for handling Crude Oil for MRPL. Out of the 15 berths, 5 berths are used for handling liquid bulk and 2 berths are captive fully mechanized berths of KIOCL and UPCL for handling of iron ore Pellets and Thermal Coal respectively Balance 7 cargo berths are used for handling around 9.51 million tonnes of general cargoes including coal. The general cargo segment consists of Coal, edible oil, limestone, timbers, fertilizers, containers (around 60,000 TEUs), project cargo, food grains, granite, RO-RO cargoes etc.
- (iii). New Mangalore Port was proposed to develop four berths in western dock arm Accordingly the MoEF had cleared the construction of one berth out of 4 berths in western dock arm i.e., Berth No 15 to handle mechanized coal cargo for M/s UPCL vide letter no. J-13011/23/96-IA-2(t) part dated 04.07.2007.
- (iv). Thereafter Environment & CRZ Clearance for the development of remaining Berths i.e., No 16, 17 & 18 has been issued by MoEF vide letter No 11-2/2010-IA III dated 19.09.2011 and these berths were proposed to develop in phased manner.
- (v). In the first phase the development of Berth No.18 has been taken up. Construction of berth 18 has been completed with Port internal resources and providing mechanised handling facility is under construction through PPP mode. The providing mechanised handling facility at berth no.18 is schedule to commission by February, 2019.

- (vi). As per the master plan prepared by IPA during 2004, the projected traffic for the year 2016 -17 is 50.00 MMT, but Port has handled only 39.64 MMT of cargo as against the projection. Further, the required bulk & break bulk cargo to develop new berth did not grow as projected. Also Port proposed to mechanize existing deep draft multipurpose Berth No. 14 for handling container instead of developing new berth. Therefore the development of Berth No. 16 as bulk & break bulk terminal and Berth No. 17 as container terminal could not be taken up within the EC validity period.
- (vii). Meantime, Ministry of Shipping, Govt. of India has prepared Master Plan for all Major Ports in India through M/s AECOM (Sagarmala Consultant) during 2015-16. As per the report, the remaining two berths 16 & 17 are scheduled to take up only after 2019-20. Hence, it is necessary to obtain extension of validity for the existing Environment Clearance before its expiry to take up the projects later.

After detailed deliberation, the Committee recommended extension of the validity of EC&CRZ clearance issued vide letter No 11-2/2010-IA III dated 19.09.2011 up to 18.09.2021.

18.3.15 “Kaleidoscope Township” an Integrated Township Project, Taluka: Mulshi, District: Pune by M/s Kaleidoscope Developers Pvt. Ltd – Environmental Clearance IA/MH/NCP/63813/2017 F. No.21-52/2017-IA-III

The project proponent made a presentation and provided the following information to the Committee:-

- (i). A township namely “Kaleidoscope Township” an Integrated Township Project is proposed at S.No.125/5,126/1,126/2,126/3,126/4,127/1,127/3,127/4,127/5, 128/1, 128/3, 128/4,128/5,129/2,129/5,129/6,131/1,131/2,131/3,131/4,131/5,131/6,131/7,132/1,132/2,133/1,133/2,133/3,133/4,133/5,134/1,135/1,135/2,135/3,136/1,136/2,136/3,137/1+2,138/1, 138/2,138/3,138/4,138/5,140,141/1,141/2,141/3,141/4,141/5,142/1,142/2,142/3,142/4,142/5,142/6,142/7,143,144/1/2A,144/1/2B,144/1/2C,144/1/2D,144/2,144/3a,145/1,145/2,145/3,145/4,145/5,146/1,146/2,146/3,146/4,146/5,146/6,147/1,147/2,147/3,148,149/1,149/2,150/1,150/2,150/3,150/4,150/5,150/6,150/7,151/1,151/2,151/3,152/1,152/2,153/1,153/2,154/1,154/2,154/3,154/4,154/5/1,154/5/2,154/5/3,154/6,154/7,154/8,154/9,154/10,154/11,154/12,154/13,154/14,154/15,155/1,155/2,155/3,155/4,155/5,155/6,155/7,156/1,156/2,156/3,156/4,156/5,156/6,156/7,156/8,157,159,188/2,197/1,197/2,197/3,197/4,197/5,197/6,197/7,197/8,197/9,197/10,197/11,197/12,197/13,197/14,197/15,197/16,197/17,197/18,197/19,197/20,197/21,197/22,197/23,197/24,197/25,197/26,197/27,197/28,197/29,197/30,197/31,197/32,198,199,200,201,207,208, Village: Bhugaon, Taluka: Mulshi, District: Pune -412115 .Proposed ByM/s Kaleidoscope Developers Pvt. Ltd.
- (ii). Total Plot area is 5,46,704 sqm while FSI area and Non FSI Area are 5,46,704 sqm and 6,43,635 sqm respectively. Total area under construction is 11,90,339 sqm. The tenement statement is as follows:

TENEMENT STATEMENT - KALEIDOSCOPE INTEGRATED TOWNSHIP PROJECT				
Sr. No.	Building type	Number of buildings	Configuration	No. of Tenement
1	R5 - Residential -5	10	Podium A – Lower Stilt+Upper Stilt+P1+P2+35 Floors Podium B –Lower Stilt+Upper Stilt+P1+P2+P3+35 Floors	1690
2	R2 - Residential-2	8	Podium A – Lower Stilt+P1+P2+P3+P4+P5+35 Floors Podium B – Lower Stilt+P1+P2+P3+35 Floors	1352
3	R1 - Residential-1	12	Lower Ground+Upper Ground+Ground+P1+P2+18 Floors	1152
4	R4- Residential-4	7	Stilt+P1+P2+35 Floors	1183
5	R3 - Residential Autistic Sector	2	Lower Stilt+ Upper Stilt + 21 Floors	200
6	B1 -Social Housing -EWS/ LIG	12	Lower Stilt+ Upper Stilt+15Floors Lower Stilt+ Upper Stilt+13Floors	1312
7	E3 -Mixed Use Sector	1	Lower stilt+Middle Stilt+UpperStilt+P1+P2+P3+15 Floors (Rental EWS)	236
8	B2 -Rental Hostel - Autistic	1	5 Floors	15
9	B3 -Autistic School	1	6 Floors	0
10	A2 - Township School	1	6 Floors	0
11	A1 -Town Hall	1	5 Floors	0
12	E1 -Retail – 1	1	2 Floors	0
13	E2 -Retail – 2	1	2 Floors	0
14	E4 - Commercial Sector	1	Stilt+P1+P2+4 Floors	0
15	E5 -Ayurvedic resort	1	4 Floors	0
16	E6 -Research center	3	4 Floors	0
				7140

- (iii). The cost of the project is Rs. 2566 Crores.
- (iv). Total water requirement shall be 6276 KLD. Fresh water requirement of 3381 KLD will be supplied by Irrigation Department, Pune.
- (v). Total Waste water generated shall be 4691 KLD for which STP Capacity of 4925 KLD m³/day. The MBBR Technology will be used to treat the wastewater from project site. About 469 kg/day sewage sludge will be generated.
- (vi). Total Recycled water shall be 2895KLD, Flushing Water Requirement -1831 KLD and R.G Water Required -1064KLD.
- (vii). Biodegradable waste shall be 9952 Kg/Day which will be treated in (organic waste converter) OWC and the manure will be used for landscaping at site. Non-biodegradable waste shall be 7051 Kg/Day and will be handed over to recyclers/vendors for further use.
- (viii). Energy will be conserved by energy efficient light fixtures, solar energy and energy efficient equipment's. The Maximum demand will be 13,125 kW and connected load is 43,130 kW.
- (ix). The proposed RG area is 1,77,415 sqm on ground.
- (x). Total four-wheelers parking provided will be 9923 nos. and for two-wheelers parking provided will be 23377 nos.
- (xi). Rainwater of buildings will be collected and 85 No. of RWH pits shall be provided for storm water recharging to ground.
- (xii). Employment generation: Employment opportunities for skilled and unskilled workers will be provided within project area.
- (xiii). Standard ToR was granted to the project by MoEF&CC vide letter No. 21-52/2017-IA-III dated 15.03.2017.
- (xiv). **Benefit of the Project:** The project being a well-planned activity will result in organized open spaces and green areas. The biodiversity in the area will increase due to proposed

green areas. Community cum recreational facilities will be developed hence no stress on the existing facility is anticipated.

The Committee discussed the project in detail and noted that parking is provided as per norms. No basement is proposed in the project. Affidavit regarding no construction activity has commenced at the site and the construction works will be commenced only after obtaining all necessary clearances from statutory authorities is also submitted by the Project proponent. After detailed deliberations, the Committee 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:

PART A – SPECIFIC CONDITIONS:

I. Construction Phase

- (i) 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.
- (ii) The natural drain system should be maintained for ensuring unrestricted flow of water. No construction shall be allowed to obstruct the natural drainage through the site, on wetland and water bodies. Check dams, bio-swales, landscape, and other sustainable urban drainage systems (SUDS) are allowed for maintaining the drainage pattern and to harvest rain water. Buildings shall be designed to follow the natural topography as much as possible. Minimum cutting and filling should be done.
- (iii) Construction site shall be adequately barricaded before the construction begins. Dust, smoke & other air pollution prevention measures shall be provided for the building as well as the site. These measures shall include screens for the building under construction, continuous dust/ wind breaking walls all around the site (at least 3 meter height). Plastic/tarpaulin sheet covers shall be provided for vehicles bringing in sand, cement, murrum and other construction materials prone to causing dust pollution at the site as well as taking out debris from the site. Sand, murrum, loose soil, cement, stored on site shall be covered adequately so as to prevent dust pollution. Wet jet shall be provided for grinding and stone cutting. Unpaved surfaces and loose soil shall be adequately sprinkled with water to suppress dust.
- (iv) All construction and demolition debris shall be stored at the site (and not dumped on the roads or open spaces outside) before they are properly disposed. All demolition and construction waste shall be managed as per the provisions of the Construction and Demolition Waste Rules, 2016. All workers working at the construction site and involved in loading, unloading, carriage of construction material and construction debris or working in any area with dust pollution shall be provided with dust mask.
- (v) At least 20% of the open spaces as required by the local building bye-laws shall be pervious. Use of Grass pavers, paver blocks with at least 50% opening, landscape etc. would be considered as pervious surface.
- (vi) Compliance with the Energy Conservation Building Code (ECBC) of Bureau of Energy Efficiency shall be ensured. Buildings in the States which have notified their own ECBC, shall comply with the State ECBC. Outdoor and common area lighting shall be LED. Concept of passive solar design that minimize energy consumption in buildings by using design elements, such as building orientation, landscaping, efficient building envelope, appropriate fenestration, increased day lighting design and thermal mass etc. shall be incorporated in the building design. Wall, window, and roof u-values shall be as per ECBC specifications.
- (vii) Use of water saving devices/ fixtures (viz. low flow flushing systems; use of low flow faucets tap aerators etc) for water conservation shall be incorporated in the building plan.

- (viii) Installation of dual pipe plumbing for supplying fresh water for drinking, cooking and bathing etc and other for supply of recycled water for flushing, landscape irrigation, car washing, thermal cooling, conditioning etc. shall be done.
- (ix) Separation of grey and black water should be done by the use of dual plumbing system. In case of single stack system separate recirculation lines for flushing by giving dual plumbing system be done.
- (x) Sewage shall be treated in the STP based on Moving Bed Biofilm Reactor (MBBR) Technology. The treated effluent from STP shall be recycled/re-used for flushing, horticulture & DG cooling.
- (xi) 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. As proposed, Rainwater of buildings will be collected and 85 No. of RWH pits shall be provided for storm water recharging to ground after filtration as per CGWB guidelines.
- (xii) 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. As proposed, 4626.64 m² of 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.
- (xiii) Solar based electric power shall be provided to each unit for at least two bulbs/light and one fan. As proposed, central lighting and street lighting shall also be based on solar power.
- (xiv) A First Aid Room shall be provided in the project both during construction and operations of the project.
- (xv) Topsoil should be stripped to a depth of 20 cm from the areas proposed for buildings, roads, paved areas, and external services. It should be stockpiled appropriately in designated areas and reapplied during plantation of the proposed vegetation on site.
- (xvi) Disposal of muck during construction phase shall not create any adverse effect on the neighboring communities and be disposed taking the necessary precautions for general safety and health aspects of people, only in approved sites with the approval of competent authority.
- (xvii) The diesel generator sets to be used during construction phase shall be low sulphur diesel type and shall conform to Environmental (Protection) prescribed for air and noise emission standards.
- (xviii) Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.
- (xix) As proposed, no ground water shall be used during construction/ operation phase of the project.
- (xx) Approval of the CGWA require before any dewatering for basements.
- (xxi) 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.
- (xxii) Any hazardous waste generated during construction phase, shall be disposed off as per applicable rules and norms with necessary approvals of the State Pollution Control Board.
- (xxiii) Vehicles hired for bringing construction material to the site should be in good condition and should have a pollution check certificate and should conform to applicable air and noise emission standards be operated only during non-peak hours.

- (xxiv) Ambient noise levels shall conform to residential standards both during day and night as per Noise Pollution (Control and Regulation) Rules, 2000. Incremental pollution loads on the ambient air and noise quality shall be closely monitored during construction phase. Adequate measures shall be made to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by CPCB / SPCB.
- (xxv) Use of environment friendly materials in bricks, blocks and other construction materials, shall be required for at least 20% of the construction material quantity. These include Fly Ash bricks, hollow bricks, AACs, Fly Ash Lime Gypsum blocks, Compressed earth blocks, and other environment friendly materials. Fly ash should be used as building material in the construction as per the provision of Fly Ash Notification of September, 1999 and amended as on 27th August, 2003 and 25th January, 2016. Ready mixed concrete must be used in building construction.
- (xxvi) No ponds shall be infringed and used for landfill. The depression where land filling is proposed should be suitably certified that it is not a notified pond.
- (xxvii) A comprehensive mobility plan, as per MoUD best practices guidelines (URDPFI), shall be prepared to include motorized, non-motorized, public, and private networks. Road should be designed with due consideration for environment, and safety of users. The road system can be designed with these basic criteria.
- Hierarchy of roads with proper segregation of vehicular and pedestrian traffic.
 - Traffic calming measures
 - Proper design of entry and exit points.
 - Parking norms as per local regulation

II. Operational Phase

- (i) The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution. Low sulphur diesel shall be used. The location of the DG set and exhaust pipe height shall be as per the provisions of the Central Pollution Control Board (CPCB) norms.
- (ii) For indoor air quality the ventilation provisions as per National Building Code of India.
- (iii) Fresh water requirement from Municipal Water Supply shall not exceed 3381 m³/day.
- (iv) The quantity of fresh water usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance as projected by the project proponent. The record shall be submitted to the Regional Office, MoEF&CC along with six monthly Monitoring reports.
- (v) The installation of the Sewage Treatment Plant (STP) shall be certified by an independent expert and a report in this regard shall be submitted to the Ministry before the project is commissioned for operation. Periodical monitoring of water quality of treated sewage shall be conducted. Necessary measures should be made to mitigate the odour problem from STP.
- (vi) No sewage or untreated effluent water would be discharged through storm water drains.
- (vii) Sludge from the onsite sewage treatment, including septic tanks, shall be collected, conveyed and disposed as per the Ministry of Urban Development, Central Public Health and Environmental Engineering Organization (CPHEEO) Manual on Sewerage and Sewage Treatment Systems, 2013.
- (viii) The provisions of the Solid Waste (Management) Rules, 2016, e-Waste (Management) Rules, 2016, and the Plastics Waste (Management) Rules, 2016 shall be followed.

- (ix) Solar power shall be used for lighting in the apartment to reduce the power load on grid. Separate electric meter shall be installed for solar power. Solar water heaters shall be used to meet hot water demand, as far as possible.
- (x) Energy conservation measures like installation of CFLs/ LED for the lighting the area outside the building should be integral part of the project design and should be in place before project commissioning. Used CFLs, TFL and LED shall be properly collected and disposed off/sent for recycling as per the prevailing guidelines/rules of the regulatory authority to avoid mercury contamination.
- (xi) A minimum of 1 tree for every 80 sq.mt. 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.
- (xii) An environmental management plan (EMP) shall be prepared and implemented to ensure compliance with the environmental conditions specified above. 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, 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.

18.3.16 Expansion of Rajiv Gandhi International Airport at Village Shamshad, Hyderabad, Telangana by M/s Hyderabad International Airport Limited – Environmental Clearance – [F.No.10-35/2016-IA-III] [IA/TG/MIS/52885/2016]

The project proponent made a presentation and provided the following information to the Committee:-

- (i). GMR Hyderabad International Airport Limited (GHIAL) was incorporated on 17th December, 2002 to design, build, finance, operate and to maintain the Rajiv Gandhi International Airport (RGIA) at Shamshabad, Telangana. GHIAL signed the Concession Agreement with the Ministry of Civil Aviation (MoCA) on 20th December, 2004 for a period of 30 years. Rajiv Gandhi International Airport (RGIA) is operated and managed by the GMR Group, which holds a majority stake in GHIAL through its holding company GMR Airports Limited (GAL).
- (ii). RGIA has obtained the Environment Clearance for the expansion of the airport from 7 MPPA to 12 MPPA vide approval letter No. 10-14/2006-IA-III dated 10.04.2007. Presently, the airport has design capacity of 12 MPPA and cargo handling capacity of 1,00,000 TPA (sanctioned capacity is 3,00,000 TPA).
- (iii). Terms of Reference (ToR) for the proposal was granted by MoEF&CC vide letter No. 10-35/2016-IA.III dated 11th July, 2016 and amendment letter dated 24th November, 2016.
- (iv). RGIA is located at 17^o14'26" North, 78^o25'44" East, at an average elevation of 560 m - 630 m above mean sea level. Currently, the NH-7 is one of the major arterial roads providing accesses to the traffic bound to RGIA. The existing NH-7 in this portion has 6-lane carriageway and the access road to airport is of 4 lane configuration. The junction on the NH-7 is designed as a Trumpet Interchange. NH-7 is currently under up-gradation where in it is expected to be widened to 6-lane carriageway. The railway track from Hyderabad to Bangalore runs alongside the NH-7 at this location, however it is a regional rail route and has no stops near RGIA except for the MMTS links stoppage at Umdanagar railway station which is about 8 km from airport.

- (v). RGIA is located within 5495 acres of land of which about 2000 acres has been developed towards airport need which is mainly constituting of 1700 acres of airside & 300 acres of landside facilities. No land acquisition is involved as all the expansion activities are planned within the RGIA site area of 5495 acres.
- (vi). The total water requirement after expansion would be 12,617 KLD, out of which about 7765 KLD is potable water which will be met from Hyderabad Metro Water Supply and Sewerage Board (HMWSSB) and balance 4852 KLD is non potable water which will be met by recycling of treated wastewater and other water conservation measures.
- (vii). The additional power requirement due to the proposed terminal expansion at the airport complex would be 4000 KWH. The total power requirement for the additional proposed facilities will be met from the existing power supply of Telangana Power Transmission Corporation Limited (TSTRANSCO) to the airport. The existing back up power supply available for the airport will be extended for the expanded facility in the complex. The existing power demand for airport operation of 16.4 MVA is being sourced from TSTRANSCO. Over and above the same, the demand projected for SEZ of 43 MVA will also be sourced from TSTRANSCO commensurate to actual development.
- (viii). The existing car parking zone at RGIA is located right in front of the PTB in an approximate area of 40 acres. The salient features of car parking zone are listed below:
- Car park is divided into 11 zones
 - Capacity of car park is 3203 bays- 4 wheeler vehicles;
 - 480 bays- 2 wheeler vehicles; and
 - 20 – bus bays.

The existing car parking is adequate for the proposed expansion of RGIA.

- (ix). **Public Hearing:** As directed by EAC & MoEF&CC, Public hearing of the proposed expansion of RGIA project was carried out by Telangana State Pollution Control Board on 28th February 2017 at 11:00 am under the Chairmanship of the Collector and District Magistrate at Special Handling Terminal, Rajiv Gandhi International Airport, Shamshabad village, Hyderabad, Telangana as per the provisions and procedures of Environment Impact Assessment Notification dated 14th September 2006. The proceedings of the public hearing has been incorporated in the draft EIA report and the final EIA report is submitted for Environmental Clearance to the MoEF&CC.
- (x). **Cost of the Project:** The estimated capital expenditure for the proposed expansion of the RGI Airport project is Rs. 2629 Crores.
- (xi). **Employment potential:** Project construction is expected to generate more than 5000 direct employment and double the figure indirect employment which will span across 5-6 years. The indirect employment generation of about 4000 persons is envisaged for utility services along with other 5000 to 6000 in commercial & support services.
- (xii). **Benefits of the Project:** The proposed airport expansion project would have some environmental impacts as detailed in the EIA report; these can be effectively mitigated by judicious implementation of the environment management plan as suggested. The proposed project will provide direct employment to a large number of personnel, generate considerable revenue for the Hyderabad City & State of Telangana. This project will also generate considerable number of indirect employment.

The EAC deliberated upon the issues raised during the Public Hearing/Public Consultation meeting conducted by the Telangana State Pollution Control Board on 28th

February 2017. The issues were raised regarding employment, drinking water supply, rainwater harvesting system, food and shelter for orphanage, use of solar power and energy saving devices, provisions for public conveyance, development and maintenance of green belt, control measures to reduce air and noise pollution etc. The Committee noted that issues have satisfactorily been responded by the project proponent and incorporated in the final EIA-EMP report. The Committee also deliberated on the certified compliance report letter No. EP/12.I/242, 867/AP/0078, F. No. EP/12.I/2010-11/13/AP dated 13.01.2017 issued by the MoEF&CC's Regional Office (Southern Zone), Chennai stating satisfactory compliance of environmental conditions stipulated in earlier ECs issued by the Ministry.

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

- i. As proposed, environmental clearance is for Expansion of Rajiv Gandhi International Airport at Village Shamshad, Hyderabad, Telangana.
- ii. PP shall obtain clearance from DGCA and AAI for safety and project facilities.
- iii. Construction site should be adequately barricaded before the construction begins.
- iv. 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.
- v. 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.
- vi. The excavation working area should be sprayed with water after operation so as to maintain the entire surface wet.
- vii. 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.
- viii. A detailed drainage plan for rain water shall be drawn up and implemented.
- ix. 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.
- x. 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.
- xi. Where construction activity is likely to cause noise nuisance to nearby residents, restrict operation hours between 7 am to 6 pm.
- xii. 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 Rule, 2016 and Construction and Demolition Waste Rules, 2016.
- xiii. 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.
- xiv. 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.

- xv. Proper drainage systems, emergency containment in the event of a major spill during monsoon season etc shall be provided.
- xvi. 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.
- xvii. 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.
- xviii. 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.
- xix. Total fresh water requirement from Hyderabad Metro Water Supply and Sewerage Board shall not exceed 7765 KLD.
- xx. Wastewater generation shall not exceed 7162 KLD as proposed and treated in the STP. Treated sewage shall be recycled/reused for cooling tower make up, flushing and horticulture.
- xxi. 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.
- xxii. 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.
- xxiii. 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.
- xxiv. 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.
- xxv. Provision of Electro-mechanical doors for toilets meant for disabled passengers. Children nursing/feeding room to be locate conveniently near arrival and departure gates.
- xxvi. An assessment of the cumulative 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 05 kms. radius from the site. A detailed traffic management and a traffic decongestion plan drawn up through an organisation of repute and specialising in Transport Planning shall be implemented to the satisfaction of the State Urban Development and Transport Departments shall also include the consent of all the concerned implementing agencies.
- 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.
- 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.
- xxix. The concerns of the Public hearing panel shall be suitably addressed to and the recommendations adopted as part of the Environmental Management Plan and in the plan for C.S.R. as applicable.

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

18.3.17 Kakinada SEZ Port Phase-I at Kona Village, Thondangi Mandal, East Godavari District, Andhra Pradesh by M/s Kakinada SEZ Limited - Environmental and CRZ Clearance – [F.No.10-24/2008-IA-III] [IA/AP/MIS/158/2012]

The project proponent made a presentation and provided the following information to the Committee:-

- (i). Kakinada SEZ Limited (formerly Kakinada SEZ Private Limited), a subsidiary company of GMR Infrastructure Limited, proposes to develop an “All-Weather, Deep-Water, Multi-Purpose Kakinada SEZ Port” at Kona Village, Thondangi Mandal, East Godavari District, Andhra Pradesh on the East Coast of India. Kakinada SEZ Port is proposed to be developed in multiple phases based on market scenario and present proposal is for Phase-I development with a capacity of 16 MTPA to handle dry bulk and multi-purpose/general cargo and to handle upto 1,20,000 DWT vessels.
- (ii). Phase-I activities are planned in 206 ha and additional 609 ha is earmarked for future development of port as well as other logistics (warehouses, CFS, logistics park), Marine Projects (ship building, ship repair, offshore supply base).
- (iii). Development plan comprises of three (03) cargo berths (one coal berth and two multipurpose berths), one port crafts berth, Breakwaters (NBW: 850 m, SBW: 3000 m), Approach Channel (Inner (-) 17.88 m CD and outer (-) 19.51 m CD depth with 205 m width) and Turning Circle (542 m dia), Capital Dredging (13.4 MCM), capital dredged material reuse for raising the level of back-up (7.0 MCM) and capital dredged material Disposal at identified offshore areas or beach nourishment (6.4 MCM), navigational and backup facilities. Stack yard for multipurpose berths, Coal Stack yard, Port colony, Truck/Tractor trailer parking (5 ha), Port buildings, Utilities, Road and Rail corridor, Substation, Fire-Fighting Facilities, Green belt (20 ha), Approach Road, Warehouses and Covered Area, Dust Suppression System, Wind Barrier, Wastewater management and solid waste Management and others.
- (iv). The EIA has been prepared by M/s. L&T Infrastructure Engineering Limited based on approved ToR and addresses all issues pertaining to marine, terrestrial and socio-economic aspects of the project.
- (v). The water requirement during construction phase will be 155 KLD and during operational phase will be 772 KLD (additional one time requirement of fire water demand of 735 KL). The source will be Samalkota Canal/Nakkalakhundi Drain/Polavaram left canal. Water allocation of 5 MGD (22,730 m³/day) from Samalkota Canal was obtained vide Irrigation and CAD (I&CAD) Department G.O. Ms. No.58 dated April 11, 2008 and Andhra Pradesh Industrial Infrastructure Corporation Limited (APIIC) letter no. ADV-II/APIIC/1151/2010-11 dated October 15, 2013. Alternatively, water source from Nakkalakhundi drain will also be explored.
- (vi). Municipal Solid Waste (MSW) generation will be 1.3 TPD. Solid Waste Management measures such as Organic Waste Composter; Proper collection, handling and transport system and disposal.
- (vii). ToR approval from MoEF&CC was obtained vide letter No. 10-24/2008-IA.III dated February 07, 2013.
- (viii). The CRZ mapping, HTL and LTL demarcation of the proposed project has been carried out by CSIR - National Institute of Oceanography (NIO). The project development falls in CRZ I(A), CRZ I(B), CRZ III, CRZ IV(A) and the activities proposed within CRZ area are

permissible as per CRZ Notification, 2011. Andhra Pradesh Coastal Zone Management Authority (APCZMA) has issued NOC for CRZ clearance vide letter No. 35/APCZMA/2017 dated 20th March, 2017.

- (ix). Public hearing for the project was conducted by Andhra Pradesh Pollution Control Board on December 30, 2016 at Project Site, Kona Revenue lands, Near Laksmunudu Peta, Hamlet of K. Perumallapuram Panchayat, East Godavari District and the issues raised during the public hearing have also been addressed in the Final EIA Report.
- (x). The estimated Project Cost for the Phase-I development Rs. 2,123.425 Crores.
- (xi). The project is expected to be commissioned in 36 months after obtaining necessary statutory clearances.

The EAC deliberated upon the issues raised during the Public Hearing/Public Consultation meeting conducted by the Andhra Pradesh Pollution Control Board on 30th December, 2016. The issues were raised regarding compensation, employment, livelihood of fisherman, drinking water supply, water/air pollution problem, houses and roads in the vicinity should not be disturbed, etc. The Committee noted that issues have satisfactorily been responded by the project proponent and incorporated in the final EIA-EMP report.

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

- (i) Construction activity shall be carried out strictly according to the provisions of 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 (APCZMA) vide letter No. 35/APCZMA/2017 dated 20th March, 2017 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) Dredging management plan shall be drawn and implement with a view to control impact on turbidity apart from providing silt screens.
- (viii) 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.
- (ix) The ground water shall not be tapped within the CRZ areas by the PP to meet with the water requirement in any case.
- (x) 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.
- (xi) A detailed marine biodiversity management plan, to the satisfaction of the State Biodiversity Board and the CRZ authority, shall be prepared through the NIOS or any other institute of repute on marine, brackish water and fresh water ecology and biodiversity and implemented. The report shall be based on a study of the impact of the project activities on the intertidal biotopes, corals and coral communities, molluscs, sea grasses, sea

weeds, subtidal habitats, fishes, other marine and aquatic micro, macro and mega flora and fauna including benthos, plankton, turtles, birds etc. as also the productivity. The data collection and impact assessment shall be as per standards survey methods.

- (xii) 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.
- (xiii) The Queries and comments raised by the participants during the Public hearing to the project held on December 30, 2016 will be suitably documented in the form of a management plan drawn up to address to the expressed concerns and complied/implemented in letter and spirit.
- (xiv) The project proponents would also draw up and implement a management plan for the prevention of fires due to simultaneous handling of coal and LNG in close vicinity.
- (xv) The project proponents would also inventories the floral composition of the biota of marine and intertidal biotopes and draw up a detailed marine bio diversity conservation management plan based on possible impacts. The management plan shall be submitted also to the State Biodiversity Board and implemented to their satisfaction during the project cycle.
- (xvi) 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.
- (xvii) 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.
- (xviii) All the recommendations mentioned in the rapid risk assessment report, disaster management plan and safety guidelines shall be implemented.
- (xix) Measures should be taken to contain, control and recover the accidental spills of fuel and cargo handle.
- (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.

Day 2, Friday, 26th May, 2017

18.4.1 Development of LNG Facility at Kakinada Deep Water Port (KDWP) Berth 7 located adjacent to Survey no. 317/318, GMR barge mounted power plant located at Survey no. 411,413, Tehsil Kakinada, District East Godavari, Andhra Pradesh by M/s GMR Holding Pvt. Ltd.- Environmental and CRZ Clearance – [F.No.10-30/2016-IA-III] [IA/AP/MIS/52545/2016]

The project proponent made a presentation and provided the following information to the Committee:-

- (i). GMR Enterprises Pvt. Ltd (GEPL) (Formerly GMR Holding Pvt Ltd and LNG Express India Pvt. Ltd. through their SPV are proposing to import LNG at Kakinada Deep Water Port (KDWP) in the state of Andhra Pradesh and supply LNG/RLNG to meet the demand of domestic customers.
- (ii). GMR Energy Limited (GEL), subsidiary of GEPL, has three operating power plants i.e. 220 MW barge mounted power plant near KDWP and 1138 MW gas based power plants

at Vemagiri. Proposed LNG facility will cater to the gas requirements of the GMR power plants. Additionally, it is envisaged that other existing gas based power plants, and upcoming industries would be benefitted from the proposed LNG facility at Kakinada Port. The project envisages to import 1.75 MTPA of LNG for this purpose.

- (iii). The proposed LNG import facility will be located at latitude 16⁰57'42"N and longitude 82⁰16'33"E within Kakinada Port Limits, East Godavari District, Andhra Pradesh. The LNG jetty will be located adjacent to Berth 7 of KDWP and backup area of about ~24.9 ha (61.6 acres) will be developed for LNG storage, regasification, truck loading facility, send out and metering facilities and utilities. Berthing facilities for LNGC consist of six (6) Mooring Dolphins, four (4) Breasting Dolphins and one Central Platform. LNG will be imported using LNG Carrier (LNGC) ranging in size up to 160000 m³. Four unloading arms will be provided at jetty.
- (iv). LNG will be unloaded continuously and pumped to LNG storage tank of 15000 cu.m capacity and re-gasification as per the requirement. Glycol water based STV using ambient air and/ or waste heat recovery systems along with AAV vaporization will be used as regasification technology. The capital and maintenance dredging is estimated at 2.9 MCM and 0.1 MCM respectively.
- (v). The dredged material will be disposed at KDWP identified offshore disposal ground.
- (vi). The Power and Water requirement will be of the tune of 10 MW (in-house power generation with BOG) and 387.5 KLD respectively.
- (vii). The total greenbelt/ green areas will be about 15.4 acres.
- (viii). ToR for EIA study was obtained vide F.No:10-30/2016-IA.III dated May 20, 2016 from MoEF&CC.
- (ix). The EIA has been prepared by M/s. L&T Infrastructure Engineering Limited based on approved ToR and addresses all issues pertaining to marine, terrestrial and socio-economic aspects of the project. Air quality modelling study has been carried out which suggests predicted ground level concentrations will be well within the National Ambient Air Quality Standards.
- (x). Public hearing for the project was conducted on December 17, 2016, at office premises of Director of Ports, beach road, Kakinada, East Godavari District and the issues raised during the public hearing have also been addressed in the final EIA report.
- (xi). The CRZ mapping / HTL & LTL demarcation of the proposed project has been carried out by Institute of Remote Sensing (IRS), Anna University, Tamil Nadu. The project facilities fall within CRZ III and IVA area and these are permissible as per CRZ Notification, 2011. Andhra Pradesh Coastal Zone Management Authority (APCZMA) has recommended the Project to MOEF &CC vide letter No.34/APCZMA/2017 dated 20.03.2017. As the project is falling within 10km of the Coringa Wildlife sanctuary, necessary application to National Board for Wildlife (NBWL) is also made and under consideration.
- (xii). The cost for development of LNG facility and supply pipe line is approximately Rs. 950 crores and the project is expected to be commissioned in 13 months after obtaining necessary statutory clearances.
- (xiii). Employment Generation: During construction phase:~100 and operational phase-450 (Direct: 40, Indirect: 500)
- (xiv). Benefits of the project: Project shall meet the natural gas demand of industries in the state and in the area around the project. Natural Gas is safe and environment friendly as compared to other fuels. Combustion of natural gas emits negligible or no sulphur dioxide, thereby will lead to clean burning thereby reducing carbon emission. Many industries who are still not connected with the natural gas pipeline network will be able to receive LNG in cryogenic form, regasify in their site and use this clean fuel in their industries. This will indirectly result in reduction of greenhouse gas.

The EAC deliberated upon the issues raised during the Public Hearing/Public Consultation meeting conducted by the Andhra Pradesh Pollution Control Board on 17th December, 2016. The issues were raised regarding compensation, employment, safety aspect, fire fighting livelihood of fisherman, drinking water supply, water/air pollution problem, skill development programme for youth etc. The Committee noted that issues have satisfactorily been responded by the project proponent and incorporated in the final EIA-EMP report.

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

- (i) Construction activity shall be carried out strictly according to the provisions of 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 Andhra Pradesh Coastal Zone Management Authority (APCZMA) vide letter No.34/APCZMA/2017 dated 20.03.2017 shall be complied with.
- (iii) Prior clearance from NBWL shall be obtained in respect of protected area.
- (iv) 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.
- (v) Dredging shall not be carried out during the fish breeding season.
- (vi) Dredging, etc shall be carried out in the confined manner to reduce the impacts on marine environment.
- (vii) Dredged material shall be disposed safely in the designated areas.
- (viii) 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.
- (ix) The ground water shall not be tapped within the CRZ areas by the PP to meet with the water requirement in any case.
- (x) The commitments made during the Public Hearing and recorded in the Minutes shall be complied with letter and spirit. A hard copy of the action taken shall be submitted to the Ministry.
- (xi) 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
- (xii) A detailed marine biodiversity management plan, to the satisfaction of the State Biodiversity Board and the CRZ authority, shall be prepared through the NIOS or any other institute of repute on marine, brackish water and fresh water ecology and biodiversity and implemented. The report shall be based on a study of the impact of the project activities on the intertidal biotopes, corals and coral communities, molluscs, sea grasses, sea weeds, subtidal habitats, fishes, other marine and aquatic micro, macro and mega flora and fauna including benthos, plankton, turtles, birds etc. as also the productivity. The data collection and impact assessment shall be as per standards survey methods.
- (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 inventories the floral composition of the biota of marine and intertidal biotopes and draw up a detailed marine bio diversity conservation management plan based on possible impacts. The management plan shall be submitted also to the State Biodiversity Board and implemented to their satisfaction during the project cycle.
- (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) The Queries and comments raised by the participants during the Public hearing to the project held on 17th December, 2016 will be suitably documented in the form of a management plan drawn up to address to the expressed concerns specially those related to inundation of coast line due to dredging during the 7th berth construction, training and skill development for local youth, LNG leakages and fires, spillages of LNG, Accident risk mitigation for fishermen due to LNG leakages, fishermen interests including safety of nets due to ship movements, impacts of fishing activities near Hope Island, turtle hatcheries, drinking water, electricity and education and training facilities at Hope Island.
- (xx) Pre medical check-up to be carried out on workers at the time of employment and regular medical record to be maintained.
- (xxi) 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.

18.4.2 Common Hazardous Waste Incineration Facility (CHWIF) and Preparation of Alternate Fuel and Raw Material (AFR) for Co-Processing, for Treatment & Disposal of Hazardous Chemical Waste (liquid, solid and semi-solid) at Plot No. 19 D, KIADB Industrial Area, 2nd Phase, Bidadi Industrial Area, Taluk Bidadi, District Ramnagar, Karnataka by M/s V Tech Waste Managements – Environmental Clearance - [F.No. 10-45/2016-IA-III] [IA/KA/MIS/54042/2016]

The project proponent made a presentation and provided the following information to the Committee:-

- (i). M/s. V Tech Waste Managements has proposed Common Hazardous Waste Incineration Facility (CHWIF) 1,000 kg/hr and Preparation of Alternate Fuel and Raw Material (AFR) 200 kg/Hr for Co-Processing at Plot No. 19 D, KIADB industrial area, 2nd Phase, Bidadi Industrial Area, Bidadi Taluka, Ramnagar District, Karnataka.
- (ii). The company is having total land area of 8,080 m² from which 2,660 m² will be utilized for the proposed project.
- (iii). Total water requirement will be 17.0 KLD. Out of 17 KLD; 2.5 KLD, 9 KLD & 5.5 KLD will be used for domestic purpose, Industrial purpose and gardening purpose respectively. Entire water will be sourced from KIADB.

- (iv). Total 9.5 KLD effluent will generate from proposed project. Effluent generated from Scrubbing, Washing & Cooling (7.5 KLD) will be collected & neutralized and then sent to Common Effluent Treatment Plant of M/s. Pai and Pai Chemicals located at Kumbalgodu industrial area, Banglore- Mysore road, for further treatment and disposal. Domestic waste water (2 KLD) will be disposed through septic tank and soak pit.
- (v). The total power requirement for the proposed project is 700 KVA which will be sourced from Bangalore Electricity Supply Company Limited (BESCOM). During emergency purpose D.G. Set of 500 KVA shall be kept.
- (vi). Total 5 types of Solid/hazardous waste will be generated from the proposed project. Used oil (100 lit per annum) will be reused as lubricant in plant machineries or send to authorized re-processors. Discarded Containers/Barrels/plastic (1,500 Nos. per month) will be sent to authorize recycler after decontamination. ETP sludge (3 MT/Month), Incineration ash (60 MT/year) & sludge salt from quencher (10 MT/Month) will be sent to Ramky Enviro Engineers Limited or Mother Earth Environ Tech Private Limited for disposal.
- (vii). Green Belt Development: About total 2,660 m² (33%) area shall be developed as green belt area.
- (viii). ToR was granted to the project vide letter No. F.No.10-45/2016-IA.III dated 14.07.2016. Public Hearing was exempted as per para 7(i) III Stage (3)(i)(b) of EIA Notification, 2006 for preparation of EIA/EMP Report, being site is located in the Notified KIADB Industrial Area.
- (ix). **Employment Details:** Total 50 personnel will be required. Preference will be given to local people on the ground of qualification.
- (x). **Cost for proposed project:** Total capital cost of pollution control measures will be Rs. 100 lacs & recurring cost per annum will be 10 lacs.
- (xi). Benefits of the project The company shall earmarks funds of Rs. 12 lakh i.e. 2.5% of the total project cost will utilize for the CSR activities for the five years after that the company will utilize the fund as per regulations. Company will carry out the CSR activities in the field of Drinking water facility, Health care, agriculture, awareness programme, Rain water harvesting, Education, Plantation, Sports, etc.

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

- (i) The emission standards prescribed by the MoEF&CC under Environment (Protection) Act for incinerator, lead recovery unit, e-waste, solvent recycling, used oil recycling unit etc shall be strictly followed. At no time, the emission levels shall go beyond the prescribed standards. In the event of failure of any pollution control system adopted by the unit, the respective unit shall not be restarted until the control measures are rectified to achieve the desired efficiency. Stack emissions shall be monitored regularly.
- (ii) Air pollution control device viz. gas quencher; treatment with mixture of hydrated lime and activated powder for adsorption of partial acidity and VOCs (if any); bagfilter/ESP for removal of particulate matter; ventury scrubber followed by packed bed scrubber with caustic circulation to neutralize the acidic vapours in flue gas; and demister column for arresting water carry over shall be provided to the incinerator. Online pollutant monitoring shall be provided as per CPCB guidelines for monitoring particulate matter, SO₂, NO_x and CO from the incinerator stack. The periodical monitoring of Dioxins and Furans in the Stack emissions shall be carried out.

- (iii) As proposed, scrubber shall be provided to the oil fired boiler to control particulate emissions within permissible limit. The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/GPCB guidelines.
- (iv) Bagfilter shall be provided at Crushing, Dismantling, Shredding, Separation units of the e-waste management facility.
- (v) Multi cyclone, bagfilter followed by scrubber along with stack of adequate height shall be provided to Smelting (in Rotary Furnace) and Refining (in Refining Pot) to control process emissions.
- (vi) Incinerator shall be designed as per CPCB guidelines. Energy shall be recovered from incinerator.
- (vii) Sufficient number of Piezometer wells shall be installed in and around the project site to monitor the ground water quality in consultation with the State Pollution Control Board / CPCB. Trend analysis of ground water quality shall be carried out each season and information shall be submitted to the SPCB and the Regional Office of MoEF&CC.
- (viii) Ambient air quality monitoring shall be carried out in and around the landfill site at up wind and downwind locations.
- (ix) The depth of the land fill site shall be decided based on the ground water table at the site.
- (x) Environmental Monitoring Programme shall be implemented as per EIA report and guidelines prescribed by CPCB for hazardous waste facilities. Periodical ground water/soil monitoring to check the contamination in and around the site shall be carried out. Regular monitoring of Volatile Organic Compounds (VOCs) should be carried out.
- (xi) All the solvent storage tanks should be connected with vent condensers with chilled brine circulation.
- (xii) The Company shall ensure proper handling of all spillages by introducing spill control procedures for various chemicals.
- (xiii) Total fresh water requirement from KIADB should not exceed 17 KLD.
- (xiv) All leachates arising from premises should be incineration/ Forced evaporation/spraying on landfill.
- (xv) Toxicity Characteristic Leaching Procedure (TCLP) test to be performed on leachates.
- (xvi) Effluent shall be treated in the effluent treatment plant followed by RO to achieve zero liquid discharge. Treated effluent shall be recycled/reused for cooling tower make up, plantation and landfill. No effluent shall be discharged outside the plant premises.
- (xvii) The primary treated effluents shall be sent for final treatment to authorized vendors/CETP's only with consent of the Board also to treat effluents from the project.
- (xviii) Real Time Automatic Monitoring facilities should be installed on the stack and on the outlet of the treatment plant as per the guidelines of the Central Pollution Control Board.
- (xix) No non hazardous wastes, as defined under the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 shall be handled in the premises. Hazardous waste shall be sent to an authorized vendor only.
- (xx) Preparation of Alternate Fuel and Raw material for co-processing should be strictly as per the directives as under the HWM Rules, 2016 and the Central Pollution Control Board after trial runs as prescribed.
- (xxi) Gas generated in the Land fill should be properly collected, monitored and flared.
- (xxii) Project Proponent shall develop green belt, as committed. At least 15 m thick greenbelt shall be developed in the periphery of hazardous waste facility.

- (xxiii) Project should ensure that the site is properly cordoned off from general movement and no unauthorized person or goods permitted to enter the premises. Necessary security provision should be made as a condition in the Authorization under the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 prevent unwanted access.
- (xxiv) Emergency plan shall be drawn in consultation with SPCB/CPCB and implemented in order to minimize the hazards to human health or environment from fires, explosion or any unplanned sudden or non sudden release of hazardous waste or hazardous waste constituents to air, soil or surface water.
- (xxv) Pre medical check-up to be carried out on workers at the time of employment and regular medical record to be maintained.
- (xxvi) Rain water runoff from the landfill area and other hazardous waste management area shall be collected and treated in the effluent treatment plant.

18.4.3 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 - Environmental Clearance – [F.No.10-9/2016-IA-III] [IA/MH/MIS/33865/2015]

The project proponent made a presentation and provided the following information to the Committee:-

- (i). M/s Paithan Mega Food Park Pvt. Ltd Proposed Common Effluent Treatment Plant at Paithan Mega Food Park, Post Wahegaon and Dhangaon, Taluka Pathan, District Aurangabad, Maharashtra.
- (ii). The area of Food Park is 396441 m² and area of CETP is - 2240 m².
- (iii). Aurangabad is located at 40 km from site. Aurangabad airport is at a distance of 50 km from site and Mumbai airport is at 350 km from site. Aurangabad Railway station is located at 45 km from site. Mumbai seaport is located at 350 km.
- (iv). CETP comprises of following units:
 1. Bar Screen, 2. Oil & Grease Trap, 3. Equalization cum Neutralization tank, 4. Dissolved Air Flootation, 5. Bio Reactor/Aerobic Treatment, 6. Secondary Clarifier, 7. Collection Tank, 8. Pressure Sand Filter, 9. Activated Carbon Filter, 10. Garden Water Tank, 11. Sludge Thickener, 12. Filter Press.
- (v). There is no Eco Sensitive Zone. However the project site is 3.24 km towards South from Jaikwadi Bird Sanctuary.
- (vi). Treated water will be used for Green belt.
- (vii). ETP Sludge will be 350 kg/day. It will be dried and used as manure after composting.
- (viii). **Green Belt** will be develop on 115273 SQM area which is 33% of Project area
- (ix). **Employment Potential:** 13 workers for CETP, 500 (own employee) and 3500 (employee of individual units)
- (x). **Cost of the project:** 2.0 Crores
- (xi). **Benefits of the project:** Employment Generation for local villagers. Direct economical benefit for farmers.

The project proponents requested to be exempted from NBWL clearance. The committee did not accept the request. After detailed deliberations, Committee sought following additional information:

- (i) NBWL clearance is required for the project.
- (ii) Specify proposals for which EC is sought. Is the application only for a CETP or also for the Mega Food Park. The covering letter dated 06.04.2017 addressed to the MoEF&CC indicates the proposal as being related to development of Mega Food Park with common ETP/STP the EIA is also for proposed Mega Food Park with common ETP/STP whereas the presentation before the Committee and the Public hearing is for the CETP/STP only.
- (iii) 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.
- (iv) Submit an irrigation management plan for use of effluents in irrigation. If treated effluents are to be disposed in inland surface waters then the disposal details along with the revised unit operations for treatment. Land disposal allows a BOD of 100 mg/L whereas disposal in inland surface waters may require 30 mg/L.
- (v) Data should be checked for uniformity. Water requirement have been differently mentioned as 2000 CMD and 1000 CMD at places. The solid waste generation is addressed as 81770 kg/day in the public hearing which is enormously high.
- (vi) The status of availability of 2000 m³/day of water with the MSIDC and whether the MSIDC has a clearance from the CGWA for abstracting and supplying this water.
- (vii) Whether the E.C. is sought only for the Central Processing Facility or for the primary processing centres also.

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

18.4.4 Enhancement of capacity change in configuration of the incinerator installed at Common Hazardous Waste Treatment, Storage and Disposal Facilities at Bharuch by M/s Bharuch Enviro Infrastructure Limited (BEIL) - Environmental Clearance – [F.No. 10-10/2014-IA-III] [IA/GJ/MIS/42857/2016]

The project proponent made a presentation and provided the following information to the Committee:-

- (i) The present proposal is for the enhancement in capacity of incinerator with thermal capacity of 12 million kcal/hour. Such change in configuration of phase-II incinerator from one of 25 million kcal/hour capacity as per the EC of Phase-II.
- (ii) The proposed enhancement of capacity change in configuration of incinerator project falls under Category "A" as per EIA Notification 2006. The Project is of activity 7(d) listed in EIA Notification dated 14th September, 2006, under Common Hazardous Waste Treatment, Storage and Disposal Facility (TSDF).
- (iii) The project was considered by the Expert Appraisal Committee (Infra-2) in its 3rd Meeting on dated 23rd Feb 2016. Accordingly TOR was approved vide letter no.10-10/2014-IA.III dated 26th March, 2016. Public hearing was exempted as per para 7(i) III Stage (3)(i)(b) of EIA Notification, 2006 for preparation of EIA/EMP Report, being site is located in the Notified GIDC industrial area, Ankleshwar.
- (iv) Power Demand: Existing power consumption is 1700 KVA & Proposed requirement 500KVA additional Source from Dakshin Gujarat Vin Co Ltd (DGVCL). In case of power failure-2 DG Sets (975 KVA capacity each) & 1 D.G. set (600 KVA).
- (v) Fuel-Natural Gas @ 300 m³/hrs to be sourced from Gujarat Gas Ltd.
- (vi) Water-Maximum water consumption will be 690 KLD one time and 445 KLD for industrial and domestic purpose that is available from GIDC supply.
- (vii) Cost of the project is Rs. 32.00 crore.

- (viii) Man Power-During Construction phase, the labors and workers will be hired from nearby areas. Construction phase: 100 workman, operation phase: 30 workman.
- (ix) Green belt is developed in total 50514.29 sqm (length: 3024 mtrs and average 15 mtrs. Width, and around 5000 (250 length x 20 width) sqm Near Phase-III) to mitigate the impacts on the overall air quality at the site.

The Committee also deliberated on the certified compliance report letter No. 5-28/2008(ENV)/091, dated 01.03.2017 issued by the MoEF&CC's Regional Office, Bhopal stating satisfactory compliance of environmental conditions stipulated in earlier EC issued by the Ministry.

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

- (i) The emission standards prescribed by the MoEF&CC under Environment (Protection) Act for incinerator, lead recovery unit, e-waste, solvent recycling, used oil recycling unit etc shall be strictly followed. At no time, the emission levels shall go beyond the prescribed standards. In the event of failure of any pollution control system adopted by the unit, the respective unit shall not be restarted until the control measures are rectified to achieve the desired efficiency. Stack emissions shall be monitored regularly.
- (ii) Air pollution control device viz. gas quencher; treatment with mixture of hydrated lime and activated powder for adsorption of partial acidity and VOCs (if any); bagfilter/ESP for removal of particulate matter; ventury scrubber followed by packed bed scrubber with caustic circulation to neutralize the acidic vapours in flue gas; and demister column for arresting water carry over shall be provided to the incinerator. Online pollutant monitoring shall be provided as per CPCB guidelines for monitoring particulate matter, SO₂, NO_x and CO from the incinerator stack. The periodical monitoring of Dioxins and Furans in the Stack emissions shall be carried out.
- (iii) As proposed, scrubber shall be provided to the oil fired boiler to control particulate emissions within permissible limit. The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/GPCB guidelines.
- (iv) Bagfilter shall be provided at Crushing, Dismantling, Shredding, Separation units of the e-waste management facility.
- (v) Multi cyclone, bagfilter followed by scrubber along with stack of adequate height shall be provided to Smelting (in Rotary Furnace) and Refining (in Refining Pot) to control process emissions.
- (vi) Incinerator shall be designed as per CPCB guidelines. Energy shall be recovered from incinerator.
- (vii) Sufficient number of Piezometer wells shall be installed in and around the project site to monitor the ground water quality in consultation with the State Pollution Control Board / CPCB. Trend analysis of ground water quality shall be carried out each season and information shall be submitted to the SPCB and the Regional Office of MoEF&CC.
- (viii) Ambient air quality monitoring shall be carried out in and around the landfill site at up wind and downwind locations.
- (ix) The depth of the land fill site shall be decided based on the ground water table at the site.
- (x) Environmental Monitoring Programme shall be implemented as per EIA report and guidelines prescribed by CPCB for hazardous waste facilities. Periodical ground

water/soil monitoring to check the contamination in and around the site shall be carried out. Regular monitoring of Volatile Organic Compounds (VOCs) should be carried out.

- (xi) All the solvent storage tanks should be connected with vent condensers with chilled brine circulation.
- (xii) The Company shall ensure proper handling of all spillages by introducing spill control procedures for various chemicals.
- (xiii) Total fresh water requirement from GIDC should not exceed 445 KLD.
- (xiv) All leachates arising from premises should be incineration/ Forced evaporation/spraying on landfill.
- (xv) MEE residue should be sent to the incinerator and condensate to the CETP for final treatment. The CETP's should have consent of the Board to treat such effluents.
- (xvi) Effluent shall be treated in the effluent treatment plant followed by RO to achieve zero liquid discharge. Treated effluent shall be recycled/reused for cooling tower make up, plantation and landfill. No effluent shall be discharged outside the plant premises.
- (xvii) The primary treated effluents shall be sent for final treatment to authorized vendors/CETP's only with consent of the Board also to treat effluents from the project.
- (xviii) Real Time Automatic Monitoring facilities should be installed on the stack and on the outlet of the treatment plant as per the guidelines of the Central Pollution Control Board.
- (xix) Ensure compliance to the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and guidelines developed by the CPCB.
- (xx) No non hazardous wastes, as defined under the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 shall be handled in the premises. Hazardous waste shall be sent to an authorized vendor only.
- (xxi) Preparation of Alternate Fuel and Raw material for co-processing should be strictly as per the directives as under the HWM Rules, 2016 and the Central Pollution Control Board after trial runs as prescribed.
- (xxii) Gas generated in the Land fill should be properly collected, monitored and flared.
- (xxiii) Project Proponent shall develop green belt, as committed. At least 15 m thick greenbelt shall be developed in the periphery of hazardous waste facility.
- (xxiv) Project should ensure that the site is properly cordoned off from general movement and no unauthorized person or goods permitted to enter the premises. Necessary security provision should be made as a condition in the Authorization under the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 prevent unwanted access.
- (xxv) Emergency plan shall be drawn in consultation with SPCB/CPCB and implemented in order to minimize the hazards to human health or environment from fires, explosion or any unplanned sudden or non sudden release of hazardous waste or hazardous waste constituents to air, soil or surface water.
- (xxvi) Rain water runoff from the landfill area and other hazardous waste management area shall be collected and treated in the effluent treatment plant.
- (xxvii) Pre medical check-up to be carried out on workers at the time of employment and regular medical record to be maintained.

18.4.05 “Alta Monte” Expansion of Proposed SRA scheme village Malad, Tehsil Borivali, Mumbai, Maharashtra by M/s Omkar Realtor and Developers Ltd. – Further consideration for Environmental Clearance (IA/MH/NCP/61360/2014; 21-22/2017-IA-III)

The project was earlier considered in the 14th meeting of Expert Appraisal Committee held on 13th February, 2017. The Committee noted that Slum Rehabilitation Authority vide letter no SRA/ENG/1759/PN/PL & STGL/LOI dated 5.12.2016 has given approval for built-up area of 2,19,632.27 m². However, as per Form1, EC is sought for 6,40,355.23 m² built up area , which is higher than the approval granted by SRA. After detailed deliberation, the Committee sought following additional information :

- (i) PP should clarify the difference in the built-up area as mentioned in the form-1 vis a vis approval granted by SRA.
- (ii) Details of the NGT court cases along with the order of the copy.
- (iii) Copy of the EIA report to be uploaded on the website.
- (iv) Certified compliance report on the environmental conditions stipulated in the existing EC from the Regional Office, Nagpur.
- (v) The Committee also suggested them to provide adequate parking space to the flat owner.

The Project Proponent vide letter dated 29.04.2017 submitted the additional information. Additional information is also available on the website. During the deliberation, the EAC noted that matter is still sub-judice in the Hon'ble National Green Tribunal, Pune. The Committee informed the proponent that it may not be possible to consider proposal unless the NGT resolves the issues. Accordingly, the proposal was deferred.

18.4.06 Expansion of Residential, Retail, IT & Commercial project on plot bearing CTS. Nos. 117A, 117A/1, 117B &117 C Village Tungwa, Saki Vihar Road, Powai, Mumbai by M/s. Larsen & Toubro Realty Ltd. – Further consideration for Environmental Clearance IA/MH/NCP/63117/2017; 21-104/2016-IA-III

The project was earlier considered in the 15th meeting of Expert Appraisal Committee held on 12th-14th April, 2017. The Committee deliberated upon the certified compliance report issued by the MoEF&CC's Regional Office, Nagpur vide their letter no 18-C-19/2013(SEAC)/1465 dated 09.03.2017. Regional Office reported 6 non complied points such as PA did not obtain consent to operate from MPCB before occupation of the buildings, PA submitted only 2 six monthly compliance reports since the grant of EC, latest compliance report not uploaded to the website. Criteria pollutant levels are not being displayed near the main gate of the company. After detailed deliberation, the Committee sought some additional information.

Now, the Project Proponent vide letter dated 04.05.2017 submitted the additional information. Additional information is also available on the website.

The EAC, on being satisfied with the submissions of the project proponent in response to its earlier observations, 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:

PART A – SPECIFIC CONDITIONS:

I. Construction Phase

- (i) 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.
- (ii) The natural drain system should be maintained for ensuring unrestricted flow of water. No construction shall be allowed to obstruct the natural drainage through the site, on wetland and water bodies. Check dams, bio-swales, landscape, and other sustainable urban drainage systems (SUDS) are allowed for maintaining the drainage pattern and to harvest rain water. Buildings shall be designed to follow the natural topography as much as possible. Minimum cutting and filling should be done.
- (iii) Construction site shall be adequately barricaded before the construction begins. Dust, smoke & other air pollution prevention measures shall be provided for the building as well as the site. These measures shall include screens for the building under construction, continuous dust/ wind breaking walls all around the site (at least 3 meter height). Plastic/tarpaulin sheet covers shall be provided for vehicles bringing in sand, cement, murrum and other construction materials prone to causing dust pollution at the site as well as taking out debris from the site. Sand, murrum, loose soil, cement, stored on site shall be covered adequately so as to prevent dust pollution. Wet jet shall be provided for grinding and stone cutting. Unpaved surfaces and loose soil shall be adequately sprinkled with water to suppress dust.
- (iv) All construction and demolition debris shall be stored at the site (and not dumped on the roads or open spaces outside) before they are properly disposed. All demolition and construction waste shall be managed as per the provisions of the Construction and Demolition Waste Rules, 2016. All workers working at the construction site and involved in loading, unloading, carriage of construction material and construction debris or working in any area with dust pollution shall be provided with dust mask.
- (v) At least 20% of the open spaces as required by the local building bye-laws shall be pervious. Use of Grass pavers, paver blocks with at least 50% opening, landscape etc. would be considered as pervious surface.
- (vi) Compliance with the Energy Conservation Building Code (ECBC) of Bureau of Energy Efficiency shall be ensured. Buildings in the States which have notified their own ECBC, shall comply with the State ECBC. Outdoor and common area lighting shall be LED. Concept of passive solar design that minimize energy consumption in buildings by using design elements, such as building orientation, landscaping, efficient building envelope, appropriate fenestration, increased day lighting design and thermal mass etc. shall be incorporated in the building design. Wall, window, and roof u-values shall be as per ECBC specifications.
- (vii) Use of water saving devices/ fixtures (viz. low flow flushing systems; use of low flow faucets tap aerators etc) for water conservation shall be incorporated in the building plan.
- (viii) Installation of dual pipe plumbing for supplying fresh water for drinking, cooking and bathing etc and other for supply of recycled water for flushing, landscape irrigation, car washing, thermal cooling, conditioning etc. shall be done.
- (ix) Separation of grey and black water should be done by the use of dual plumbing system. In case of single stack system separate recirculation lines for flushing by giving dual plumbing system be done.
- (x) Sewage shall be treated in the STP based on Moving Bed Biofilm Reactor (MBBR) Technology. The treated effluent from STP shall be recycled/re-used for flushing, horticulture & DG cooling.

- (xi) 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. As proposed, Rooftop rainwater of buildings shall be collected in 4 RWH tanks of total 454 KL capacity besides one recharge pit for harvesting after filtration as per CGWB guidelines.
- (xii) 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. As proposed, 459 m² of 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.
- (xiii) Solar based electric power shall be provided to each unit for at least two bulbs/light and one fan. As proposed, central lighting and street lighting shall also be based on solar power.
- (xiv) A First Aid Room shall be provided in the project both during construction and operations of the project.
- (xv) Topsoil should be stripped to a depth of 20 cm from the areas proposed for buildings, roads, paved areas, and external services. It should be stockpiled appropriately in designated areas and reapplied during plantation of the proposed vegetation on site.
- (xvi) Disposal of muck during construction phase shall not create any adverse effect on the neighboring communities and be disposed taking the necessary precautions for general safety and health aspects of people, only in approved sites with the approval of competent authority.
- (xvii) The diesel generator sets to be used during construction phase shall be low sulphur diesel type and shall conform to Environmental (Protection) prescribed for air and noise emission standards.
- (xviii) Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.
- (xix) As proposed, no ground water shall be used during construction/ operation phase of the project.
- (xx) Approval of the CGWA require before any dewatering for basements.
- (xxi) 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.
- (xxii) Any hazardous waste generated during construction phase, shall be disposed off as per applicable rules and norms with necessary approvals of the State Pollution Control Board.
- (xxiii) Vehicles hired for bringing construction material to the site should be in good condition and should have a pollution check certificate and should conform to applicable air and noise emission standards be operated only during non-peak hours.
- (xxiv) Ambient noise levels shall conform to residential standards both during day and night as per Noise Pollution (Control and Regulation) Rules, 2000. Incremental pollution loads on the ambient air and noise quality shall be closely monitored during construction phase. Adequate measures shall be made to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by CPCB / SPCB.
- (xxv) Use of environment friendly materials in bricks, blocks and other construction materials, shall be required for at least 20% of the construction material quantity. These include Fly Ash bricks, hollow bricks, AACs, Fly Ash Lime Gypsum blocks, Compressed earth

blocks, and other environment friendly materials. Fly ash should be used as building material in the construction as per the provision of Fly Ash Notification of September, 1999 and amended as on 27th August, 2003 and 25th January, 2016. Ready mixed concrete must be used in building construction.

- (xxvi) A comprehensive mobility plan, as per MoUD best practices guidelines (URDPFI), shall be prepared to include motorized, non-motorized, public, and private networks. Road should be designed with due consideration for environment, and safety of users. The road system can be designed with these basic criteria.
- Hierarchy of roads with proper segregation of vehicular and pedestrian traffic.
 - Traffic calming measures
 - Proper design of entry and exit points.
 - Parking norms as per local regulation

II. Operational Phase

- (i) The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution. Low sulphur diesel shall be used. The location of the DG set and exhaust pipe height shall be as per the provisions of the Central Pollution Control Board (CPCB) norms.
- (ii) For indoor air quality the ventilation provisions as per National Building Code of India.
- (iii) Fresh water requirement from Municipal Water Supply shall not exceed 385 m³/day.
- (iv) The quantity of fresh water usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance as projected by the project proponent. The record shall be submitted to the Regional Office, MoEF&CC along with six monthly Monitoring reports.
- (v) The installation of the Sewage Treatment Plant (STP) shall be certified by an independent expert and a report in this regard shall be submitted to the Ministry before the project is commissioned for operation. Periodical monitoring of water quality of treated sewage shall be conducted. Necessary measures should be made to mitigate the odour problem from STP.
- (vi) No sewage or untreated effluent water would be discharged through storm water drains.
- (vii) Sludge from the onsite sewage treatment, including septic tanks, shall be collected, conveyed and disposed as per the Ministry of Urban Development, Central Public Health and Environmental Engineering Organization (CPHEEO) Manual on Sewerage and Sewage Treatment Systems, 2013.
- (viii) The provisions of the Solid Waste (Management) Rules, 2016, e-Waste (Management) Rules, 2016, the Construction and Demolition Waste Management Rules, 2016 and the Plastics Waste (Management) Rules, 2016 shall be followed.
- (ix) Solar power shall be used for lighting in the apartment to reduce the power load on grid. Separate electric meter shall be installed for solar power. Solar water heaters shall be used to meet hot water demand, as far as possible.
- (x) Energy conservation measures like installation of CFLs/ LED for the lighting the area outside the building should be integral part of the project design and should be in place before project commissioning. Used CFLs, TFL and LED shall be properly collected and disposed off/sent for recycling as per the prevailing guidelines/rules of the regulatory authority to avoid mercury contamination.
- (xi) A minimum of 1 tree for every 80 sq.mt. 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.

- (xii) An assessment of the cumulative impact of all redevelopment and increased inhabitation being carried out or proposed to be carried out by the project, shall be made for traffic densities and parking capabilities in a 05 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 implemented to the satisfaction of the State Urban Development and Transport Department.
- (xiii) An environmental management plan (EMP) shall be prepared and implemented to ensure compliance with the environmental conditions specified above. 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, 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.

18.4.07 Slum Rehabilitation Scheme on plot bearing C.T.S No. 1 (pt) of village Ghatkopar, Hanuman Nagar, Tal. Kurla, Ghatkopar (W), Mumbai.- Further consideration for Environmental Clearance (IA/MH/MIS/61322/2014;21-194/2014-IA.III)

The project proponent made a presentation and provided the following information to the Committee:-

- (i). The present proposal is for development of 'Slum Rehabilitation Scheme' on plot bearing C.T.S no. 1 (pt) of village Ghatkopar, Hanuman Nagar, Ghatkopar (w), Mumbai.
- (ii). The total area of the slum plot is 64,219.67 sqm. The total construction area of the project is 510205.02 sqm. The proposed FSI area is 190900.08 sqm and non FSI area is 319304.94 sqm. The proposed project comprises of 6 rehab buildings and 2 sale buildings.
- (iii). The total 6 nos. of rehab buildings comprises of Building With G + 23 Floors, Building no. 1 with 2LG+ G+ 18 Floors, Building no. 2,3 with 3LG+ G+ 23 Floors ,Building no. 4 (A,B,C) with 3LG+ G+23Floors, Building no. 4 (D, E, F) with 3LG+ G+ 22 Floors and Building no. 5 with 2 LG+ Gr +14 (pt)Floors.
- (iv). The sale building no.1 comprises of Wing A & B with P4 to P7 + St+ 25 Floors, Wing C to F with P6 to P7 + St+ 25 Floors, Wing H,J,L with Gr + P1 to P7 + St + 25 Floors and Wing K,M with Gr + P1 to P7 + St + 24 Floors. The sale building no.2 consists of Wing P to S with B+ Gr + P1 to P3 + St + 25 Floors. The maximum height of the rehab building is 69.75 m and for sale building is 106.35 m.
- (v). The rehabilitation components of scheme will consists of 1431 nos. of residential tenements, 13 nos. of residential /commercial tenements, 37 nos. of shops, 1224 nos. of PAP, 07 nos. existing amenities and 28 nos. of Balwadis. The sale components of scheme will consists of 2675 nos. of residential units and 36 nos. of commercial (shops).
- (vi). The proposed RG area is 4254.42 sqm. Total 4-wheelers parking provided will be 442 nos. for rehab and 1469 nos. for sale. The two-wheelers parking are proposed additional parking spaces of 141 nos. in Rehab.
- (vii). The proposed infrastructure works includes water supply from Municipal Corporation of Greater Mumbai, electric supply from Reliance Energy, sewage treatment through MBBR Technology, storm water drainage system, rain water harvesting system, fire fighting,

energy conservation measures, adequate parking space, solid waste management and communication networks etc will be provided.

- (viii). The total water requirement during operation phase of the project will be 3645 KLD out of which fresh water requirement is 2409 KLD and recycled water requirement is 1236 KLD. The fresh water supply for domestic purpose will depend on the local municipal supplies i.e. Municipal Corporation of Greater Mumbai water supply whereas treated water from sewage treatment plant will be use for flushing and gardening purpose. The arrangement of rainwater harvesting system will be provided which will reduce the demand of fresh water requirement.
- (ix). The total wastewater generated from the project is estimated 3113 KLD. The waste generated will be treated in sewage treatment plant based on MBBR Technology. 6 no. of STP's will be installed. Total 3 STP's for Rehab of capacity (1 x 580 KLD, 1 x 980 KLD and 1 x 85 KLD) and Total 3 STP's for sale of capacity (1 x 700 KLD , 1 x 610 KLD and 1 x 245 KLD). The treated water from sewage treatment plant will be reclaimed and used for flushing and gardening purpose that will result in minimum consumption of fresh water.
- (x). The excess treated sewage shall be used for construction activities and BMC gardens upon the receipt of the approval from the competent activities and BMC gardens upon the receipt of approval from the competent authority, the remaining treated sewage shall be discharge in the municipal sewer line.
- (xi). The power requirement during operation period will be about 25959.61 KW for connected load and 18443.99 KW for maximum demand load. The power supply will be from Reliance Energy. There will be also provision for DG set in case of emergency. Total 2 no. of DG sets 630KVA and 1 DG set of capacity 125 for Rehab and 2 DG set of 600 KVA and 1 DG set of 630 KVA and 2 DG sets of 1010 KVA for Sale will be provided.
- (xii). The total solid waste generated during operation phase will be 13411 kg/day. The biodegradable waste will be 8030 kg/day whereas non-biodegradable waste will be 5381 kg/day. The biodegradable waste will be processed in the organic waste converter and manure generated shall be used for gardening purposes and the non-biodegradable waste will be handed over to authorized recycler.
- (xiii). "M/s. Lake View Developers "shall follow safety regulations, maintain good housekeeping and judiciously operate pollution control facilities to meet the prescribed norms and shall promote environment friendliness.
- (xiv). The estimated project cost of the project is Rs. 1050 Crores.

The project was earlier considered in the 13th meeting of Expert Appraisal Committee held on 23rd – 25th January, 2017. The Committee deliberated upon the proposal and noted that as per Slum Rehabilitation Authority letter dated 25th January, 2012, approved total built-up area is mentioned as 1,97682.67 sqm. However, as per presentation made before EAC the built up area of proposed project is 510205.02 sqm. After detailed deliberation, the Committee sought additional information.

The Project Proponent vide letter dated 27.02.2017 submitted the additional information. Additional information is also available on the website.

The EAC, on being satisfied with the submissions of the project proponent in response to its earlier observations, 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:

PART A – SPECIFIC CONDITIONS:

I. Construction Phase

- (i) 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.
- (ii) The natural drain system should be maintained for ensuring unrestricted flow of water. No construction shall be allowed to obstruct the natural drainage through the site, on wetland and water bodies. Check dams, bio-swales, landscape, and other sustainable urban drainage systems (SUDS) are allowed for maintaining the drainage pattern and to harvest rain water. Buildings shall be designed to follow the natural topography as much as possible. Minimum cutting and filling should be done.
- (iii) Construction site shall be adequately barricaded before the construction begins. Dust, smoke & other air pollution prevention measures shall be provided for the building as well as the site. These measures shall include screens for the building under construction, continuous dust/ wind breaking walls all around the site (at least 3 meter height). Plastic/tarpaulin sheet covers shall be provided for vehicles bringing in sand, cement, murrum and other construction materials prone to causing dust pollution at the site as well as taking out debris from the site. Sand, murrum, loose soil, cement, stored on site shall be covered adequately so as to prevent dust pollution. Wet jet shall be provided for grinding and stone cutting. Unpaved surfaces and loose soil shall be adequately sprinkled with water to suppress dust.
- (iv) All construction and demolition debris shall be stored at the site (and not dumped on the roads or open spaces outside) before they are properly disposed. All demolition and construction waste shall be managed as per the provisions of the Construction and Demolition Waste Rules, 2016. All workers working at the construction site and involved in loading, unloading, carriage of construction material and construction debris or working in any area with dust pollution shall be provided with dust mask.
- (v) At least 20% of the open spaces as required by the local building bye-laws shall be pervious. Use of Grass pavers, paver blocks with at least 50% opening, landscape etc. would be considered as pervious surface.
- (vi) Compliance with the Energy Conservation Building Code (ECBC) of Bureau of Energy Efficiency shall be ensured. Buildings in the States which have notified their own ECBC, shall comply with the State ECBC. Outdoor and common area lighting shall be LED. Concept of passive solar design that minimize energy consumption in buildings by using design elements, such as building orientation, landscaping, efficient building envelope, appropriate fenestration, increased day lighting design and thermal mass etc. shall be incorporated in the building design. Wall, window, and roof u-values shall be as per ECBC specifications.
- (vii) Use of water saving devices/ fixtures (viz. low flow flushing systems; use of low flow faucets tap aerators etc) for water conservation shall be incorporated in the building plan.
- (viii) Installation of dual pipe plumbing for supplying fresh water for drinking, cooking and bathing etc and other for supply of recycled water for flushing, landscape irrigation, car washing, thermal cooling, conditioning etc. shall be done.
- (ix) Separation of grey and black water should be done by the use of dual plumbing system. In case of single stack system separate recirculation lines for flushing by giving dual plumbing system be done.

- (x) Sewage shall be treated in the STP based on Moving Bed Biofilm Reactor (MBBR) Technology. The treated effluent from STP shall be recycled/re-used for flushing, horticulture & DG cooling.
- (xi) 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. As proposed, 15 nos. of RWH tank of total capacity 575 cum shall be provided for Rehab and 14 nos. of RWH tank of total capacity 700 cum shall be provided for Sale building as per CGWB guidelines.
- (xii) 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. As proposed, 90 m² area each for rehab building and sale building shall be provided for OWC. The inert waste from group housing project will be sent to dumping site.
- (xiii) Solar based electric power shall be provided to each unit for at least two bulbs/light and one fan. As proposed, central lighting and street lighting shall also be based on solar power.
- (xiv) A First Aid Room shall be provided in the project both during construction and operations of the project.
- (xv) Topsoil should be stripped to a depth of 20 cm from the areas proposed for buildings, roads, paved areas, and external services. It should be stockpiled appropriately in designated areas and reapplied during plantation of the proposed vegetation on site.
- (xvi) Disposal of muck during construction phase shall not create any adverse effect on the neighboring communities and be disposed taking the necessary precautions for general safety and health aspects of people, only in approved sites with the approval of competent authority.
- (xvii) The diesel generator sets to be used during construction phase shall be low sulphur diesel type and shall conform to Environmental (Protection) prescribed for air and noise emission standards.
- (xviii) Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.
- (xix) As proposed, no ground water shall be used during construction/ operation phase of the project.
- (xx) Approval of the CGWA require before any dewatering for basements.
- (xxi) 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.
- (xxii) Any hazardous waste generated during construction phase, shall be disposed off as per applicable rules and norms with necessary approvals of the State Pollution Control Board.
- (xxiii) Vehicles hired for bringing construction material to the site should be in good condition and should have a pollution check certificate and should conform to applicable air and noise emission standards be operated only during non-peak hours.
- (xxiv) Ambient noise levels shall conform to residential standards both during day and night as per Noise Pollution (Control and Regulation) Rules, 2000. Incremental pollution loads on the ambient air and noise quality shall be closely monitored during construction phase. Adequate measures shall be made to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by CPCB / SPCB.

- (xxv) Use of environment friendly materials in bricks, blocks and other construction materials, shall be required for at least 20% of the construction material quantity. These include Fly Ash bricks, hollow bricks, AACs, Fly Ash Lime Gypsum blocks, Compressed earth blocks, and other environment friendly materials. Fly ash should be used as building material in the construction as per the provision of Fly Ash Notification of September, 1999 and amended as on 27th August, 2003 and 25th January, 2016. Ready mixed concrete must be used in building construction.
- (xxvi) A comprehensive mobility plan, as per MoUD best practices guidelines (URDPFI), shall be prepared to include motorized, non-motorized, public, and private networks. Road should be designed with due consideration for environment, and safety of users. The road system can be designed with these basic criteria.
- Hierarchy of roads with proper segregation of vehicular and pedestrian traffic.
 - Traffic calming measures
 - Proper design of entry and exit points.
 - Parking norms as per local regulation

II. Operational Phase

- (i) The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution. Low sulphur diesel shall be used. The location of the DG set and exhaust pipe height shall be as per the provisions of the Central Pollution Control Board (CPCB) norms.
- (ii) For indoor air quality the ventilation provisions as per National Building Code of India.
- (iii) Fresh water requirement from Municipal Corporation of Greater Mumbai water supply shall not exceed 2409 m³/day.
- (iv) The quantity of fresh water usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance as projected by the project proponent. The record shall be submitted to the Regional Office, MoEF&CC along with six monthly Monitoring reports.
- (v) The installation of the Sewage Treatment Plant (STP) shall be certified by an independent expert and a report in this regard shall be submitted to the Ministry before the project is commissioned for operation. Periodical monitoring of water quality of treated sewage shall be conducted. Necessary measures should be made to mitigate the odour problem from STP.
- (vi) No sewage or untreated effluent water would be discharged through storm water drains.
- (vii) Sludge from the onsite sewage treatment, including septic tanks, shall be collected, conveyed and disposed as per the Ministry of Urban Development, Central Public Health and Environmental Engineering Organization (CPHEEO) Manual on Sewerage and Sewage Treatment Systems, 2013.
- (viii) The provisions of the Solid Waste (Management) Rules, 2016, e-Waste (Management) Rules, 2016, the Construction and Demolition Waste Management Rules, 2016 and the Plastics Waste (Management) Rules, 2016 shall be followed.
- (ix) Solar power shall be used for lighting in the apartment to reduce the power load on grid. Separate electric meter shall be installed for solar power. Solar water heaters shall be used to meet hot water demand, as far as possible.
- (x) Energy conservation measures like installation of CFLs/ LED for the lighting the area outside the building should be integral part of the project design and should be in place before project commissioning. Used CFLs, TFL and LED shall be properly collected and disposed off/sent for recycling as per the prevailing guidelines/rules of the regulatory authority to avoid mercury contamination.

- (xi) 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. As proposed RG area is 4254.42 sqm.
- (xii) An assessment of the cumulative impact of all redevelopment and increased inhabitation being carried out or proposed to be carried out by the project, shall be made for traffic densities and parking capabilities in a 05 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 implemented to the satisfaction of the State Urban Development and Transport Department.
- (xiii) An environmental management plan (EMP) shall be prepared and implemented to ensure compliance with the environmental conditions specified above. 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, 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.

18.4.08 Area Development of Multimodal Logistic Park & Industrial Park for Smart Industrial Port City (SIPC) in Paradip Port & Debottlenecking efficiency by Mechanization of existing operational berths in Port Master Plan by M/s Paradip Port Trust – Finalization of ToR – [F.No.10-18/2017-IA-III] [IA/OR/MIS/62887/2017]

The project proponent did not attend the meeting.

18.4.09 Expansion of Existing Common Hazardous Waste Treatment Storage and Disposal Facility (CHWTSDF) to Integrated Common Hazardous Waste Treatment Storage and Disposal Facility (ICHWTSDF) at Survey No 1018/13, Gudli Village, Zinc Smelter Chouraha, Debari Railway Station Road, Mavli Tehsil, Udaipur District, Rajasthan by M/s Rajasthan Waste Management Project (Division of Ramky Enviro Engineers Ltd) – Finalization of ToR – [F.No.10-19/2017-IA-III] [IA/RJ/MIS/63355/2017]

The project proponent made a presentation and provided the following information to the Committee:-

- (i). The proposal is for the Expansion of Existing Common Hazardous Waste Treatment Storage and Disposal Facility (CHWTSDF) to Integrated Common Hazardous Waste Treatment Storage and Disposal Facility (ICHWTSDF) at Survey no 1018/13, Gudil Village, Zinc Smelter Chouraha, Debari Railway Station Road, Mavli Tehsil, Udaipur District, Rajasthan promoted by M/s Rajasthan Waste management Project (Division of Ramky Enviro Engineers Ltd).
- (ii). The existing facility located at Survey No 1018/13, Gudli Village, Zinc Smelter Chouraha, Debari Railway Station Road, Mavli Tehsil, Udaipur District, Rajasthan, with land area of 21 acres.
- (iii). Proposed project activities consists of Collection, transportation, reception, treatment, storage, re-use, recycle, blending and disposal of industrial hazardous wastes, bio-medical waste, Spent Solvent Recycling, Used oil recycling, Alternate Fuel & Raw Material Facility, Used Lead Acid Batteries, Waste plastic & paper recycling and E-

Waste generated in the state of Rajasthan. Site is connected with village road, National Highway -76 (NH-27) road located 2.5 km South of the site.

- (iv). Existing TSDF facility have current capacity of 18,000 TPA, alternative fuel and raw material 2,000 TPA, proposed capacity of secured landfill (DLF)-20,000 TPA, stabilization (LAT)- 40,000 TPA, incineration (INC) - 500 kg/hr (common for hazardous waste & bio medical waste) bio-medical waste- 5 TPD, alternative fuel and raw material 18,000 TPA, e-waste- 4,000 TPA, used oil recycling - 2 KLD, spent solvent recycling- 5 KLD, lead recycling- 2,000 TPA, paper recycling- 2 TPD & plastic recycling- 2 TPD are Proposed.
- (v). The proposed project falls in Project Activity 7(d) - Common hazardous waste treatment, storage and disposal facilities (TSDFs). The proposed project falls in Category 'A', All Integrated facilities having incineration & landfill or Incineration alone.
- (vi). The total power required for the proposed project is 450 kVA will be taken from Ajmer Vidyut Vitran Nigam Limited.
- (vii). The total water required is 60 KLD will be met through Ground Water / Village Panchayat Supply Source.
- (viii). Green belt development is taken up 5 m wide (3 rows of different height) along boundary and open areas/closed dump site with 33% of land area and proper treatment provided to leachate to restrict odor problem.
- (ix). The total cost of the project after expansion including infrastructure setup is Rs. 40.00 Crores.
- (x). **The following reserved forests are located within 10 km radius of project site:** Kantia Reserved Forest – 1 km N, Bara Magra Reserved Forest – 0.8 km W, Panwari Reserved Forest – 1.1 km S, Dhenkli Reserved Forest – 5 km NW, Bhainsara Reserved Forest – 5 km NW, Amberi Protected Forest – 9 km NW, Nauva Reserved Forest - 9.5 km NW, Kherad Reserved Forest – 8.5 km NNW, NaharMagra Reserved Forest – 7.5 km NE, Khamlodia Reserved Forest – 4.6 km SW, Hinglashia Reserved Forest – 5.6 km SSW, Umra Reserved Forest – 9 km SW, Bordi Reserved Forest – 5 km SW, Nature Park – 8.85 km S.
- (xi). **Employment Potential:** The project is going to create some employment. Due to this project activity, some persons in the project area will be recruited as skilled and semi-skilled workers by the company as per its policy. Therefore, some employment and income are likely to be generated for the local people. So, the project will contribute in a positive manner towards direct employment in the project area.
- (xii). **Benefits of the Project:** The Facility will bridge the yawning gap in the demand and availability of hazardous waste management facilities in the state of Rajasthan.

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 for the existing facilities.
- (vi) A separate chapter on status of compliance of Environmental Conditions granted by State/Centre to be provided. As per circular dated 30th May, 2012 issued by MoEF&CC, a certified report by RO, MoEF&CC on status of compliance of conditions on existing EC to be provided in EIA-EMP report.
- (vii) Details of various waste management units with capacities for the proposed project.
- (viii) List of waste to be handled and their source along with mode of transportation.
- (ix) Other chemicals and materials required with quantities and storage capacities.
- (x) Details of temporary storage facility for storage of hazardous waste at project site.
- (xi) Details of pre-treatment facility of hazardous waste at TSDF.
- (xii) Details of air emissions, effluents, hazardous/solid 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) Process description along with major equipments and machineries, process flow sheet (quantative) from waste material to disposal to be provided.
- (xv) Hazard identification and details of proposed safety systems.
- (xvi) Layout maps of proposed Solid Waste Management Facilities indicating storage area, plant area, greenbelt area, utilities etc.
- (xvii) 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.
- (xviii) Ground water quality monitoring in and around the project site.
- (xix) Status of the land purchases in terms of land acquisition Act and study the impact.
- (xx) Status of acquisition of land. If acquisition is not complete, stage of the acquisition process and expected time of complete possession of the land.
- (xxi) R&R details in respect of land in line with state Government policy.
- (xxii) Details of effluent treatment and recycling process.
- (xxiii) Leachate study report and detailed leachate management plan to be incorporated.
- (xxiv) Action plan for measures to be taken for excessive leachate generation during monsoon period.
- (xxv) Action plan for any pollution of ground water is noticed during operation period or post closure monitoring period.
- (xxvi) Detailed Environmental Monitoring Plan as well as Post Closure Monitoring Plan.
- (xxvii) 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.
- (xxviii) 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.

(xxix) 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.

18.4.10 Expansion of Existing Common Hazardous Waste Treatment Storage and Disposal Facility (CHWTSDF) to Integrated Common Hazardous Waste Treatment Storage and Disposal Facility (ICHWTSDF) at Kher Village, Barmer District, Rajasthan by M/s Balotra Waste Management Project (Division of Ramky Enviro Engineers Ltd) – Finalization of ToR – [F.No.10-20/2017-IA-III] [IA/RJ/MIS/63432/2017]

The project proponent made a presentation and provided the following information to the Committee:-

- (i) The proposal is for the expansion of existing Common Hazardous Waste Treatment Storage and Disposal Facility (CHWTSDF) to Integrated Common Hazardous Waste Treatment Storage and Disposal Facility (ICHWTSDF) at Kher Village, Barmer District, Rajasthan by M/s Balotra Waste management Project (Division of Ramky Enviro Engineers Ltd)
- (ii) Proposed project activities consists of collection, transportation, reception, treatment, storage, re-use, recycle, blending and disposal of industrial hazardous wastes, bio-medical waste, spent solvent recycling, used oil recycling, alternate fuel & raw material facility (AFRF), lead recycling, paper recycling, plastic recycling and e-waste management facility.
- (iii) The total power required for the proposed project is 450 kVA will be taken from Rajasthan Rajya Vidyut Utpasan Nigam Limited.
- (iv) The total water required is 60 KLD will be met through Ground Water Source/Tankers.
- (v) Green belt development is taken up 5 m wide (3 rows of different height) along boundary and open areas/closed dump site with 33% of land area and proper treatment provided to leachate to restrict odor problem.
- (vi) Existing TSDF facility have current capacity of 24,000 TPA, proposed capacity of secured landfill (DLF) - 20,000 TPA, stabilization (LAT) - 40,000 TPA, incineration (INC) - common for hazardous waste & bio medical waste- 500 kg/hr, bio-medical waste - 5 TPD, alternative fuel and raw material 18,000 TPA, e-waste - 4,000 TPA, used oil recycling - 2 KLD, spent solvent recycling - 5 KLD, lead recycling - 2,000 TPA, paper recycling - 2 TPD & plastic recycling - 2 TPD are Proposed.
- (vii) Stream is flowing adjacent to project site in Northern side of site boundary. Jerla Lake is located - 3.7 km Southeast & Luni River is located - 5.1 km South from the project site. Nakoda Forest located – 9.8 km South of the project site.
- (viii) Cost of the Project: The total cost of the project after expansion including infrastructure setup is Rs. 40.00 Crores.

- (ix) **Employment Potential:** The project is going to create some employment. Due to this project activity, some persons in the project area will be recruited as skilled and semi-skilled workers by the company as per its policy. Therefore, some employment and income are likely to be generated for the local people. So, the project will contribute in a positive manner towards direct employment in the project area.
- (x) **Benefits of the Project:** The Facility will bridge the yawning gap in the demand and availability of hazardous waste management facilities in the state of Rajasthan.

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 for the existing facilities.
- (vi) A separate chapter on status of compliance of Environmental Conditions granted by State/Centre to be provided. As per circular dated 30th May, 2012 issued by MoEF&CC, a certified report by RO, MoEF&CC on status of compliance of conditions on existing EC to be provided in EIA-EMP report.
- (vii) Details of various waste management units with capacities for the proposed project.
- (viii) List of waste to be handled and their source along with mode of transportation.
- (ix) Other chemicals and materials required with quantities and storage capacities.
- (x) Details of temporary storage facility for storage of hazardous waste at project site.
- (xi) Details of pre-treatment facility of hazardous waste at TSDF.
- (xii) Details of air emissions, effluents, hazardous/solid 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) Process description along with major equipments and machineries, process flow sheet (quantative) from waste material to disposal to be provided.
- (xv) Hazard identification and details of proposed safety systems.
- (xvi) Layout maps of proposed Solid Waste Management Facilities indicating storage area, plant area, greenbelt area, utilities etc.
- (xvii) 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.

- (xviii) Ground water quality monitoring in and around the project site.
- (xix) Status of the land purchases in terms of land acquisition Act and study the impact.
- (xx) Status of acquisition of land. If acquisition is not complete, stage of the acquisition process and expected time of complete possession of the land.
- (xxi) R&R details in respect of land in line with state Government policy.
- (xxii) Details of effluent treatment and recycling process.
- (xxiii) Leachate study report and detailed leachate management plan to be incorporated.
- (xxiv) Action plan for measures to be taken for excessive leachate generation during monsoon period.
- (xxv) Action plan for any pollution of ground water is noticed during operation period or post closure monitoring period.
- (xxvi) Detailed Environmental Monitoring Plan as well as Post Closure Monitoring Plan.
- (xxvii) 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.
- (xxviii) 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.
- (xxix) 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.

18.4.11 Enhancement of Incineration Capacity and Installation of Common MEE and Spray Dryer Units at MIDC, Ranjangaon, Dist Pune, Maharashtra by M/s Maharashtra Enviro Power Limited – Finalization of ToR – [F.No.10-16/2017-IA-III] [IA/MH/MIS/62901/2017]

The project proponent made a presentation and provided the following information to the Committee:-

- (i) The project proponent made a presentation and provided the following information to the Committee:-
- (ii) Maharashtra Enviro Power Ltd (MEPL) has operational CHWTSDF facility at P-56, MIDC Ranjangaon, Village-Ranjangaon, Taluk-Shirur, Pune, Maharashtra. MEPL obtained consent to establish on 27.10.2005 from Maharashtra Pollution Control Board (MPCB) vide Order No: BO/RO (P&P)/Pune-345-05/cc-283 and later obtained Consent to Operate vide order No: BO/ROJ/HWM/TSDF/PUNE/CC-635 dated 17/11/2008.
- (iii) The present TSDF facility consists of secured land fill and plasma gasification facility. The present CHWTSDF site is within the notified industrial estate, i.e. MIDC,

Ranjangaon. This proposal is for enhancement of treatment capacity for incinerable waste, addition of common multiple effect evaporator and common spray drying unit at existing TSDF facility.

- (iv) Proposed project is to be taken up at the MEPL, CHWTSDF site located at P-56, MIDC Ranjangaon, Village- Ranjangaon, Taluk-Shirur, Pune, Maharashtra. The site is having a Latitude : 18°48'8.10"N, Longitude : 74°17'11.95"E.
- (v) The proposed project will have following major components added to existing CHWTSDF site
- Common Hazardous Waste Incinerator (80 TPD Capacity)
 - Common Multiple Effect Evaporation System (200 KL/Day Capacity)
 - Common Spray Drying Unit (200 KL/Day Capacity)
 - Upgradation/ Addition of existing effluent treatment plant to maintain ZLD of the plant.

S. No.	Project Component	Existing Capacity	Expansion Capacity	Total Capacity after expansion
1	Secured Land Fill	60000 MT/Year	0	60000 MT/Year
2	Hazardous Waste Incineration	72 TPD	80 TPD	152 TPD
3	Common Multiple Effect Evaporator	0	200 KL/Day	200 KL/Day
4	Common Spray Dryer	0	200 KL/Day	200 KL/Day
5	Power Plant	6 MW	0	6 MW

- (vi) Additional Water Requirement is 125 KL/Day in addition to existing 165 KL/Day. Part of this water will be sourced from the recycling of water from MEE system which will have total 200 KL/day capacity. Any make up water if required will be sourced through MIDC.
- (vii) Estimated cost of proposed project is Rs. 105.00 Crore.
- (viii) **Employment potential:** The project involves labour camp for 120 labours during construction.
- (ix) **Benefits of the project:** The proposed expansion of incineration facility will support the future need of industry for disposal of hazardous waste generated from the industries in course of industrial development in the region. Installation of common MEE and spray dryer system will attract small and medium scale industries for sending their high TDS aqueous waste water to facility and thus to comply with ZLD requirement, instead of putting their own facility. The project will bring in additional direct and indirect employment in region.

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 for the existing facilities.
- (vi) Details of various waste management units with capacities for the proposed project.
- (vii) List of waste to be handled and their source along with mode of transportation.
- (viii) Other chemicals and materials required with quantities and storage capacities.
- (ix) Details of temporary storage facility for storage of hazardous waste at project site.
- (x) Details of pre-treatment facility of hazardous waste at TSDF.
- (xi) Details of air emissions, effluents, hazardous/solid waste generation and their management.
- (xii) Requirement of water, power, with source of supply, status of approval, water balance diagram, man-power requirement (regular and contract).
- (xiii) Process description along with major equipments and machineries, process flow sheet (quantative) from waste material to disposal to be provided.
- (xiv) Hazard identification and details of proposed safety systems.
- (xv) Layout maps of proposed Solid Waste Management Facilities indicating storage area, plant area, greenbelt area, utilities etc.
- (xvi) 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.
- (xvii) Ground water quality monitoring in and around the project site.
- (xviii) Status of the land purchases in terms of land acquisition Act and study the impact.
- (xix) Status of acquisition of land. If acquisition is not complete, stage of the acquisition process and expected time of complete possession of the land.
- (xx) R&R details in respect of land in line with state Government policy.
- (xxi) Details of effluent treatment and recycling process.
- (xxii) Leachate study report and detailed leachate management plan to be incorporated.
- (xxiii) Action plan for measures to be taken for excessive leachate generation during monsoon period.
- (xxiv) Action plan for any pollution of ground water is noticed during operation period or post closure monitoring period.
- (xxv) Detailed Environmental Monitoring Plan as well as Post Closure Monitoring Plan.
- (xxvi) 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.

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

It was recommended that 'TOR' 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 Committee exempted Public hearing as per para 7(i) III Stage (3)(i)(b) of EIA Notification, 2006 for preparation of EIA/EMP Report, being site is located in the Notified industrial area.

18.4.12 Group housing project 'Hindon Green Valley' at Khasra No. 536, 540/1, 540/2 & 543 Village Mahiuddinpur Kanwani, Indirapuram, Paragana-Loni, Tehsil Dadri, District-Ghaziabad, Uttar Pradesh by M/s Rishabh Buildwell Pvt. Ltd – Environmental Clearance - [F.No.21-126/2017-IA-III] [IA/UP/NCP/63643/2017]

The project proponent made a presentation and provided the following information to the Committee:-

- (i) The present proposal is for development of a group housing project "Hindon Green Valley". Project site is spread over an area of 26625.580 sqm and site is divided into two parts by 18 m wide road. Parcel located in Southern side (Part A) of the road is of 2727.76 sqm & larger parcel in Northern side (Part B) of the road measures 23897.82 sqm.
- (ii) Project involves development of 6 residential towers and one EWS/LIG tower in Part B and one residential tower, school & convenient shopping in part A along with green area development and allied facilities for waste treatment and storm water management. Also area of 3999.828 sqm is reserved for development of greens at site. After development the project will have built-up area of 146245.567 sqm.
- (iii) During construction phase, treated water from CSTP at Indirapuram or treated excess STP water from nearby operational group housing projects can be taken. Water requirement during construction phase will be 30-50 KLD. For operation phase, water supply will be provided by Ghaziabad Development Authority. Total water requirement for the proposed project is approx. 560 KLD, out of which total domestic water requirement is 528 KLD. Total fresh water requirement for the project is approx. 389 KLD.
- (iv) Wastewater generated during construction phase will be disposed-off in septic tanks/soak pit. It is expected that the project will generate approx. 474 KLD of sewage. 215 KLD of sewage will be treated in STP of capacity 250 KLD with FAB technology to be constructed within part B of project site to meet non potable water requirement at site. Treated water (171 KLD) from STP will be re-used within project site for flushing & landscaping.
- (v) Rainwater from the site will be collected and will be recharged into the ground through 4 nos. RWH pits. Capacity of each pit (RWH + de-silting chamber) is 17 cum.
- (vi) Solid waste to be generated during construction phase will comprise of small quantity of municipal waste, construction waste and used oil from DG sets/machinery. Expected quantity of waste is 20-30 kg/day. During operation phase, waste will comprise of municipal waste from. It is estimated that approx. 3157 kg per day.
- (vii) Power requirement during construction phase will be 100-125 kVA and a temporary connection will be taken from PVVNL. DG of 125-150 kVA will be provided at the site as power back-up during construction phase

- (viii) Total green area at the project site for both part A & part B is 3999.828 sq m, i.e. 15.07% of plot area. 15.07% is soft green area apart from this there is additional hard green area at the site.
- (ix) Parking space for 1130 cars is available at the site. Parking will be provided in basements and stilts.
- (x) **Employment potential:** It is estimated app. 200-250 workers will be employed during construction and app. 753 people will get employment during operation phase
- (xi) **Benefits of the project:** Project involves development of residential towers, EWS/LIG housing and support facilities like school & convenient shopping. The housing is developed with the class facilities available for modern day housing. Population in Delhi NCR is increasing at alarming rate and thus the project will be beneficial and cater the housing need of increasing population.

During the deliberation, the Committee noted that the project was earlier submitted in SEIAA, Uttar Pradesh on 19th August, 2016 and was appraised by SEAC, U.P. in its meeting held on 23rd December, 2016. There were some queries raised. The point wise reply for the queries was submitted to the SEAC, U.P. on 21st January, 2107. In the meantime the SEIAA/SEAC, U.P. was dissolved in February, 2017. Hence, the project was submitted to EAC at Central Level for grant of Environment Clearance.

After detailed deliberations on the proposal the Committee 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:

PART A – SPECIFIC CONDITIONS:

I. Construction Phase

- (i) 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.
- (ii) The natural drain system should be maintained for ensuring unrestricted flow of water. No construction shall be allowed to obstruct the natural drainage through the site, on wetland and water bodies. Check dams, bio-swales, landscape, and other sustainable urban drainage systems (SUDS) are allowed for maintaining the drainage pattern and to harvest rain water. Buildings shall be designed to follow the natural topography as much as possible. Minimum cutting and filling should be done.
- (iii) Construction site shall be adequately barricaded before the construction begins. Dust, smoke & other air pollution prevention measures shall be provided for the building as well as the site. These measures shall include screens for the building under construction, continuous dust/ wind breaking walls all around the site (at least 3 meter height). Plastic/tarpaulin sheet covers shall be provided for vehicles bringing in sand, cement, murrum and other construction materials prone to causing dust pollution at the site as well as taking out debris from the site. Sand, murrum, loose soil, cement, stored on site shall be covered adequately so as to prevent dust pollution. Wet jet shall be provided for grinding and stone cutting. Unpaved surfaces and loose soil shall be adequately sprinkled with water to suppress dust.
- (iv) All construction and demolition debris shall be stored at the site (and not dumped on the roads or open spaces outside) before they are properly disposed. All demolition and construction waste shall be managed as per the provisions of the Construction and Demolition Waste Rules, 2016. All workers working at the construction site and involved in loading, unloading, carriage of construction material and construction debris or working in any area with dust pollution shall be provided with dust mask.

- (v) At least 20% of the open spaces as required by the local building bye-laws shall be pervious. Use of Grass pavers, paver blocks with at least 50% opening, landscape etc. would be considered as pervious surface.
- (vi) Compliance with the Energy Conservation Building Code (ECBC) of Bureau of Energy Efficiency shall be ensured. Buildings in the States which have notified their own ECBC, shall comply with the State ECBC. Outdoor and common area lighting shall be LED. Concept of passive solar design that minimize energy consumption in buildings by using design elements, such as building orientation, landscaping, efficient building envelope, appropriate fenestration, increased day lighting design and thermal mass etc. shall be incorporated in the building design. Wall, window, and roof u-values shall be as per ECBC specifications.
- (vii) Use of water saving devices/ fixtures (viz. low flow flushing systems; use of low flow faucets tap aerators etc) for water conservation shall be incorporated in the building plan.
- (viii) Installation of dual pipe plumbing for supplying fresh water for drinking, cooking and bathing etc and other for supply of recycled water for flushing, landscape irrigation, car washing, thermal cooling, conditioning etc. shall be done.
- (ix) Separation of grey and black water should be done by the use of dual plumbing system. In case of single stack system separate recirculation lines for flushing by giving dual plumbing system be done.
- (x) Sewage shall be treated in the STP based on FAB technology (with tertiary treatment i.e. Ultra Filtration). The treated effluent from STP shall be recycled/re-used for flushing, horticulture & DG cooling.
- (xi) 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. As proposed, rain water harvesting structures will be installed at 5 locations. Rainwater from the site will be collected and will be recharged into the ground through 4 nos. RWH pits. Capacity of each pit (RWH + de-silting chamber) is 17 cum
- (xii) 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. As proposed, 100 m² of 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.
- (xiii) Solar based electric power shall be provided to each unit for at least two bulbs/light and one fan. As proposed, central lighting and street lighting shall also be based on solar power.
- (xiv) A First Aid Room shall be provided in the project both during construction and operations of the project.
- (xv) Topsoil should be stripped to a depth of 20 cm from the areas proposed for buildings, roads, paved areas, and external services. It should be stockpiled appropriately in designated areas and reapplied during plantation of the proposed vegetation on site.
- (xvi) Disposal of muck during construction phase shall not create any adverse effect on the neighboring communities and be disposed taking the necessary precautions for general safety and health aspects of people, only in approved sites with the approval of competent authority.
- (xvii) The diesel generator sets to be used during construction phase shall be low sulphur diesel type and shall conform to Environmental (Protection) prescribed for air and noise emission standards.

- (xviii) Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.
- (xix) As proposed, no ground water shall be used during construction/ operation phase of the project.
- (xx) Approval of the CGWA require before any dewatering for basements.
- (xxi) 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.
- (xxii) An assessment of the cumulative 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 05 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 implemented to the satisfaction of the State Urban Development and Transport Departments shall also include the consent of all the concerned implementing agencies.
- (xxiii) Any hazardous waste generated during construction phase, shall be disposed off as per applicable rules and norms with necessary approvals of the State Pollution Control Board.
- (xxiv) Vehicles hired for bringing construction material to the site should be in good condition and should have a pollution check certificate and should conform to applicable air and noise emission standards be operated only during non-peak hours.
- (xxv) Ambient noise levels shall conform to residential standards both during day and night as per Noise Pollution (Control and Regulation) Rules, 2000. Incremental pollution loads on the ambient air and noise quality shall be closely monitored during construction phase. Adequate measures shall be made to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by CPCB / SPCB.
- (xxvi) Use of environment friendly materials in bricks, blocks and other construction materials, shall be required for at least 20% of the construction material quantity. These include Fly Ash bricks, hollow bricks, AACs, Fly Ash Lime Gypsum blocks, Compressed earth blocks, and other environment friendly materials. Fly ash should be used as building material in the construction as per the provision of Fly Ash Notification of September, 1999 and amended as on 27th August, 2003 and 25th January, 2016. Ready mixed concrete must be used in building construction.
- (xxvii) A comprehensive mobility plan, as per MoUD best practices guidelines (URDPFI), shall be prepared to include motorized, non-motorized, public, and private networks. Road should be designed with due consideration for environment, and safety of users. The road system can be designed with these basic criteria.
 - Hierarchy of roads with proper segregation of vehicular and pedestrian traffic.
 - Traffic calming measures
 - Proper design of entry and exit points.
 - Parking norms as per local regulation

II. Operational Phase

- (i) The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution. Low sulphur diesel shall be used. The location of the DG set and exhaust pipe height shall be as per the provisions of the Central Pollution Control Board (CPCB) norms.
- (ii) For indoor air quality the ventilation provisions as per National Building Code of India.

- (iii) Fresh water requirement from Municipal Water Supply shall not exceed 389 m³/day.
- (iv) The quantity of fresh water usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance as projected by the project proponent. The record shall be submitted to the Regional Office, MoEF&CC along with six monthly Monitoring reports.
- (v) The installation of the Sewage Treatment Plant (STP) shall be certified by an independent expert and a report in this regard shall be submitted to the Ministry before the project is commissioned for operation. Periodical monitoring of water quality of treated sewage shall be conducted. Necessary measures should be made to mitigate the odour problem from STP.
- (vi) No sewage or untreated effluent water would be discharged through storm water drains. Treated effluents shall not be allowed to flow to the pond being proposed for excess rain water collection.
- (vii) Sludge from the onsite sewage treatment, including septic tanks, shall be collected, conveyed and disposed as per the Ministry of Urban Development, Central Public Health and Environmental Engineering Organization (CPHEEO) Manual on Sewerage and Sewage Treatment Systems, 2013.
- (viii) The provisions of the Solid Waste (Management) Rules, 2016, e-Waste (Management) Rules, 2016, and the Plastics Waste (Management) Rules, 2016 shall be followed.
- (ix) Solar power shall be used for lighting in the apartment to reduce the power load on grid. Separate electric meter shall be installed for solar power. Solar water heaters shall be used to meet hot water demand, as far as possible.
- (x) Energy conservation measures like installation of CFLs/ LED for the lighting the area outside the building should be integral part of the project design and should be in place before project commissioning. Used CFLs, TFL and LED shall be properly collected and disposed off/sent for recycling as per the prevailing guidelines/rules of the regulatory authority to avoid mercury contamination.
- (xi) 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. Area earmarked for greenbelt is 3999.828 sqm, i.e. 15.07% of plot area.
- (xii) The company shall draw up and implement a corporate social Responsibility plan as per the Company's Act of 2013.
- (xiii) An environmental management plan (EMP) shall be prepared and implemented to ensure compliance with the environmental conditions specified above. 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, 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.

18.4.13 Group housing at Plot No SC-01/ 08, Sector 152, Noida, Uttar Pradesh by M/s Star Landcraft Pvt Ltd- Environmental Clearance- [F.No.21-127/2017-IA-III] [IA/UP/NCP/63668/2017]

The project proponent made a presentation and provided the following information to the Committee:-

- (i) The present proposal is for development of a group housing at Plot No SC-01/ 08, Sector 152, Noida, Uttar Pradesh on a total plot area of 40,433.81 sqm and total built up area is 143851.08 sqm.
- (ii) Proposed project is construction of multi-storeyed residential with community facilities. Adequate parking 1525 ECS is proposed on surface, stilt & basements for visitors as well as residents. Community facilities include club house, parks, and gardens. A total of 14508.8 sqm is to be developed as landscape area.
- (iii) The project envisages construction of 27 (5 Residential Towers+20 villas+1 Community Hall +1 Commercial) of 2B+G/ST+28 floors. Total population of the proposed project will be 2623 which include the population of residents, community and visitors.
- (iv) The total water requirement for the project has been estimated to be 232 KLD. This includes domestic water requirement, flushing, D.G. cooling and landscaping. The total fresh water requirement is 118 KLD which includes domestic water requirement. The water requirement for flushing and landscaping will be met through treated water from STP.
- (v) Total waste water generated is 142 KLD, which will be treated in onsite STP. The treated water will be recycled and re-used for flushing, D.G. cooling and landscaping.
- (vi) The total electrical load demand has been estimated to be 2600 KW for the proposed project. The source of power will be from Uttar Pradesh Power Corporation Ltd. In case of power failure, DG sets of total capacity of 2100 KVA (1x600+2x750) for the proposed project will be provided as power back-up.
- (vii) The domestic solid waste will be generated by the occupants of the residents, visitors and people coming to community area will pertain to the two categories, Bio-degradable and Non-biodegradable. It is estimated that maximum solid waste generation would be about 0.97 TPD for the proposed project and 103 kg of sludge will be generated from the proposed project.
- (viii) Area earmarked for greenbelt is 14508.8 sqm (approx. 36.85 % of Plot Area).
- (ix) **Cost of the project** is Rs. 261 Crores.
- (x) **Employment potential:** The project involves labour camp for 120 labours during construction.
- (xi) **Benefits of the project:** During operational phase of Group Housing, persons will get employment opportunities as staff for management, maintenance and security. As an estimate, during operation phase, persons will get marginal employment opportunities from the residents of Group Housing who would work as domestic helpers. This will help in improving the quality of life of economically weaker sections of the local area.

After detailed deliberation the Committee 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:

PART A – SPECIFIC CONDITIONS:

I. Construction Phase

- (i) 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.
- (ii) The natural drain system should be maintained for ensuring unrestricted flow of water. No construction shall be allowed to obstruct the natural drainage through the site, on wetland and water bodies. Check dams, bio-swailes, landscape, and other sustainable urban drainage systems (SUDS) are allowed for maintaining the drainage pattern and to

harvest rain water. Buildings shall be designed to follow the natural topography as much as possible. Minimum cutting and filling should be done.

- (iii) Construction site shall be adequately barricaded before the construction begins. Dust, smoke & other air pollution prevention measures shall be provided for the building as well as the site. These measures shall include screens for the building under construction, continuous dust/ wind breaking walls all around the site (at least 3 meter height). Plastic/tarpaulin sheet covers shall be provided for vehicles bringing in sand, cement, murrum and other construction materials prone to causing dust pollution at the site as well as taking out debris from the site. Sand, murrum, loose soil, cement, stored on site shall be covered adequately so as to prevent dust pollution. Wet jet shall be provided for grinding and stone cutting. Unpaved surfaces and loose soil shall be adequately sprinkled with water to suppress dust.
- (iv) All construction and demolition debris shall be stored at the site (and not dumped on the roads or open spaces outside) before they are properly disposed. All demolition and construction waste shall be managed as per the provisions of the Construction and Demolition Waste Rules, 2016. All workers working at the construction site and involved in loading, unloading, carriage of construction material and construction debris or working in any area with dust pollution shall be provided with dust mask.
- (v) At least 20% of the open spaces as required by the local building bye-laws shall be pervious. Use of Grass pavers, paver blocks with at least 50% opening, landscape etc. would be considered as pervious surface.
- (vi) Compliance with the Energy Conservation Building Code (ECBC) of Bureau of Energy Efficiency shall be ensured. Buildings in the States which have notified their own ECBC, shall comply with the State ECBC. Outdoor and common area lighting shall be LED. Concept of passive solar design that minimize energy consumption in buildings by using design elements, such as building orientation, landscaping, efficient building envelope, appropriate fenestration, increased day lighting design and thermal mass etc. shall be incorporated in the building design. Wall, window, and roof u-values shall be as per ECBC specifications.
- (vii) Use of water saving devices/ fixtures (viz. low flow flushing systems; use of low flow faucets tap aerators etc) for water conservation shall be incorporated in the building plan.
- (viii) Installation of dual pipe plumbing for supplying fresh water for drinking, cooking and bathing etc and other for supply of recycled water for flushing, landscape irrigation, car washing, thermal cooling, conditioning etc. shall be done.
- (ix) Separation of grey and black water should be done by the use of dual plumbing system. In case of single stack system separate recirculation lines for flushing by giving dual plumbing system be done.
- (x) Sewage shall be treated in the STP based on MBBR technology (with tertiary treatment i.e. Ultra Filtration). The treated effluent from STP shall be recycled/re-used for flushing, horticulture & DG cooling.
- (xi) 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. As proposed, rain water harvesting structures will be installed at 5 locations. Estimated quantity of rain water to be harvested is 12010.8 cum per year as per CGWB guidelines.
- (xii) 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. As proposed, 75 m² of 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.

- (xiii) Solar based electric power shall be provided to each unit for at least two bulbs/light and one fan. As proposed, central lighting and street lighting shall also be based on solar power.
- (xiv) Motion sensor based lights to be provided in parking areas, corridors, passages, aisles, stairways.
- (xv) A First Aid Room shall be provided in the project both during construction and operations of the project.
- (xvi) Topsoil should be stripped to a depth of 20 cm from the areas proposed for buildings, roads, paved areas, and external services. It should be stockpiled appropriately in designated areas and reapplied during plantation of the proposed vegetation on site.
- (xvii) Disposal of muck during construction phase shall not create any adverse effect on the neighboring communities and be disposed taking the necessary precautions for general safety and health aspects of people, only in approved sites with the approval of competent authority.
- (xviii) The diesel generator sets to be used during construction phase shall be low sulphur diesel type and shall conform to Environmental (Protection) prescribed for air and noise emission standards.
- (xix) Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.
- (xx) As proposed, no ground water shall be used during construction/ operation phase of the project.
- (xxi) Approval of the CGWA require before any dewatering for basements.
- (xxii) 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.
- (xxiii) Any hazardous waste generated during construction phase, shall be disposed off as per applicable rules and norms with necessary approvals of the State Pollution Control Board.
- (xxiv) Vehicles hired for bringing construction material to the site should be in good condition and should have a pollution check certificate and should conform to applicable air and noise emission standards be operated only during non-peak hours.
- (xxv) An assessment of the cumulative 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 05 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 implemented to the satisfaction of the State Urban Development and Transport Departments shall also include the consent of all the concerned implementing agencies.
- (xxvi) Ambient noise levels shall conform to residential standards both during day and night as per Noise Pollution (Control and Regulation) Rules, 2000. Incremental pollution loads on the ambient air and noise quality shall be closely monitored during construction phase. Adequate measures shall be made to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by CPCB / SPCB.
- (xxvii) Use of environment friendly materials in bricks, blocks and other construction materials, shall be required for at least 20% of the construction material quantity. These include Fly Ash bricks, hollow bricks, AACs, Fly Ash Lime Gypsum blocks, Compressed earth

blocks, and other environment friendly materials. Fly ash should be used as building material in the construction as per the provision of Fly Ash Notification of September, 1999 and amended as on 27th August, 2003 and 25th January, 2016. Ready mixed concrete must be used in building construction.

(xxviii) A comprehensive mobility plan, as per MoUD best practices guidelines (URDPFI), shall be prepared to include motorized, non-motorized, public, and private networks. Road should be designed with due consideration for environment, and safety of users. The road system can be designed with these basic criteria.

- Hierarchy of roads with proper segregation of vehicular and pedestrian traffic.
- Traffic calming measures
- Proper design of entry and exit points.
- Parking norms as per local regulation

II. Operational Phase

- (i) The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution. Low sulphur diesel shall be used. The location of the DG set and exhaust pipe height shall be as per the provisions of the Central Pollution Control Board (CPCB) norms.
- (ii) For indoor air quality the ventilation provisions as per National Building Code of India.
- (iii) Fresh water requirement from Municipal Water Supply shall not exceed 118 m³/day.
- (iv) The quantity of fresh water usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance as projected by the project proponent. The record shall be submitted to the Regional Office, MoEF&CC along with six monthly Monitoring reports.
- (v) The installation of the Sewage Treatment Plant (STP) shall be certified by an independent expert and a report in this regard shall be submitted to the Ministry before the project is commissioned for operation. Periodical monitoring of water quality of treated sewage shall be conducted. Necessary measures should be made to mitigate the odour problem from STP.
- (vi) No sewage or untreated effluent water would be discharged through storm water drains.
- (vii) Out of the total waste water generated, treatment facilities will be provided for only that part of the effluent which can be recycled and reused after treatment. The project proponents would also explore the possibilities of using treated effluents for road side plantations in consultation with the Forest Department/Local authorities. The effluents which cannot be reused or recycled can be sent raw and untreated to a STP for treatment for which permission shall be duly sought and the quality of effluents to the STP maintained as per the terms of the agreement. In the absence of a supporting STP, the project proponents will treat the entire effluents generated.
- (viii) Sludge from the onsite sewage treatment, including septic tanks, shall be collected, conveyed and disposed as per the Ministry of Urban Development, Central Public Health and Environmental Engineering Organization (CPHEEO) Manual on Sewerage and Sewage Treatment Systems, 2013.
- (ix) The provisions of the Solid Waste (Management) Rules, 2016, e-Waste (Management) Rules, 2016, and the Plastics Waste (Management) Rules, 2016 shall be followed.
- (x) Solar power shall be used for lighting in the apartment to reduce the power load on grid. Separate electric meter shall be installed for solar power. Solar water heaters shall be used to meet hot water demand, as far as possible.

- (xi) Energy conservation measures like installation of CFLs/ LED for the lighting the area outside the building should be integral part of the project design and should be in place before project commissioning. Used CFLs, TFL and LED shall be properly collected and disposed off/sent for recycling as per the prevailing guidelines/rules of the regulatory authority to avoid mercury contamination.
- (xii) A minimum of 1 tree for every 80 sq.mt. 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. Area earmarked for greenbelt is 14508.8 sq m (approx. 36.85 % of Plot Area).
- (xiii) The company will draw up and implement a corporate social Responsibility plan as per the Company's Act of 2013.
- (xiv) An environmental management plan (EMP) shall be prepared and implemented to ensure compliance with the environmental conditions specified above. 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, 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.

18.4.14 Group housing at Plot No SC-01/ 09, Sector 152, Noida, Uttar Pradesh by M/s Star Landcraft Pvt Ltd – Environmental Clearance - [F.No.21-128/2017-IA-III] [IA/UP/NCP/63677/2017]

The project proponent made a presentation and provided the following information to the Committee:-

- (i) The present proposal is for development of a group housing at Plot No SC-01/ 09, Sector 152, Noida, Uttar Pradesh on a total plot area of 27,496.49 sq m and total built up area is 104094.92 sqm.
- (ii) Proposed project include construction of multi-storeyed residential with community facilities. Adequate parking 1276 ECS is proposed on surface & basements for visitors as well as residents. Community facilities include club house, parks, and gardens. A total of 11258 m² is to be developed as landscape area.
- (iii) The project envisages construction of 7 (5 Residential + 1 Community Hall + 1 Convenient Shopping) of 2B+G/ST+26 floors. Total population of the proposed project will be 3206 which include the population of residents, community and visitors.
- (iv) The total water requirement for the project has been estimated to be 271 KLD. This includes domestic water requirement, flushing, D.G. cooling and landscaping. The total fresh water requirement is 158 KLD which includes domestic water requirement. The water requirement for flushing and landscaping will be met through treated water from STP.
- (v) Total waste water generated is 187 KLD, which will be treated in onsite STP. The treated water will be recycled and re-used for flushing, D.G. cooling and landscaping.
- (vi) The total electrical load demand has been estimated to be 2500 KW for the proposed project. The source of power will be from Uttar Pradesh Power Corporation Ltd. In case of power failure, DG sets of total capacity of 1750 KVA (1x1250+1x500) for the proposed project will be provided as power back-up.

- (vii) The domestic solid waste will be generated by the occupants of the residents, visitors and people coming to community area will pertain to the two categories, Bio-degradable and Non-biodegradable. It is estimated that maximum solid waste generation would be about 1.26 TPD for the proposed project and 140 kg of sludge will be generated from the proposed project.
- (viii) Area earmarked for greenbelt is 11258 sqm (approx. 40.94 % of Plot Area).
- (ix) **Cost of the project** is Rs. 156 Crores.
- (x) **Employment potential:** The project involves labour camp for 120 labours during construction.
- (xi) **Benefits of the project:** During operational phase of Group Housing, persons will get employment opportunities as staff for management, maintenance and security. As an estimate, during operation phase, persons will get marginal employment opportunities from the residents of Group Housing who would work as domestic helpers. This will help in improving the quality of life of economically weaker sections of the local area.

After detailed deliberation on the proposal, the Committee 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:

PART A – SPECIFIC CONDITIONS:

I. Construction Phase

- (i) 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.
- (ii) The natural drain system should be maintained for ensuring unrestricted flow of water. No construction shall be allowed to obstruct the natural drainage through the site, on wetland and water bodies. Check dams, bio-swales, landscape, and other sustainable urban drainage systems (SUDS) are allowed for maintaining the drainage pattern and to harvest rain water. Buildings shall be designed to follow the natural topography as much as possible. Minimum cutting and filling should be done.
- (iii) Construction site shall be adequately barricaded before the construction begins. Dust, smoke & other air pollution prevention measures shall be provided for the building as well as the site. These measures shall include screens for the building under construction, continuous dust/ wind breaking walls all around the site (at least 3 meter height). Plastic/tarpaulin sheet covers shall be provided for vehicles bringing in sand, cement, murram and other construction materials prone to causing dust pollution at the site as well as taking out debris from the site. Sand, murram, loose soil, cement, stored on site shall be covered adequately so as to prevent dust pollution. Wet jet shall be provided for grinding and stone cutting. Unpaved surfaces and loose soil shall be adequately sprinkled with water to suppress dust.
- (iv) All construction and demolition debris shall be stored at the site (and not dumped on the roads or open spaces outside) before they are properly disposed. All demolition and construction waste shall be managed as per the provisions of the Construction and Demolition Waste Rules, 2016. All workers working at the construction site and involved in loading, unloading, carriage of construction material and construction debris or working in any area with dust pollution shall be provided with dust mask.
- (v) At least 20% of the open spaces as required by the local building bye-laws shall be pervious. Use of Grass pavers, paver blocks with at least 50% opening, landscape etc. would be considered as pervious surface.

- (vi) Compliance with the Energy Conservation Building Code (ECBC) of Bureau of Energy Efficiency shall be ensured. Buildings in the States which have notified their own ECBC, shall comply with the State ECBC. Outdoor and common area lighting shall be LED. Concept of passive solar design that minimize energy consumption in buildings by using design elements, such as building orientation, landscaping, efficient building envelope, appropriate fenestration, increased day lighting design and thermal mass etc. shall be incorporated in the building design. Wall, window, and roof u-values shall be as per ECBC specifications.
- (vii) Use of water saving devices/ fixtures (viz. low flow flushing systems; use of low flow faucets tap aerators etc) for water conservation shall be incorporated in the building plan.
- (viii) Installation of dual pipe plumbing for supplying fresh water for drinking, cooking and bathing etc and other for supply of recycled water for flushing, landscape irrigation, car washing, thermal cooling, conditioning etc. shall be done.
- (ix) Separation of grey and black water should be done by the use of dual plumbing system. In case of single stack system separate recirculation lines for flushing by giving dual plumbing system be done.
- (x) Sewage shall be treated in the STP based on MBBR technology (with tertiary treatment i.e. Ultra Filtration). The treated effluent from STP shall be recycled/re-used for flushing, horticulture & DG cooling.
- (xi) 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. As proposed, rain water harvesting structures will be installed at 3 locations. Estimated quantity of rain water to be harvested is 7684.98 cum per year as per CGWB guidelines.
- (xii) 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. As proposed, 100 m² of space shall be provided for OWC within the premises which will include area for segregation, composting. The inert waste from group housing project will be sent to dumping site.
- (xiii) Solar based electric power shall be provided to each unit for at least two bulbs/light and one fan. As proposed, central lighting and street lighting shall also be based on solar power.
- (xiv) Motion sensor based lights to be provided in parking areas, corridors, passages, aisles, stairways.
- (xv) A First Aid Room shall be provided in the project both during construction and operations of the project.
- (xvi) Topsoil should be stripped to a depth of 20 cm from the areas proposed for buildings, roads, paved areas, and external services. It should be stockpiled appropriately in designated areas and reapplied during plantation of the proposed vegetation on site.
- (xvii) Disposal of muck during construction phase shall not create any adverse effect on the neighboring communities and be disposed taking the necessary precautions for general safety and health aspects of people, only in approved sites with the approval of competent authority.
- (xviii) The diesel generator sets to be used during construction phase shall be low sulphur diesel type and shall conform to Environmental (Protection) prescribed for air and noise emission standards.

- (xix) Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.
- (xx) As proposed, no ground water shall be used during construction/ operation phase of the project.
- (xxi) Approval of the CGWA require before any dewatering for basements.
- (xxii) 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.
- (xxiii) Any hazardous waste generated during construction phase, shall be disposed off as per applicable rules and norms with necessary approvals of the State Pollution Control Board.
- (xxiv) Vehicles hired for bringing construction material to the site should be in good condition and should have a pollution check certificate and should conform to applicable air and noise emission standards be operated only during non-peak hours.
- (xxv) An assessment of the cumulative 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 05 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 implemented to the satisfaction of the State Urban Development and Transport Departments shall also include the consent of all the concerned implementing agencies.
- (xxvi) Ambient noise levels shall conform to residential standards both during day and night as per Noise Pollution (Control and Regulation) Rules, 2000. Incremental pollution loads on the ambient air and noise quality shall be closely monitored during construction phase. Adequate measures shall be made to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by CPCB / SPCB.
- (xxvii) Use of environment friendly materials in bricks, blocks and other construction materials, shall be required for at least 20% of the construction material quantity. These include Fly Ash bricks, hollow bricks, AACs, Fly Ash Lime Gypsum blocks, Compressed earth blocks, and other environment friendly materials. Fly ash should be used as building material in the construction as per the provision of Fly Ash Notification of September, 1999 and amended as on 27th August, 2003 and 25th January, 2016. Ready mixed concrete must be used in building construction.
- (xxviii) A comprehensive mobility plan, as per MoUD best practices guidelines (URDPFI), shall be prepared to include motorized, non-motorized, public, and private networks. Road should be designed with due consideration for environment, and safety of users. The road system can be designed with these basic criteria.
 - Hierarchy of roads with proper segregation of vehicular and pedestrian traffic.
 - Traffic calming measures
 - Proper design of entry and exit points.
 - Parking norms as per local regulation

II. Operational Phase

- (i) The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution. Low sulphur diesel shall be used. The location of the DG set and exhaust pipe height shall be as per the provisions of the Central Pollution Control Board (CPCB) norms.
- (ii) For indoor air quality the ventilation provisions as per National Building Code of India.

- (iii) Fresh water requirement from Municipal Water Supply shall not exceed 158 m³/day.
- (iv) The quantity of fresh water usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance as projected by the project proponent. The record shall be submitted to the Regional Office, MoEF&CC along with six monthly Monitoring reports.
- (v) The installation of the Sewage Treatment Plant (STP) shall be certified by an independent expert and a report in this regard shall be submitted to the Ministry before the project is commissioned for operation. Periodical monitoring of water quality of treated sewage shall be conducted. Necessary measures should be made to mitigate the odour problem from STP.
- (vi) No sewage or untreated effluent water would be discharged through storm water drains.
- (vii) Sludge from the onsite sewage treatment, including septic tanks, shall be collected, conveyed and disposed as per the Ministry of Urban Development, Central Public Health and Environmental Engineering Organization (CPHEEO) Manual on Sewerage and Sewage Treatment Systems, 2013.
- (viii) The provisions of the Solid Waste (Management) Rules, 2016, e-Waste (Management) Rules, 2016, and the Plastics Waste (Management) Rules, 2016 shall be followed.
- (ix) Solar power shall be used for lighting in the apartment to reduce the power load on grid. Separate electric meter shall be installed for solar power. Solar water heaters shall be used to meet hot water demand, as far as possible.
- (x) Energy conservation measures like installation of CFLs/ LED for the lighting the area outside the building should be integral part of the project design and should be in place before project commissioning. Used CFLs, TFL and LED shall be properly collected and disposed off/sent for recycling as per the prevailing guidelines/rules of the regulatory authority to avoid mercury contamination.
- (xi) A minimum of 1 tree for every 80 sq.mt. 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. Area earmarked for greenbelt is 11258 sqm (approx. 40.94 % of Plot Area).
- (xii) The company will draw up and implement a corporate social Responsibility plan as per the Company's Act of 2013.
- (xiii) An environmental management plan (EMP) shall be prepared and implemented to ensure compliance with the environmental conditions specified above. 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, 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.

18.4.15 Group housing at Plot No SC-02/ E, Sector 150, Noida, Uttar Pradesh by M/s Samridhhi Buildmart Pvt Ltd – Environmental Clearance - [F.No.21-133/2017-IA-III] [IA/UP/NCP/63868/2017]

The project proponent made a presentation and provided the following information to the Committee:-

- (i) M/s Samriddhi Builtmart Pvt. Ltd proposes to develop a group housing project at plot no. SC-02/E, Sector-150, Noida, Uttar Pradesh on a total plot area of 32,519 sqm and total built up area is 127883.10 sqm.
- (ii) Proposed project include construction of multi-storeyed residential with community facilities. Adequate parking 1698 ECS is proposed on stilt & basements for visitors as well as residents. Community facilities include club house, parks, and gardens. A total of 14405.028 sqm is to be developed as landscape area. The project envisages construction of 8 building blocks of 2B+G/ST+18 floors.
- (iii) Total population of the proposed project will be 3676 which include the population of residents, community and visitors.
- (iv) The total water requirement for the project has been estimated to be 298 KLD. This includes domestic water requirement, flushing, D.G. cooling and landscaping. The total fresh water requirement is 217 KLD which includes domestic water requirement. The water requirement for flushing and landscaping will be met through treated water from STP.
- (v) Total waste water generated is 237 KLD, which will be treated in onsite STP. The treated water will be recycled and re-used for flushing, D.G. cooling and landscaping.
- (vi) The total electrical load demand has been estimated to be 3000 KW for the proposed project. The source of power will be from Uttar Pradesh Power Corporation Ltd. In case of power failure, DG sets of total capacity of 2450 KVA (2x600+1x1250) for the proposed project will be provided as power back-up.
- (vii) The domestic solid waste will be generated by the occupants of the residents, visitors and people coming to community area will pertain to the two categories, Bio-degradable and Non-biodegradable. It is estimated that maximum solid waste generation would be about 1.50 TPD for the proposed project and 125 kg/day of sludge will be generated from the proposed project.
- (viii) Parking facility for 1698 ECS is proposed to be provided against the requirement of 816 ECS (according to local norms).
- (ix) Area earmarked for greenbelt is 14405.028 sq m (approx. 40.29 % of Plot Area).
- (x) **Cost of the project** is Rs. 192.00 Crores.
- (xi) **Employment potential:** The project involves labour camp for 125 labours during construction.
- (xii) **Benefits of the project:** During operational phase of Group Housing, persons will get employment opportunities as staff for management, maintenance and security. As an estimate, during operation phase, persons will get marginal employment opportunities from the residents of Group Housing who would work as domestic helpers. This will help in improving the quality of life of economically weaker sections of the local area.

The Committee after detailed deliberation on the proposal, 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:

PART A – SPECIFIC CONDITIONS:

I. Construction Phase

- (i) 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.

- (ii) The natural drain system should be maintained for ensuring unrestricted flow of water. No construction shall be allowed to obstruct the natural drainage through the site, on wetland and water bodies. Check dams, bio-swales, landscape, and other sustainable urban drainage systems (SUDS) are allowed for maintaining the drainage pattern and to harvest rain water. Buildings shall be designed to follow the natural topography as much as possible. Minimum cutting and filling should be done.
- (iii) Construction site shall be adequately barricaded before the construction begins. Dust, smoke & other air pollution prevention measures shall be provided for the building as well as the site. These measures shall include screens for the building under construction, continuous dust/ wind breaking walls all around the site (at least 3 meter height). Plastic/tarpaulin sheet covers shall be provided for vehicles bringing in sand, cement, murrum and other construction materials prone to causing dust pollution at the site as well as taking out debris from the site. Sand, murrum, loose soil, cement, stored on site shall be covered adequately so as to prevent dust pollution. Wet jet shall be provided for grinding and stone cutting. Unpaved surfaces and loose soil shall be adequately sprinkled with water to suppress dust.
- (iv) All construction and demolition debris shall be stored at the site (and not dumped on the roads or open spaces outside) before they are properly disposed. All demolition and construction waste shall be managed as per the provisions of the Construction and Demolition Waste Rules, 2016. All workers working at the construction site and involved in loading, unloading, carriage of construction material and construction debris or working in any area with dust pollution shall be provided with dust mask.
- (v) At least 20% of the open spaces as required by the local building bye-laws shall be pervious. Use of Grass pavers, paver blocks with at least 50% opening, landscape etc. would be considered as pervious surface.
- (vi) Compliance with the Energy Conservation Building Code (ECBC) of Bureau of Energy Efficiency shall be ensured. Buildings in the States which have notified their own ECBC, shall comply with the State ECBC. Outdoor and common area lighting shall be LED. Concept of passive solar design that minimize energy consumption in buildings by using design elements, such as building orientation, landscaping, efficient building envelope, appropriate fenestration, increased day lighting design and thermal mass etc. shall be incorporated in the building design. Wall, window, and roof u-values shall be as per ECBC specifications.
- (vii) Use of water saving devices/ fixtures (viz. low flow flushing systems; use of low flow faucets tap aerators etc) for water conservation shall be incorporated in the building plan.
- (viii) Installation of dual pipe plumbing for supplying fresh water for drinking, cooking and bathing etc and other for supply of recycled water for flushing, landscape irrigation, car washing, thermal cooling, conditioning etc. shall be done.
- (ix) Separation of grey and black water should be done by the use of dual plumbing system. In case of single stack system separate recirculation lines for flushing by giving dual plumbing system be done.
- (x) Sewage shall be treated in the STP based on MBBR technology (with tertiary treatment i.e. Ultra Filtration). The treated effluent from STP shall be recycled/re-used for flushing, horticulture & DG cooling.
- (xi) 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. As proposed, rain water harvesting structures will be installed at 6 locations and 2 surface rain water collection tanks. Estimated quantity of rain water to be harvested is 8730.35 cum per year as per CGWB guidelines.

- (xii) 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 (OWC). As proposed, 100 m² of space shall be provided for OWC within the premises which will include area for segregation, composting. The inert waste from group housing project will be sent to dumping site.
- (xiii) Solar based electric power shall be provided to each unit for at least two bulbs/light and one fan. As proposed, central lighting and street lighting shall also be based on solar power.
- (xiv) Motion sensor based lights to be provided in parking areas, corridors, passages, aisles, stairways.
- (xv) A First Aid Room shall be provided in the project both during construction and operations of the project.
- (xvi) Topsoil should be stripped to a depth of 20 cm from the areas proposed for buildings, roads, paved areas, and external services. It should be stockpiled appropriately in designated areas and reapplied during plantation of the proposed vegetation on site.
- (xvii) Disposal of muck during construction phase shall not create any adverse effect on the neighboring communities and be disposed taking the necessary precautions for general safety and health aspects of people, only in approved sites with the approval of competent authority.
- (xviii) The diesel generator sets to be used during construction phase shall be low sulphur diesel type and shall conform to Environmental (Protection) prescribed for air and noise emission standards.
- (xix) Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.
- (xx) As proposed, no ground water shall be used during construction/ operation phase of the project.
- (xxi) Approval of the CGWA require before any dewatering for basements.
- (xxii) 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.
- (xxiii) Any hazardous waste generated during construction phase, shall be disposed off as per applicable rules and norms with necessary approvals of the State Pollution Control Board.
- (xxiv) Vehicles hired for bringing construction material to the site should be in good condition and should have a pollution check certificate and should conform to applicable air and noise emission standards be operated only during non-peak hours.
- (xxv) An assessment of the cumulative 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 05 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 implemented to the satisfaction of the State Urban Development and Transport Departments shall also include the consent of all the concerned implementing agencies.
- (xxvi) Ambient noise levels shall conform to residential standards both during day and night as per Noise Pollution (Control and Regulation) Rules, 2000. Incremental pollution loads on the ambient air and noise quality shall be closely monitored during construction phase. Adequate measures shall be made to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by CPCB / SPCB.

- (xxvii) Use of environment friendly materials in bricks, blocks and other construction materials, shall be required for at least 20% of the construction material quantity. These include Fly Ash bricks, hollow bricks, AACs, Fly Ash Lime Gypsum blocks, Compressed earth blocks, and other environment friendly materials. Fly ash should be used as building material in the construction as per the provision of Fly Ash Notification of September, 1999 and amended as on 27th August, 2003 and 25th January, 2016. Ready mixed concrete must be used in building construction.
- (xxviii) A comprehensive mobility plan, as per MoUD best practices guidelines (URDPFI), shall be prepared to include motorized, non-motorized, public, and private networks. Road should be designed with due consideration for environment, and safety of users. The road system can be designed with these basic criteria.
- Hierarchy of roads with proper segregation of vehicular and pedestrian traffic.
 - Traffic calming measures
 - Proper design of entry and exit points.
 - Parking norms as per local regulation

II. Operational Phase

- (i) The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution. Low sulphur diesel shall be used. The location of the DG set and exhaust pipe height shall be as per the provisions of the Central Pollution Control Board (CPCB) norms.
- (ii) For indoor air quality the ventilation provisions as per National Building Code of India.
- (iii) Fresh water requirement from Municipal Water Supply shall not exceed 217 m³/day.
- (iv) The quantity of fresh water usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance as projected by the project proponent. The record shall be submitted to the Regional Office, MoEF&CC along with six monthly Monitoring reports.
- (v) The installation of the Sewage Treatment Plant (STP) shall be certified by an independent expert and a report in this regard shall be submitted to the Ministry before the project is commissioned for operation. Periodical monitoring of water quality of treated sewage shall be conducted. Necessary measures should be made to mitigate the odour problem from STP.
- (vi) No sewage or untreated effluent water would be discharged through storm water drains.
- (vii) Out of the total waste water generated, treatment facilities will be provided for only that part of the effluent which can be recycled and reused after treatment. The project proponents would also explore the possibilities of using treated effluents for road side plantations in consultation with the Forest Department/Local authorities. The effluents which cannot be reused or recycled can be sent raw and untreated to a STP for treatment for which permission shall be duly sought and the quality of effluents to the STP maintained as per the terms of the agreement. In the absence of a supporting STP, the project proponents will treat the entire effluents generated.
- (viii) Sludge from the onsite sewage treatment, including septic tanks, shall be collected, conveyed and disposed as per the Ministry of Urban Development, Central Public Health and Environmental Engineering Organization (CPHEEO) Manual on Sewerage and Sewage Treatment Systems, 2013.
- (ix) The provisions of the Solid Waste (Management) Rules, 2016, e-Waste (Management) Rules, 2016, and the Plastics Waste (Management) Rules, 2016 shall be followed.

- (x) Solar power shall be used for lighting in the apartment to reduce the power load on grid. Separate electric meter shall be installed for solar power. Solar water heaters shall be used to meet hot water demand, as far as possible.
- (xi) Energy conservation measures like installation of CFLs/ LED for the lighting the area outside the building should be integral part of the project design and should be in place before project commissioning. Used CFLs, TFL and LED shall be properly collected and disposed off/sent for recycling as per the prevailing guidelines/rules of the regulatory authority to avoid mercury contamination.
- (xii) 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. Area earmarked for greenbelt is 14405.028 sqm (approx. 40.29 % of Plot Area).
- (xiii) The company will draw up and implement a Corporate Social Responsibility plan as per the Company's Act of 2013.
- (xiv) An environmental management plan (EMP) shall be prepared and implemented to ensure compliance with the environmental conditions specified above. 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, 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.

18.4.16 Group Housing Project "Coco County by M/s. Shirja Real Estate Pvt Ltd - Environmental Clearance [21-88/2017-IA-III; IA/UP/NCP/62786/2017]

Application withdrawn by the Project proponent. The case may be delisted.

18.4.17 "Golf Avenue II Group Project" by M/s. AIMS RG Angel Promoters Pvt. Ltd. – Environmental Clearance [21-85/2017-IA-III; IA/UP/NCP/62776/2017]

Application withdrawn by the Project proponent. The case may be delisted.

18.4.18 Group Housing Project at Plot No. Gh-4B, Sector-10, Greater Noida, Gautam Budh Nagar, Uttar Pradesh by M/s Prosper Buildtech Pvt. Ltd – Environmental Clearance (IA/UP/NCP/64499/2017; F.No.21-155/2017-IA-III)

The project proponent made a presentation and provided the following information to the Committee:-

- (i) The present proposal is for development of a group housing at plot no. GH-04B, sector-10, Greater Noida, Uttar Pradesh on a total plot area of 20240.00 sqm and total built up area is 117575.43 sqm.
- (ii) Proposed project include construction of multi-storeyed residential with community facilities. Adequate parking 978 ECS is proposed on surface, stilt & basements for visitors as well as residents. Community facilities include club house, parks, and gardens. A total of 6651 sqm is to be developed as landscape area. The project envisages construction of 13 (11 Residential+ 2 facility blocks) of 2B+ST+22 floors. Total population of the proposed project will be 5127 which include the population of residents, community and visitors.

- (iii) The total water requirement for the project has been estimated to be 417 KLD. This includes domestic water requirement, flushing, D.G. cooling and landscaping. The total fresh water requirement is 282 KLD which includes domestic water requirement. The water requirement for flushing and landscaping will be met through treated water from STP.
- (iv) Total waste water generated is 326 KLD, which will be treated in onsite STP. The treated water will be recycled and re-used for flushing, D.G. cooling and landscaping.
- (v) The total electrical load demand has been estimated to be 2680 KW for the proposed project. The source of power will be from Uttar Pradesh Power Corporation Ltd.
- (vi) In case of power failure, DG sets of total capacity of 2010 KVA (1x1010+2x500) for the proposed project will be provided as power back-up.
- (vii) The domestic solid waste will be generated by the occupants of the residents, visitors and people coming to community area will pertain to the two categories, Bio-degradable and Non-biodegradable. It is estimated that maximum solid waste generation would be about 2.23 TPD for the proposed project and 117.4 kg of sludge will be generated from the proposed project.
- (viii) **Cost of the project** is Rs. 172.00 Crores.
- (ix) **Employment potential:** The project involves labour camp for 150 labours during construction.
- (x) **Benefits of the project:** During operational phase of Group Housing, persons will get employment opportunities as staff for management, maintenance and security. As an estimate, during operation phase, persons will get marginal employment opportunities from the residents of Group Housing who would work as domestic helpers. This will help in improving the quality of life of economically weaker sections of the local area.

The Committee after detailed deliberation on the proposal, 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:

PART A – SPECIFIC CONDITIONS:

I. Construction Phase

- (i) 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.
- (ii) The natural drain system should be maintained for ensuring unrestricted flow of water. No construction shall be allowed to obstruct the natural drainage through the site, on wetland and water bodies. Check dams, bio-swales, landscape, and other sustainable urban drainage systems (SUDS) are allowed for maintaining the drainage pattern and to harvest rain water. Buildings shall be designed to follow the natural topography as much as possible. Minimum cutting and filling should be done.
- (iii) Construction site shall be adequately barricaded before the construction begins. Dust, smoke & other air pollution prevention measures shall be provided for the building as well as the site. These measures shall include screens for the building under construction, continuous dust/ wind breaking walls all around the site (at least 3 meter height). Plastic/tarpaulin sheet covers shall be provided for vehicles bringing in sand, cement, murrum and other construction materials prone to causing dust pollution at the site as well as taking out debris from the site. Sand, murrum, loose soil, cement, stored on site shall be covered adequately so as to prevent dust pollution. Wet jet shall be provided for grinding and stone cutting. Unpaved surfaces and loose soil shall be adequately sprinkled with water to suppress dust.

- (iv) All construction and demolition debris shall be stored at the site (and not dumped on the roads or open spaces outside) before they are properly disposed. All demolition and construction waste shall be managed as per the provisions of the Construction and Demolition Waste Rules, 2016. All workers working at the construction site and involved in loading, unloading, carriage of construction material and construction debris or working in any area with dust pollution shall be provided with dust mask.
- (v) At least 20% of the open spaces as required by the local building bye-laws shall be pervious. Use of Grass pavers, paver blocks with at least 50% opening, landscape etc. would be considered as pervious surface.
- (vi) Compliance with the Energy Conservation Building Code (ECBC) of Bureau of Energy Efficiency shall be ensured. Buildings in the States which have notified their own ECBC, shall comply with the State ECBC. Outdoor and common area lighting shall be LED. Concept of passive solar design that minimize energy consumption in buildings by using design elements, such as building orientation, landscaping, efficient building envelope, appropriate fenestration, increased day lighting design and thermal mass etc. shall be incorporated in the building design. Wall, window, and roof u-values shall be as per ECBC specifications.
- (vii) Use of water saving devices/ fixtures (viz. low flow flushing systems; use of low flow faucets tap aerators etc) for water conservation shall be incorporated in the building plan.
- (viii) Installation of dual pipe plumbing for supplying fresh water for drinking, cooking and bathing etc and other for supply of recycled water for flushing, landscape irrigation, car washing, thermal cooling, conditioning etc. shall be done.
- (ix) Separation of grey and black water should be done by the use of dual plumbing system. In case of single stack system separate recirculation lines for flushing by giving dual plumbing system be done.
- (x) Sewage shall be treated in the STP based on MBBR technology (with tertiary treatment i.e. Ultra Filtration). The treated effluent from STP shall be recycled/re-used for flushing, horticulture & DG cooling.
- (xi) 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. As proposed, 5 RWH tanks of total 5776.9 cum per year capacity shall be provided for storm water recharging to ground as per CGWB guidelines
- (xii) 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 (OWC). As proposed, 125 m² of space shall be provided for OWC within the premises which will include area for segregation, composting. The inert waste from group housing project will be sent to dumping site.
- (xiii) Solar based electric power shall be provided to each unit for at least two bulbs/light and one fan. As proposed, central lighting and street lighting shall also be based on solar power.
- (xiv) A First Aid Room shall be provided in the project both during construction and operations of the project.
- (xv) Topsoil should be stripped to a depth of 20 cm from the areas proposed for buildings, roads, paved areas, and external services. It should be stockpiled appropriately in designated areas and reapplied during plantation of the proposed vegetation on site.
- (xvi) Disposal of muck during construction phase shall not create any adverse effect on the neighboring communities and be disposed taking the necessary precautions for general

safety and health aspects of people, only in approved sites with the approval of competent authority.

- (xvii) The diesel generator sets to be used during construction phase shall be low sulphur diesel type and shall conform to Environmental (Protection) prescribed for air and noise emission standards.
- (xviii) Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.
- (xix) As proposed, no ground water shall be used during construction/ operation phase of the project.
- (xx) Approval of the CGWA require before any dewatering for basements.
- (xxi) 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.
- (xxii) Any hazardous waste generated during construction phase, shall be disposed off as per applicable rules and norms with necessary approvals of the State Pollution Control Board.
- (xxiii) Vehicles hired for bringing construction material to the site should be in good condition and should have a pollution check certificate and should conform to applicable air and noise emission standards be operated only during non-peak hours.
- (xxiv) An assessment of the cumulative 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 05 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 implemented to the satisfaction of the State Urban Development and Transport Departments shall also include the consent of all the concerned implementing agencies.
- (xxv) Ambient noise levels shall conform to residential standards both during day and night as per Noise Pollution (Control and Regulation) Rules, 2000. Incremental pollution loads on the ambient air and noise quality shall be closely monitored during construction phase. Adequate measures shall be made to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by CPCB / SPCB.
- (xxvi) Use of environment friendly materials in bricks, blocks and other construction materials, shall be required for at least 20% of the construction material quantity. These include Fly Ash bricks, hollow bricks, AACs, Fly Ash Lime Gypsum blocks, Compressed earth blocks, and other environment friendly materials. Fly ash should be used as building material in the construction as per the provision of Fly Ash Notification of September, 1999 and amended as on 27th August, 2003 and 25th January, 2016. Ready mixed concrete must be used in building construction.
- (xxvii) A comprehensive mobility plan, as per MoUD best practices guidelines (URDPFI), shall be prepared to include motorized, non-motorized, public, and private networks. Road should be designed with due consideration for environment, and safety of users. The road system can be designed with these basic criteria.
 - Hierarchy of roads with proper segregation of vehicular and pedestrian traffic.
 - Traffic calming measures
 - Proper design of entry and exit points.
 - Parking norms as per local regulation

II. Operational Phase

- (i) The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution. Low sulphur diesel shall be used. The location of the DG set and exhaust pipe height shall be as per the provisions of the Central Pollution Control Board (CPCB) norms.
- (ii) For indoor air quality the ventilation provisions as per National Building Code of India.
- (iii) Fresh water requirement from Municipal Water Supply shall not exceed 282 m³/day.
- (iv) The quantity of fresh water usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance as projected by the project proponent. The record shall be submitted to the Regional Office, MoEF&CC along with six monthly Monitoring reports.
- (v) The installation of the Sewage Treatment Plant (STP) shall be certified by an independent expert and a report in this regard shall be submitted to the Ministry before the project is commissioned for operation. Periodical monitoring of water quality of treated sewage shall be conducted. Necessary measures should be made to mitigate the odour problem from STP.
- (vi) No sewage or untreated effluent water would be discharged through storm water drains.
- (vii) Sludge from the onsite sewage treatment, including septic tanks, shall be collected, conveyed and disposed as per the Ministry of Urban Development, Central Public Health and Environmental Engineering Organization (CPHEEO) Manual on Sewerage and Sewage Treatment Systems, 2013.
- (viii) The provisions of the Solid Waste (Management) Rules, 2016, e-Waste (Management) Rules, 2016, and the Plastics Waste (Management) Rules, 2016 shall be followed.
- (ix) Solar power shall be used for lighting in the apartment to reduce the power load on grid. Separate electric meter shall be installed for solar power. Solar water heaters shall be used to meet hot water demand, as far as possible.
- (x) Energy conservation measures like installation of CFLs/ LED for the lighting the area outside the building should be integral part of the project design and should be in place before project commissioning. Used CFLs, TFL and LED shall be properly collected and disposed off/sent for recycling as per the prevailing guidelines/rules of the regulatory authority to avoid mercury contamination.
- (xi) A minimum of 1 tree for every 80 sq.mt. 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. Area earmarked for greenbelt is 6651 sqm (approx. 32.86 % of Plot Area).
- (xii) The company will draw up and implement a Corporate Social Responsibility plan as per the Company's Act of 2013.
- (xv) An environmental management plan (EMP) shall be prepared and implemented to ensure compliance with the environmental conditions specified above. 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, 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.

Day 3: Saturday, 27th May, 2017

18.05.01 Group housing at Plot no. GH-06/B, Tech Zone-4, Greater Noida, U.P by M/s Elegant Infracon Pvt. Ltd – Environmental Clearance - [F.No.21-134/2017-IA-III] [IA/UP/NCP/63912/2017]

The project proponent made a presentation and provided the following information to the Committee:-

- (i) M/s Elegant Infracon Pvt. Ltd proposes for Expansion of group housing project “Elegant Ville” at Plot No. Gh-06/B, Tech Zone-4, Greater Noida, Uttar Pradesh on a total plot area of 17700 sq m and total built up area is 89373.54 sqm.
- (ii) Proposed project include construction of multi-storeyed residential with community facilities. Adequate parking 777 ECS is proposed on surface, Stilt, Podium & basements for visitors as well as residents. Community facilities include club house, parks, and gardens. A total of 7036.89 sqm is to be developed as landscape area.
- (iii) The project envisages construction of 6 Nos. of building blocks of B+ST+24 floors. Total population of the proposed project will be 4202 which include the population of residents, community and visitors.
- (iv) The total water requirement for the project has been estimated to be 356 KLD. This includes domestic water requirement, flushing, D.G. cooling and landscaping. The total fresh water requirement is 254 KLD which includes domestic water requirement. The water requirement for flushing, DG Cooling and landscaping will be met through treated water from STP.
- (v) Total waste water generated is 277 KLD, which will be treated in onsite STP. The treated water will be recycled and re-used for flushing, D.G. cooling and landscaping and excess treated water of 119 KLD will be used for nearby construction site or will discharge to sewer with prior permission of competent authority.
- (vi) The total electrical load demand has been estimated to be 5517 KW for the proposed project. The source of power will be from Uttar Pradesh Power Corporation Ltd. In case of power failure, DG sets of total capacity of 2600 KVA for the proposed project will be provided as power back-up.
- (vii) The domestic solid waste will be generated by the occupants of the residents, visitors and people coming to community area will pertain to the two categories, Bio-degradable and Non-biodegradable. It is estimated that maximum solid waste generation would be about 1.90 TPD for the proposed project and 99.6 kg of sludge will be generated from the proposed project.
- (viii) Cost of the project is Rs. 107.25 Crore
- (ix) Employment generation: The project involves labour camp during construction. During operational phase of Group Housing, persons will get employment opportunities as staff for management, maintenance and security.
- (x) Benefit of the Project: The project being a well-planned activity will result in organized open spaces and green areas. The biodiversity in the area will increase due to proposed green areas. Community cum recreational facilities will be developed hence no stress on the existing facility is anticipated.

During the deliberation, the Committee noted that this is an expansion project and the Project Proponent has not submitted Certified Compliance Report of the conditions stipulated in the earlier environmental clearance issued for the project.

After detailed deliberation, the Committee sought following additional information:

- (i) Certified compliance report issued by the MoEF&CC Regional Office, Lucknow on environmental conditions stipulated in the existing environmental clearance.
- (ii) Give a conformity status to conditions stipulated in Annexure XIV of the amended EIA Notification vide S.O. 3999 (E) dated 09.12.2016.
- (iii) Notarized affidavit of undertaking by Board of Director(s) stating, no construction activity has commenced at the site and Project Proponent undertakes that the construction works will be commenced only after obtaining all necessary clearances from statutory authorities.
- (iv) Submit an assessment of the cumulative impact of expansion and increased inhabitation being carried out or proposed to be carried out by the project for traffic densities and parking capabilities in a 5 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 also be submitted.
- (v) Compliance report of ECBC norms.

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

18.05.02 Proposed ‘Mahagun Mall’ at Plot No. C-2, Sector-16 B, Greater Noida, Uttar Pradesh by M/s Mahagun Real Estate Pvt. Ltd– Environmental Clearance-[F.No.21-135/2017-IA-III] [IA/UP/NCP/64034/2017]

The project proponent made a presentation and provided the following information to the Committee:-

- (i) A Commercial complex “MAHAGUN MALL” is proposed at plot no. C-2, Sector-16B, Greater Noida. The project will be developed by M/s Mahagun Real Estate Private Limited at a total plot area of 18694 Sq. m. The built-up area of the project is 110702.859 sqm. Hence, it falls under category 8 (a) of EIA notification, 2006. The Activity proposed in the project will be Hotel and shops, Anchor, Hyper, Family Entertainment Center, Restaurant, Auditorium.

PARTICULARS	Area Details
Plot Area	18694 sqm
Ground coverage (Permissible)	7477.6 sqm (40%)
Ground Coverage (Achieved)	7472.206 sqm (39.97%)
FAR (Permissible)	74776 sqm (4.0)
FAR (Proposed)	69889.32 sqm (3.73)
Permissible services area (15% of FAR)	11216.4 sqm
Proposed service area in sq m	7061.269 sqm
NON-FAR AREA (including basement and service area)	
Lower Ground Floor Area	2039.233 sqm
Upper Basement Area	14880.341 sqm
Lower Basement Area	15295.979 sqm
Service Floor Area	1536.717 sqm
Total Non-FAR	33752.27 sqm
Built-up Area in sq m (FAR+NON-FAR) (A+B)	110702.859 sqm
Green Area	5615.51 sqm (30.04%)

- (ii) The project will be located at **Latitude-** 28°36'23.79"N and **longitude-** 77°26'44.91"E.
- (iii) The project proponent has submitted EC application on UP state Portal on 04-01-2017. But the case was not considered and now the tenure of the SEAC, UP has been dissolved thus, we had applied case in MoEF&CC. The online application for the grant of Environment Clearance has been submitted on 18.04.2017.
- (iv) The ground coverage will be 7472.206 sqm. The FAR achieved of the project will be 69889.32 sqm. There will be 1 Lower Ground Floor and 2 basements of area 2039.233 sqm and 30176.32. Non-FAR area will be 33752.27 sqm. The total built-up area will be 110702.859 sqm. Maximum no. of floors will be 2B+LG+G+15 and maximum height of building will be 82 m. Total population of the complex will be 5810 Nos (Guests in Hotel- 310, Staff- 500, visitors- 5000 Nos.).
- (v) The green development area will be kept as 5615.51 sqm (30.04%).
- (vi) The total water requirement will be 497 KLD. The source of water will be Greater Noida Authority. The total waste water generation will be 177 KLD. The waste water shall be treated through Sewage Treatment Plant (STP-MBBR Technology) capacity 320 KLD. 168 KLD treated water will be reused in flushing, gardening, D.G. Cooling, HVAC cooling and miscellaneous purposes. No excess water will be discharged to sewer. 6 No. of RWH pits shall be provided for storm water recharging to ground.
- (vii) The total power requirement will be 5661 KW which will be provided by State Electricity Board (UP). D.G. Set of capacities 5x1500 KVA (2X1500KVA Standby) and 1x750 KVA shall be installed in acoustically enclosure with anti-vibration pads and shall be used during Power failure only. Hence, to avoid the emissions, stack height of 6 m above roof level for D.G. sets of capacities 1500 KVA and 750 KVA shall be installed to reduce the air emissions, meeting all the norms prescribed by CPCB.
- (viii) Parking Requirement is 1496 ECS. Parking Proposed is 1509 ECS which shall be provided as Upper Basement, Lower Basement and Open Surface Parking.
- (ix) About 3174 Kg/day Municipal solid waste will be generated from the project. The biodegradable waste of 2222 Kg/ day shall be treated in 2 no. of Organic Waste Converter provide within the project site, recyclable waste generated 952 kg/day will be handed over to authorized recycler.
- (x) Used Oil of 32 lit/month shall be collected in leak proof containers at isolated place and then it will be given to approved recycler. E- Waste of 2 kg/ month will be collected and given to approved recycler.
- (xi) Cost of the project is Rs. 408 Crore
- (xii) Employment potential – Labourers during construction phase 150 no. and about 500 personnel as staff during operation phase.
- (xiii) Benefits of the project: – It will increase Infrastructure of the area & will provide better shopping environment and will increase the livelihood of the people. It will provide healthy, green & safe premises for people. People will be away from traffic, pollution and congestion. People have more open and green spaces, bringing them closer to nature. People will have immediate access to shopping and entertainment facilities in a single, spacious and secured area. The benefits relate to the direct employment associated during the construction of the infrastructure in the complex and for staff in the shopping complex. Additional employment opportunities will lead to a rise in the income and improve their standard of living.

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

PART A – SPECIFIC CONDITIONS:

I. Construction Phase

- (i) 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.
- (ii) The natural drain system should be maintained for ensuring unrestricted flow of water. No construction shall be allowed to obstruct the natural drainage through the site, on wetland and water bodies. Check dams, bio-swales, landscape, and other sustainable urban drainage systems (SUDS) are allowed for maintaining the drainage pattern and to harvest rain water. Buildings shall be designed to follow the natural topography as much as possible. Minimum cutting and filling should be done.
- (iii) Construction site shall be adequately barricaded before the construction begins. Dust, smoke & other air pollution prevention measures shall be provided for the building as well as the site. These measures shall include screens for the building under construction, continuous dust/ wind breaking walls all around the site (at least 3 meter height). Plastic/tarpaulin sheet covers shall be provided for vehicles bringing in sand, cement, murrum and other construction materials prone to causing dust pollution at the site as well as taking out debris from the site. Sand, murrum, loose soil, cement, stored on site shall be covered adequately so as to prevent dust pollution. Wet jet shall be provided for grinding and stone cutting. Unpaved surfaces and loose soil shall be adequately sprinkled with water to suppress dust.
- (iv) All construction and demolition debris shall be stored at the site (and not dumped on the roads or open spaces outside) before they are properly disposed. All demolition and construction waste shall be managed as per the provisions of the Construction and Demolition Waste Rules, 2016. All workers working at the construction site and involved in loading, unloading, carriage of construction material and construction debris or working in any area with dust pollution shall be provided with dust mask.
- (v) At least 20% of the open spaces as required by the local building bye-laws shall be pervious. Use of Grass pavers, paver blocks with at least 50% opening, landscape etc. would be considered as pervious surface.
- (vi) Compliance with the Energy Conservation Building Code (ECBC) of Bureau of Energy Efficiency shall be ensured. Buildings in the States which have notified their own ECBC, shall comply with the State ECBC. Outdoor and common area lighting shall be LED. Concept of passive solar design that minimize energy consumption in buildings by using design elements, such as building orientation, landscaping, efficient building envelope, appropriate fenestration, increased day lighting design and thermal mass etc. shall be incorporated in the building design. Wall, window, and roof u-values shall be as per ECBC specifications.
- (vii) Use of water saving devices/ fixtures (viz. low flow flushing systems; use of low flow faucets tap aerators etc) for water conservation shall be incorporated in the building plan.
- (viii) Installation of dual pipe plumbing for supplying fresh water for drinking, cooking and bathing etc and other for supply of recycled water for flushing, landscape irrigation, car washing, thermal cooling, conditioning etc. shall be done.
- (ix) Separation of grey and black water should be done by the use of dual plumbing system. In case of single stack system separate recirculation lines for flushing by giving dual plumbing system be done.
- (x) Sewage shall be treated in the STP based on MBBR technology (with tertiary treatment i.e. Ultra Filtration). The treated effluent from STP shall be recycled/re-used for flushing, horticulture & DG cooling.
- (xi) 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. As proposed, 6 nos. of RWH recharge pits shall be installed for harvesting after filtration as per CGWB guidelines

- (xii) 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 (OWC). As proposed, 100 m² of 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.
- (xiii) Solar based electric power shall be provided to each unit for at least two bulbs/light and one fan. As proposed, central lighting and street lighting shall also be based on solar power.
- (xiv) A First Aid Room shall be provided in the project both during construction and operations of the project.
- (xv) Topsoil should be stripped to a depth of 20 cm from the areas proposed for buildings, roads, paved areas, and external services. It should be stockpiled appropriately in designated areas and reapplied during plantation of the proposed vegetation on site.
- (xvi) Disposal of muck during construction phase shall not create any adverse effect on the neighboring communities and be disposed taking the necessary precautions for general safety and health aspects of people, only in approved sites with the approval of competent authority.
- (xvii) The diesel generator sets to be used during construction phase shall be low sulphur diesel type and shall conform to Environmental (Protection) prescribed for air and noise emission standards.
- (xviii) Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.
- (xix) As proposed, no ground water shall be used during construction/ operation phase of the project.
- (xx) Approval of the CGWA require before any dewatering for basements.
- (xxi) 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.
- (xxii) Any hazardous waste generated during construction phase, shall be disposed off as per applicable rules and norms with necessary approvals of the State Pollution Control Board.
- (xxiii) Vehicles hired for bringing construction material to the site should be in good condition and should have a pollution check certificate and should conform to applicable air and noise emission standards be operated only during non-peak hours.
- (xxiv) An assessment of the cumulative 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 05 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 implemented to the satisfaction of the State Urban Development and Transport Departments shall also include the consent of all the concerned implementing agencies.
- (xxv) Ambient noise levels shall conform to residential standards both during day and night as per Noise Pollution (Control and Regulation) Rules, 2000. Incremental pollution loads on the ambient air and noise quality shall be closely monitored during construction phase. Adequate measures shall be made to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by CPCB / SPCB.

- (xxvi) Use of environment friendly materials in bricks, blocks and other construction materials, shall be required for at least 20% of the construction material quantity. These include Fly Ash bricks, hollow bricks, AACs, Fly Ash Lime Gypsum blocks, Compressed earth blocks, and other environment friendly materials. Fly ash should be used as building material in the construction as per the provision of Fly Ash Notification of September, 1999 and amended as on 27th August, 2003 and 25th January, 2016. Ready mixed concrete must be used in building construction.
- (xxvii) A comprehensive mobility plan, as per MoUD best practices guidelines (URDPFI), shall be prepared to include motorized, non-motorized, public, and private networks. Road should be designed with due consideration for environment, and safety of users. The road system can be designed with these basic criteria.
- Hierarchy of roads with proper segregation of vehicular and pedestrian traffic.
 - Traffic calming measures
 - Proper design of entry and exit points.
 - Parking norms as per local regulation

II. Operational Phase

- (i) The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution. Low sulphur diesel shall be used. The location of the DG set and exhaust pipe height shall be as per the provisions of the Central Pollution Control Board (CPCB) norms.
- (ii) For indoor air quality the ventilation provisions as per National Building Code of India.
- (iii) Fresh water requirement from Municipal Water Supply shall not exceed 329 m³/day.
- (iv) The quantity of fresh water usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance as projected by the project proponent. The record shall be submitted to the Regional Office, MoEF&CC along with six monthly Monitoring reports.
- (v) The installation of the Sewage Treatment Plant (STP) shall be certified by an independent expert and a report in this regard shall be submitted to the Ministry before the project is commissioned for operation. Periodical monitoring of water quality of treated sewage shall be conducted. Necessary measures should be made to mitigate the odour problem from STP.
- (vi) No sewage or untreated effluent water would be discharged through storm water drains.
- (vii) Sludge from the onsite sewage treatment, including septic tanks, shall be collected, conveyed and disposed as per the Ministry of Urban Development, Central Public Health and Environmental Engineering Organization (CPHEEO) Manual on Sewerage and Sewage Treatment Systems, 2013.
- (viii) The provisions of the Solid Waste (Management) Rules, 2016, e-Waste (Management) Rules, 2016, and the Plastics Waste (Management) Rules, 2016 shall be followed.
- (ix) Solar power shall be used for lighting in the apartment to reduce the power load on grid. Separate electric meter shall be installed for solar power. Solar water heaters shall be used to meet hot water demand, as far as possible.
- (x) Energy conservation measures like installation of CFLs/ LED for the lighting the area outside the building should be integral part of the project design and should be in place before project commissioning. Used CFLs, TFL and LED shall be properly collected and disposed off/sent for recycling as per the prevailing guidelines/rules of the regulatory authority to avoid mercury contamination.

- (xi) A minimum of 1 tree for every 80 sq.mt. 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. Area earmarked for greenbelt is 5615.51 sqm (30.04%).
- (xii) The company will draw up and implement a Corporate Social Responsibility plan as per the Company's Act of 2013.
- (xiii) An environmental management plan (EMP) shall be prepared and implemented to ensure compliance with the environmental conditions specified above. 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, 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.

18.5.3 Group housing project "Signature Heights" at Khasra No: 977,976,981, Village Noor Nagar, Pargana - Loni, Tah & Dist Ghaziabad, Uttar Pradesh by M/s Annika Promoters Private Limited – Environmental Clearance - [F.No.21-136/2017-IA-III] [IA/UP/NCP/64105/2017]

The project proponent made a presentation and provided the following information to the Committee:-

- (i) The project is for expansion of Group housing project "Signature Heights" at Khasra No: 977, 976, 981, Village Noor Nagar, Pargana - Loni, Tehsil & Distt. Ghaziabad, Uttar Pradesh on a total plot area of 13591.18 sq m and total built up area is 74269.34 sqm.
- (ii) Proposed project is construction of multi-storeyed residential with community facilities. Adequate parking 775 ECS is proposed on surface, Stilt & basements for visitors as well as residents. Community facilities include club house, parks, and gardens. A total of 1382.7 sqm is to be developed as landscape area. The project envisages construction of 7 Nos. of building blocks of B+G+19 floors.
- (iii) The total water requirement for the project has been estimated to be 305 KLD. This includes domestic water requirement, flushing, D.G. cooling and landscaping. The total fresh water requirement is 210 KLD which includes domestic water requirement. The water requirement for flushing, DG Cooling and landscaping will be met through treated water from STP.
- (iv) Total waste water generated is 246 KLD, which will be treated in onsite STP. The treated water will be recycled and re-used for flushing, D.G. cooling and landscaping and excess treated water of 102 KLD will be used for nearby construction site or will discharge to sewer with prior permission of competent authority.
- (v) The total electrical load demand has been estimated to be 2300 KW for the proposed project. The source of power will be from Uttar Pradesh Power Corporation Ltd.
- (vi) In case of power failure, DG sets of total capacity of 2000 KVA (2X500 + 1X1000) for the proposed project will be provided as power back-up.
- (vii) The domestic solid waste will be generated by the occupants of the residents, visitors and people coming to community area will pertain to the two categories, Bio-degradable and Non-biodegradable. It is estimated that maximum solid waste generation would be about 1.70 TPD for the proposed project and 193.2 kg of sludge will be generated from the proposed project.

During the deliberation, the Committee noted that this is an expansion project and the Project Proponent has not submitted Certified Compliance Report of the conditions stipulated in the earlier environmental clearance issued for the project.

After detailed deliberation, the Committee sought following additional information:

- (i) Certified compliance report issued by the MoEF&CC Regional Office, Lucknow on environmental conditions stipulated in the existing environmental clearance.
- (ii) Give a conformity status to conditions stipulated in Annexure XIV of the amended EIA Notification vide S.O. 3999 (E) dated 09.12.2016.
- (iii) Notarized affidavit of undertaking by Board of Director(s) stating, no construction activity has commenced at the site and Project Proponent undertakes that the construction works will be commenced only after obtaining all necessary clearances from statutory authorities.
- (iv) Submit an assessment of the cumulative impact of expansion and increased inhabitation being carried out or proposed to be carried out by the project for traffic densities and parking capabilities in a 5 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 also be submitted.
- (v) Compliance report of ECBC norms.

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

18.5.4 Revision/expansion of Residential Plotted Colony“ SUSHANT CITY” at Village-Rasoi, District- Sonapat, Haryana by M/s Ansal Properties And Infrastructure Ltd – Environmental Clearance - [F.No. 21-144/2017-IA-III] [IA/HR/MIS/61792/2015]

The project proponent made a presentation and provided the following information to the Committee:-

- i. The project is revision/expansion of Residential Plotted Colony “Sushant City”. Environmental Clearance for an area of 250.07 Acres (Phase I) was obtained by MoEF vide letter No. 21-235/ 2006.IA.111 dated 8th January, 2007. The project is located at 28° 54’ 25.66” N Latitude and 77° 07’ 08.71”E Longitude.
- ii. The total plot area is 12,18,639.05 sqm (121 ha) [Existing: 10,12,000 sqm (250.07 acres) & Proposed: 2,06,640.77 sq.m (51.062 acres)]. Total construction area measuring 14,17,055 sqm. of built up area. The project will comprise of Plotted development, commercial & facility buildings. Total 2608 residential plots (Existing: 2125 nos. + Proposed: 468 nos.) shall be developed.

S.No	Particulars	Area Details (acres)
1.	Total Area	310.078
2.	Surrendered area (Sector road/ green belt)	0.3
3.	Area under group housing	5.85
4.	Area under undetermined use	2.946
5.	Net Planned Area	301.132
a.	Area under plotted development	147.4315 (48.96 %)
b.	Area under Commercial use	9.0250 (3 %)

c.	Area under facilities	20.94 (6.95 %)
d.	Green area	45.17 (15 %)
e.	Other areas	78.5655 (26.09 %)
6.	Plot area: 301.132 acre (12, 18,639.05 sq.m.)	
i.	Existing	250.07 acre (10, 12,000 sq.m.)
ii.	Proposed	51.062 acre (2, 06,640.77 sq.m.)

- iii. During construction phase, total water requirement is expected to be 350.00 KLD which will be met by Tanker supply. During the construction phase, soak pits and septic tanks will be provided for disposal of waste water. Temporary sanitary toilets will be provided during peak labor force.
- iv. During operational phase, total water demand of the project is expected to be 6838 KLD, and the same will be met by the bore well. Wastewater generated (4219 KLD) will be treated in 3 STPs of total 4500 KLD cumulative capacity based on FAB Technology. Treated wastewater 3586.00 KLD will be recycled (1930.00 KLD will be used for landscaping & general washing, 1618.00 KLD will be used for flushing and 37.00 KLD will be used for DG cooling).
- v. About 205.02 TPD solid wastes will be generated in the project. The biodegradable waste (82.01 TPD) will be processed in OWC and the non-biodegradable waste generated (123.01 TPD) will be handed over to authorized local vendor.
- vi. Total power requirement during operation phase is 20812.5 KVA and will be met from UHBVN. Rooftop rainwater of buildings will be collected in 386 RWH tanks.
- vii. Parking facility will be available for 7,817 ECS.
- viii. There is no court case pending against the project.
- ix. Employment potential: 500 persons.
- x. Benefits of the project: Direct & Indirect Employment along with better facilities.

During the deliberation, the Committee noted that this is an expansion project and the Project Proponent has not submitted Certified Compliance Report of the conditions stipulated in the earlier environmental clearance issued for the project.

After detailed deliberation, the Committee sought following additional information:

- (i) Certified compliance report issued by the MoEF&CC Regional Office, Chandigarh on environmental conditions stipulated in the existing environmental clearance.
- (ii) Give a conformity status to conditions stipulated in Annexure XIV of the amended EIA Notification vide S.O. 3999 (E) dated 09.12.2016.
- (iii) Notarized affidavit of undertaking by Board of Director(s) stating, no construction activity has commenced at the site and Project Proponent undertakes that the construction works will be commenced only after obtaining all necessary clearances from statutory authorities.
- (iv) Submit an assessment of the cumulative impact of expansion and increased inhabitation being carried out or proposed to be carried out by the project for traffic densities and parking capabilities in a 5 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 also be submitted.
- (v) Compliance report of ECBC norms.

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

18.5.5 Group Housing "Orchid Park" situated at Khasra No: 39, 40Ka, 41Ka, 41Ga, 41Gha, 42Kha, 42Ka, 43Ka, 43Kha, 44, 45Kha, 1078, 1080, 1081, 1082 & 1083, Village Mauza Chalang, Pargana Parwa Doon, Dist. Dehradun by M/s Pushpanjali Realms and Infratech Pvt. Ltd – Environmental Clearance - [F.No. 21-145/2017-IA-III] [IA/UK/MIS/62089/2017]

The Project Proponent has made a presentation before the Committee. The Committee noted that the Project Proponent had not provided sufficient information about the project in Form-I and Form IA.

After detailed deliberation, the Committee sought following additional information:

- (i) Submit revised Form-I and Form-IA.
- (ii) Give details of work already done.
- (iii) Compliance to the conditions of the consent to establish granted by the Environment Protection and Pollution Control Board, Uttarakhand.
- (iv) Give a conformity status to conditions stipulated in Annexure XIV of the amended EIA Notification vide S.O. 3999 (E) dated 09.12.2016.
- (v) Notarized affidavit of undertaking by Board of Director(s) stating, no construction activity has commenced at the site and Project Proponent undertakes that the construction works will be commenced only after obtaining all necessary clearances from statutory authorities.
- (vi) A detailed traffic management and a traffic decongestion plan drawn up through an organization of repute and specializing in Transport Planning shall also be submitted.
- (vii) Compliance report of ECBC norms.
- (viii) Details storm water management plan.

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

18.5.6 Housing Complex at Village Moazzamnagar, Kabirpur, Dularmau, Sultanpur Road, Lucknow, Uttar Pradesh by M/s Shree Hari Barter Ltd – Environmental Clearance - [F.No. 21-146/2017-IA-III] [IA/UP/MIS/63774/2016]

The project proponent made a presentation and provided the following information to the Committee:-

- (i) Housing Complex is proposed at Village — Moazzamnagar, Kabirpur & Dularmau, Sultanpur road, Lucknow, U.P. The project will be developed at a total plot area of 70023.30 sqm. The built-up area of the project is 176858.14 sqm.
- (ii) The application for grant of TOR was submitted on 28.06.2016 to SEAC, U.P., TOR was granted by SEAC, Uttar Pradesh on 06.09.2016. However, 3 months' baseline data was collected for month October-December, 2016. As per EIA Notification, 2006 the project falls under the activity 8 (b), Category B. Due to unavailability of SEAC/SEIAA, UP, EIA with TOR compliance was submitted to MoEF&CC on 06.04.2017.
- (iii) The ground coverage will be 12115.54 sqm. The FAR achieved of the project will be 164595.11 sqm. Non-FAR area other than stilt area will be 2151.27 sqm and including stilt area will be 10111.75 sqm.

- (iv) The green development area will be kept as 13471.925 sqm (20%). Maximum no. of floors will be 5+21 in Sector A, S+14 in sector B and 5+14 in Sector C. The maximum height of building will be 65.73 m. Total population of the complex will be 16623 Nos (Total residents-12580, Floating population-4043 Nos.).
- (v) The total water requirement will be 1229 KLD, The source of water will be Municipal Supply. The total waste water generation will be 1028 KLD. The waste water shall be treated through two Sewage Treatment Plant (STP) capacity of 1115 KLD and 620 KLD. 442 KLD treated water will be reused in flushing, gardening, and miscellaneous purposes. 566 KLD of excess water will be discharged to sewer.
- (vi) 17 No. of RWH pits shall be provided for storm water recharging to ground.
- (vii) The total power requirement will be 7610 KW which will be provided by State Electricity Board (UP). DG set of capacities 2x100 KVA, 1x 82.5 KVA and 1x250 KVA shall be installed in acoustically enclosure with anti-vibration pads and shall be used during Power failure only. Hence, to avoid the emissions, adequate stack height above roof level for D.G. sets shall be installed to reduce the air emissions, meeting all the norms prescribed by CPCB.
- (viii) About 6276 /day Municipal solid waste will be generated from the project. The biodegradable waste of 4393 Kg/ day shall be segregated and treated in Organic Waste Converter and recyclable waste generated 1883 kg/day will be handed over to authorized recycler. Used Oil of 20 lit/month shall be collected in leak proof containers at isolated place and then it will be given to approved recycler. E-Waste of 2 kg/ month will be collected and given to approved recycler.
- (ix) Parking Requirement is 629 ECS and 1258 Scooter Parking. Parking Proposed is 643 ECS and 1981 Scooter Parking.
- (x) The total estimated cost of the project will be Rs. 335.00 Crores.
- (xi) Employment potential: 500 persons.
- (xii) Benefits of the project: Direct & Indirect Employment along with better facilities.

After detailed deliberations, the Committee 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:

PART A – SPECIFIC CONDITIONS:

I. Construction Phase

- (i) 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.
- (ii) The natural drain system should be maintained for ensuring unrestricted flow of water. No construction shall be allowed to obstruct the natural drainage through the site, on wetland and water bodies. Check dams, bio-swales, landscape, and other sustainable urban drainage systems (SUDS) are allowed for maintaining the drainage pattern and to harvest rain water. Buildings shall be designed to follow the natural topography as much as possible. Minimum cutting and filling should be done.
- (iii) Construction site shall be adequately barricaded before the construction begins. Dust, smoke & other air pollution prevention measures shall be provided for the building as well as the site. These measures shall include screens for the building under construction, continuous dust/ wind breaking walls all around the site (at least 3 meter height). Plastic/tarpaulin sheet covers shall be provided for vehicles bringing in sand, cement,

murrum and other construction materials prone to causing dust pollution at the site as well as taking out debris from the site. Sand, murrum, loose soil, cement, stored on site shall be covered adequately so as to prevent dust pollution. Wet jet shall be provided for grinding and stone cutting. Unpaved surfaces and loose soil shall be adequately sprinkled with water to suppress dust.

- (iv) All construction and demolition debris shall be stored at the site (and not dumped on the roads or open spaces outside) before they are properly disposed. All demolition and construction waste shall be managed as per the provisions of the Construction and Demolition Waste Rules, 2016. All workers working at the construction site and involved in loading, unloading, carriage of construction material and construction debris or working in any area with dust pollution shall be provided with dust mask.
- (v) At least 20% of the open spaces as required by the local building bye-laws shall be pervious. Use of Grass pavers, paver blocks with at least 50% opening, landscape etc. would be considered as pervious surface.
- (vi) Compliance with the Energy Conservation Building Code (ECBC) of Bureau of Energy Efficiency shall be ensured. Buildings in the States which have notified their own ECBC, shall comply with the State ECBC. Outdoor and common area lighting shall be LED. Concept of passive solar design that minimize energy consumption in buildings by using design elements, such as building orientation, landscaping, efficient building envelope, appropriate fenestration, increased day lighting design and thermal mass etc. shall be incorporated in the building design. Wall, window, and roof u-values shall be as per ECBC specifications.
- (vii) Use of water saving devices/ fixtures (viz. low flow flushing systems; use of low flow faucets tap aerators etc) for water conservation shall be incorporated in the building plan.
- (viii) Installation of dual pipe plumbing for supplying fresh water for drinking, cooking and bathing etc and other for supply of recycled water for flushing, landscape irrigation, car washing, thermal cooling, conditioning etc. shall be done.
- (ix) Separation of grey and black water should be done by the use of dual plumbing system. In case of single stack system separate recirculation lines for flushing by giving dual plumbing system be done.
- (x) Sewage shall be treated in the STP based on MBBR technology (with tertiary treatment i.e. Ultra Filtration). The treated effluent from STP shall be recycled/re-used for flushing, horticulture & DG cooling.
- (xi) 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. As proposed, 17 No. of RWH pits shall be provided for storm water recharging to ground as per CGWB guidelines
- (xii) 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. As proposed, 400 m² of 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.
- (xiii) Solar based electric power shall be provided to each unit for at least two bulbs/light and one fan. As proposed, central lighting and street lighting shall also be based on solar power.
- (xiv) Motion sensor based lights to be provided in parking areas, corridors, passages, aisles, stairways.

- (xv) A First Aid Room shall be provided in the project both during construction and operations of the project.
- (xvi) Topsoil should be stripped to a depth of 20 cm from the areas proposed for buildings, roads, paved areas, and external services. It should be stockpiled appropriately in designated areas and reapplied during plantation of the proposed vegetation on site.
- (xvii) Disposal of muck during construction phase shall not create any adverse effect on the neighboring communities and be disposed taking the necessary precautions for general safety and health aspects of people, only in approved sites with the approval of competent authority.
- (xviii) The diesel generator sets to be used during construction phase shall be low sulphur diesel type and shall conform to Environmental (Protection) prescribed for air and noise emission standards.
- (xix) Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.
- (xx) As proposed, no ground water shall be used during construction/ operation phase of the project.
- (xxi) Approval of the CGWA require before any dewatering for basements.
- (xxii) 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.
- (xxiii) Any hazardous waste generated during construction phase, shall be disposed off as per applicable rules and norms with necessary approvals of the State Pollution Control Board.
- (xxiv) Vehicles hired for bringing construction material to the site should be in good condition and should have a pollution check certificate and should conform to applicable air and noise emission standards be operated only during non-peak hours.
- (xxv) An assessment of the cumulative 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 05 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 implemented to the satisfaction of the State Urban Development and Transport Departments shall also include the consent of all the concerned implementing agencies.
- (xxvi) Ambient noise levels shall conform to residential standards both during day and night as per Noise Pollution (Control and Regulation) Rules, 2000. Incremental pollution loads on the ambient air and noise quality shall be closely monitored during construction phase. Adequate measures shall be made to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by CPCB / SPCB.
- (xxvii) Use of environment friendly materials in bricks, blocks and other construction materials, shall be required for at least 20% of the construction material quantity. These include Fly Ash bricks, hollow bricks, AACs, Fly Ash Lime Gypsum blocks, Compressed earth blocks, and other environment friendly materials. Fly ash should be used as building material in the construction as per the provision of Fly Ash Notification of September, 1999 and amended as on 27th August, 2003 and 25th January, 2016. Ready mixed concrete must be used in building construction.
- (xxviii) A comprehensive mobility plan, as per MoUD best practices guidelines (URDPFI), shall be prepared to include motorized, non-motorized, public, and private networks. Road should be designed with due consideration for environment, and safety of users. The road system can be designed with these basic criteria.
- Hierarchy of roads with proper segregation of vehicular and pedestrian traffic.
 - Traffic calming measures

- Proper design of entry and exit points.
- Parking norms as per local regulation

II. Operational Phase

- (i) The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution. Low sulphur diesel shall be used. The location of the DG set and exhaust pipe height shall be as per the provisions of the Central Pollution Control Board (CPCB) norms.
- (ii) For indoor air quality the ventilation provisions as per National Building Code of India.
- (iii) Fresh water requirement from Municipal Water Supply shall not exceed 787 m³/day.
- (iv) The quantity of fresh water usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance as projected by the project proponent. The record shall be submitted to the Regional Office, MoEF&CC along with six monthly Monitoring reports.
- (v) The installation of the Sewage Treatment Plant (STP) shall be certified by an independent expert and a report in this regard shall be submitted to the Ministry before the project is commissioned for operation. Periodical monitoring of water quality of treated sewage shall be conducted. Necessary measures should be made to mitigate the odour problem from STP.
- (vi) No sewage or untreated effluent water would be discharged through storm water drains.
- (vii) Sludge from the onsite sewage treatment, including septic tanks, shall be collected, conveyed and disposed as per the Ministry of Urban Development, Central Public Health and Environmental Engineering Organization (CPHEEO) Manual on Sewerage and Sewage Treatment Systems, 2013.
- (viii) The provisions of the Solid Waste (Management) Rules, 2016, e-Waste (Management) Rules, 2016, and the Plastics Waste (Management) Rules, 2016 shall be followed.
- (ix) Solar power shall be used for lighting in the apartment to reduce the power load on grid. Separate electric meter shall be installed for solar power. Solar water heaters shall be used to meet hot water demand, as far as possible.
- (x) Energy conservation measures like installation of CFLs/ LED for the lighting the area outside the building should be integral part of the project design and should be in place before project commissioning. Used CFLs, TFL and LED shall be properly collected and disposed off/sent for recycling as per the prevailing guidelines/rules of the regulatory authority to avoid mercury contamination.
- (xi) A minimum of 1 tree for every 80 sq.mt. 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. Area earmarked for greenbelt is 13471.925 sqm (20%).
- (xii) The company will draw up and implement a Corporate Social Responsibility plan as per the Company's Act of 2013.
- (xiii) An environmental management plan (EMP) shall be prepared and implemented to ensure compliance with the environmental conditions specified above. 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, 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.

18.5.7 Expansion of Group Housing Colony “Mahagun Mezzaria” at Sector-78, Noida by M/s Nexgen Infracon Pvt. Ltd – Environmental Clearance [F.No.21-147/2017-IA-III] [IA/UP/NCP/62797/2016]

The project proponent made a presentation and provided the following information to the Committee:-

- (i) The proposed project is an expansion of Group Housing “Mahagun Mezzaria” located at Plot No GH-01, Sector 78, Noida, U.P. and being developed by M/s Nexgen Infracon Pvt. Ltd. Project had already been granted Environment Clearance vide letter no. 785/1345/SEAC/2010/AD(H) Dated 10.07.2013 for the plot area 40,468.5 sq.m and built up area 1,87,404.51 sq m. The total built-up area after expansion will be 2,25,515.74 sqm. The green belt development area will be kept as 17,972.91 sqm (44.4%) after expansion. Maximum no. of floors will be 2B+G+34 for complex and maximum height of building will be 139 m.
- (ii) The application for grant of TOR was submitted on 16-08-2016 to SEIAA, U.P., TOR was granted by SEAC, Uttar Pradesh on 20/09/2016. However, 3 months’ baseline data was collected for month October- December, 2016.
- (iii) The ground coverage after expansion will be 5558.1 sqm (13.7%). The Total FAR of the proposed complex after expansion will be 1,42,950.66 sqm (3.53%). There will be 2 level of basement of area 61,099.66 sqm and other Non-FAR area will be 21465.42 sqm. Total population of the complex after expansion will be 5740 Nos. (Resident- 5026, Staff- 214 Nos., visitors- 500 Nos.)
- (iv) The total water requirement after expansion will be 502 KLD. The source of water will be Noida Supply. The total waste water generation will be 393 KLD. The waste water shall be treated through Sewage Treatment Plant (STP) of total capacity 600 KLD. 184 KLD treated water will be reused in flushing, gardening & cooling. Remaining 189 KLD of treated water will be discharged to sewer. 7 No. of RWH pits shall be provided for storm water recharging to ground.
- (v) The total power requirement after expansion will be 3500 KW which is being provided by UP State Electricity Board. D.G. Set of capacities 2 X 2000 KVA and 1 X 1010 KVA shall be installed. Hence, to avoid the emissions, stack height of 6 m above roof level for each D.G. sets shall be installed to reduce the air emissions, meeting all the norms prescribed by CPCB.
- (vi) About 2369 Kg/day Municipal solid waste will be generated in the project after expansion. The biodegradable waste (1658 Kg/ day) shall be treated in Organic Waste Convertor provide within the complex, recyclable waste generated (711 Kg/day) will be handed over to authorized recycler. Used Oil of 62 lit/month shall be collected in leak proof containers at isolated place and then it will be given to approved recycler. E- Waste of 2 kg/ month will be collected and given to approved recycler.
- (vii) About 2369 Kg/day Municipal solid waste shall be generated in the project after expansion. The biodegradable waste (1658 Kg/ day) shall be treated in Organic Waste Convertor provide within the complex, recyclable waste generated (711 Kg/day) handed over to authorized recycler. Used Oil of 62 lit/month is being collected in leak proof containers at isolated place and then given to approved recycler. E- Waste of 2 kg/ month is being collected and given to approved recycler.
- (viii) Parking Requirement is 1789 ECS. 1906 ECS parking are provided as Basement parking (upper basement & Lower Basement).

- (ix) Cost of the project is Rs. 861 Crores.
- (x) **Employment potential** – Labourers during construction phase 150 no. and about 214 personnel as staff during operation phase.
- (xi) **Benefits of the project:** – It will increase Infrastructure of the area & will provide housing facility, educational facility, commercial area and open space with all other basic amenities to various classes of people.

During the deliberation, the Committee noted that this is an expansion project and the Project Proponent has not submitted Certified Compliance Report of the conditions stipulated in the earlier environmental clearance issued for the project.

After detailed deliberation, the Committee sought following additional information:

- (i) Certified compliance report issued by the MoEF&CC Regional Office, Lucknow on environmental conditions stipulated in the existing environmental clearance.
- (ii) A break up showing plot area and built up area in a tabular form to be submitted showing as per earlier EC, Constructed as per EC, proposed changes due to expansion in the previous conceptual plan and proposed plan and fina/ultimatel built up area.
- (iii) Give a conformity status to conditions stipulated in Annexure XIV of the amended EIA Notification vide S.O. 3999 (E) dated 09.12.2016.
- (iv) Notarized affidavit of undertaking by Board of Director(s) stating, no construction activity has commenced at the site and Project Proponent undertakes that the construction works will be commenced only after obtaining all necessary clearances from statutory authorities.
- (v) Submit an assessment of the cumulative impact of all redevelopment and increased inhabitation being carried out or proposed to be carried out by the project or other agencies in the core area, shall be made for traffic densities and parking capabilities in a 05 kms. radius from the site. A detailed traffic management and a traffic decongestion plan drawn up through an organisation of repute and specialising in Transport Planning shall be implemented to the satisfaction of the State Urban Development and Transport Departments and shall also include the consent of all the concerned implementing agencies. The project proponents will obtain a certificate from the Transport Department that the incremental traffic from the operation of the project will be within the carrying capacity of feeder roads.
- (vi) Compliance report of ECBC norms.

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

18.5.8 Expansion of group housing colony at Sector – 48, Sohna Road, Gurgaon by M/s Sweta Estates Pvt Ltd – Environmental Clearance - [F.No.21-148/2017-IA-III] [IA/HR/NCP/62973/2015]

The project proponent made a presentation and provided the following information to the Committee:-

- (i) The proposed project is for “Expansion of Group Housing Colony” located at Sector -48, Sohna Road, Gurgaon, Haryana and being developed by M/s Sweta Estates Pvt. Ltd. Project had already been granted Environment Clearance vide letter no. 21-563/2006-IA III dated 10.04.2007 from SEIAA, Haryana, for the development of the “Group Housing Colony” at Sector-48, Sohna Road, Gurgaon, Haryana for plot area 192334.638 Sqm & built up area of 331520 Sqm excluding (Basement and Non-FAR) for 28 towers.

(ii) The project include various activities i.e. Dwelling Units, EWS, Service personnel Unit, Commercial, Club House, Nursery School & Primary school. The details are as follows:

Description	EC Received	Already Constructed	Additional	Total After Expansion
Plot Area	192334.639 sqm (47.527 acres)	191893.533 sqm		191893.533 sqm (47.418 acres)
Area Under Road	2714.51 sqm	1491.59 sqm		1491.59 sqm
Net Plot Area	189620.13 sqm	190401.943 sqm		190401.943 sqm
Ground Coverage (Permissible)	67317.124 sqm (35%)	67162.736 sqm (35%)		67162.736 sqm (35%)
Ground Coverage (Proposed)	21309.10 sqm (11.23%)	18732.681 sqm	2576.419 sqm	21309.10 sqm (11.19%)
FAR (Permissible)	336585.619 sqm (175)	-		335813.683 sqm (175)
FAR (Proposed)	331520 sqm (172.4)	272932.438 sqm (142.231)	62881.245 sqm (32.768)	335813.683 sqm (175)
Green Area	57700 (30%)	57874.02 (30.39%)		57874.02 (30.39%)

(iii) The Environmental Clearance application for Expansion of Group Housing Colony was submitted to SEIAA, Haryana on 02/11/2015. Terms of Reference has been granted to us vide letter no. H.R/SEAC/194/606 dated 10/02/2016 by SEAC, Haryana. EIA report with TOR was submitted to Haryana SEAC on 17.06.2016 with baseline data of summer season (March-May 2016). Our case was discussed in 137th and 138th meeting held on 28/07/2016 and 4/08/2016 and referred to SEIAA Haryana. After that, the case was discussed by SEIAA in its 95th and 100th meeting held on 26/08/2016 and 01/03/2017 and the case is referred to MOEF&CC.

(iv) The estimated project cost will be Rs. 394.40 Crores. The ground coverage after expansion will be 21309.10 sqm (11.19%). The Total FAR of the proposed after expansion will be 335813.683 sqm. There will be 2 level of basement of total area 208646.131 sqm, School (Primary & Nursery) – Non FAR will be 9664.62 sqm & other Non-FAR area will be 8017.305 sqm. The total built-up area after expansion will be 562141.739 sqm. Total population of the complex after expansion will be 9985 Nos. (Residents- 9385, Staff- 100 Nos., visitors- 500 Nos.)

(v) The green belt development area will be kept as 57874.02 sqm (30.39 %) after expansion. Maximum no. of floors will be 2B+G+32 for complex.

(vi) The total water requirement after expansion will be 1770 KLD. The source of water will be HUDA Supply. The total waste water generation will be 1118 KLD. The waste water shall be treated through Sewage Treatment Plant (STP) of total capacity 1375 KLD (MBBR Technology). 879 KLD treated water will be reused in flushing, gardening & D.G. Cooling. Remaining 181 KLD of treated water will be discharged to sewer. 32 No. of RWH pits shall be provided for storm water recharging to ground.

(vii) The total power requirement after expansion will be 13290 KW which will be provided by Dakshin Haryana Bijli Vitran Nigam Limited. D.G. Set of capacities 11 x 1010 KVA, 4 x 1250 KVA & 4 x 2000 KVA shall be installed and will be kept acoustically enclosed & installed with anti-vibration pads. It will be used during Power failure only. Hence, to

avoid the emissions, stack height of 6 m above roof level for each D.G. sets has been installed to reduce the air emissions, meeting all the norms prescribed by CPCB.

- (viii) About 3935 Kg/day Municipal solid waste will be generated from the project after expansion. The biodegradable waste (2754 Kg/ day) shall be treated in Organic Waste Converter provide within the complex, recyclable waste generated (1181 Kg/day) will be handed over to authorized recycler. Used Oil of 190 lit/month shall be collected in leak proof containers at isolated place and then it will be given to approved recycler. E- Waste of 2 kg/ month will be collected and given to approved recycler.
- (ix) Parking Requirement for the project is 3160 ECS. 3566 ECS parking shall be provided as Basement parking (first basement, second basement & third Basement), Podium parking & stilt parking.

During the deliberation, the Committee noted that this is an expansion project. Regional Office, MoEF&CC, Chandigarh issued certified compliance report on 30.11.2015 in respect to the environmental clearance earlier issued by MoEF&CC vide letter no. 21-263/2006-IA-III dated 10.04.2007. Committee noted that the compliance report was issued for extension of validity of EC issued earlier.

After detailed deliberation, the Committee sought following additional information:

- (i) Latest certified compliance report issued by the MoEF&CC Regional Office, Chandigarh on environmental conditions stipulated in the existing environmental clearance.
- (ii) Latest compliance status with regards to the certified compliance report of 30.11.2015 especially where the project proponents have given assurances for compliance not complied or partially complied.
- (iii) The present status of operation of the 300 KLD and 100 KLD STP's and the fourth STP of 300 KLD also.
- (iv) The current status on storm water disposal.
- (v) Give a conformity status to conditions stipulated in Annexure XIV of the amended EIA Notification vide S.O. 3999 (E) dated 09.12.2016.
- (vi) Submit an assessment of the cumulative impact of all redevelopment and increased inhabitation being carried out or proposed to be carried out by the project or other agencies in the core area, shall be made for traffic densities and parking capabilities in a 05 kms. radius from the site. A detailed traffic management and a traffic decongestion plan drawn up through an organisation of repute and specialising in Transport Planning shall be implemented to the satisfaction of the State Urban Development and Transport Departments and shall also include the consent of all the concerned implementing agencies. The project proponents will obtain a certificate from the Transport Department that the incremental traffic from the operation of the project will be within the carrying capacity of feeder roads.
- (vii) Compliance report of ECBC norms.

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

18.5.9 Environmental Clearance for “Ganga Legend” residential development at Tal Mulshi, Dist. Pune, Maharashtra by M/s. Goel Ganga (I) Pvt Ltd – Environmental Clearance (IA/MH/NCP/61008/2016; F.No. 21-81/2016-IA-III)

The project proponent made a presentation and provided the following information to the Committee:-

- (i) The project is for Expansion of residential project “Ganga legend” of the Plot bearing S.No.305/2,305/3,305/4(P),305/5,305/6,306/1,306/2, 306/3(P), 339/1/1(P), 339/1/2, 339/1/3(P), 339/2, 339/3(P), 339/4/1(P), 339/4/2, 339/5, 339/6/1, 339/6/2, 339/6/3, 339/7, 339/8, 339/9/1(P), 339/10, 339/11/2, 339/12(P), 339/13A, 339/13B at Tal. Mulshi, Dist. Pune, State-Maharashtra. The details of the project are:

No.	Description	Area (m ²)
1	Total Plot Area	1,12,179.00
2	Ground Coverage Area	10,947.66
3	R.G. Area (on ground)	7940.88
4	Additional Open Space on Ground	45833.06
5	Proposed Built - up Area as per FSI	1,71,590.33
6	Proposed Built - up Area as per Non-FSI	1,55,358.23
7	Total Construction Built-up Area (FSI + Non FSI)	3,26,948.56

- (ii) Total fresh water requirement will be 1172 m³/day (Domestic + Swimming Pool Makeup).
- (iii) During operational phase, total water demand of the project is expected to be 2039 KLD and out of the total 1154 KLD will be met by Gram Panchayat Bavdhan for domestic use, 18 KLD by Potable water tankers and rest and the rest 867 KLD will be met by recycled water. Waste water generated (1560 KLD) uses will be treated in one STP of total 1570 KLD capacity. 867 KLD of treated waste water will be recycled (557 for flushing, 310 for gardening). About 537 KLD will be disposed into Gram Panchayat sewer line.
- (iv) About 5.5 TPD solid wastes will be generated in the project. The biodegradable waste (3.38 TPD) will be processed in OWC and the non- biodegradable waste generated (1.68 TPD) will be handed over to PMC.
- (v) Sewage generation will be total 1560 m³/day which will be treated in STP of capacity 1570 m³ (STP technology :-RMBR)
- (vi) Municipal solid waste generated: Non-Biodegradable (Kg/day):- 1681, Biodegradable (Kg/day): -3890 and no STP sludge will be there.
- (vii) **Cost of the project** is Rs.620 Crores.
- (viii) Tor was recommended to the project by the Expert Appraisal Committee (Infra-2) in its meeting held on 23rd-25th January,2017.
- (ix) **Benefits of the project:** It will create job opportunity for support staff like Security, Maintenance, household workers etc.
- (x) **Employment potential:** It will create job opportunity for support staff like Security, Maintenance, household workers etc.

The Committee after detailed deliberation noted that this is an expansion project. The Project Proponent has submitted Certified Compliance Report issued by the MoEF&CC, Regional Office, Nagpur vide letter dated 20.03.2017. The certified compliance report indicates

several areas of non compliance or partial compliance. Project Proponent submitted point wise clarification on non-compliances reported in the Regional Office Report. However, the Committee was not satisfied with the submission given by PP. The committee also noted that the traffic on the feeder roads is going to be impacted adversely.

The Committee asked following additional information from the Project Proponent:

- (i) Latest status with regards to the points indicated as non complied, partially complied or assured to be complied in the certified compliance report.
- (ii) Give a conformity status to conditions stipulated in Annexure XIV of the amended EIA Notification vide S.O. 3999 (E) dated 09.12.2016.
- (iii) Details design of green belt to be provided.
- (iv) Details on Dewatering proposed for basements or other utilities and the management plan.
- (v) Submit an assessment of the cumulative impact of all redevelopment and increased inhabitation being carried out or proposed to be carried out by the project or other agencies in the core area, shall be made for traffic densities and parking capabilities in a 05 kms. radius from the site. A detailed traffic management and a traffic decongestion plan drawn up through an organisation of repute and specialising in Transport Planning shall be implemented to the satisfaction of the State Urban Development and Transport Departments and shall also include the consent of all the concerned implementing agencies. The project proponents will obtain a certificate from the Transport Department that the incremental traffic from the operation of the project will be within the carrying capacity of feeder roads.
- (vi) Compliance report of ECBC norms.

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

18.5.10 Group Housing Colony in Khasra No. 1104 & 1111, Noor Nagar Pargna Loni, NH-58, Raj Nagar Extension, Ghaziabad (U.P.) by M/s LR Infrahomes India Pvt. Ltd – Environmental Clearance (IA/UP/NCP/63931/2017; F.No.21-152/2017-IA-III)

The project proponent made a presentation and provided the following information to the Committee:-

- (i) The present proposal is for development of Group Housing Colony in Khasra No. 1104 & 1111, Noor Nagar Pargna Loni, NH-58, Raj Nagar Extension, Ghaziabad (U.P.) by M/s LR Infrahomes India Pvt. Ltd located at 28°41'56.91"N Latitude and 77°25'40.38"E Longitude.
- (ii) Project is new and the total plot area is 12,274.56 sqm with proposed FAR is 22,903.72 sqm with total construction area of 45,700.08 sqm. The project will comprise of 5 buildings. Total 331 flats shall be developed. Maximum height of the building is 49.25 mtrs. The details are as follows:

1.	Total Plot Area	12,274.56 sqm
2.	Cost of the Project	Approx. 87.64 crores
3.	Total Built Up Area (FAR + Non FAR)	45,700.08 sqm
4.	Max permissible FAR	22,959.70 sqm

5.	FAR proposed	22,903.72 sqm
6.	Non FAR	60.45 +142.82+786.01+ 19,624.77 sqm
7.	Total ground coverage (Proposed) (28.96 % of NEPA)	2,660.46 sqm
8.	Total No of Units	331 (275+56)

- (iii) During construction phase, total water requirement is expected to be 22.5 KLD which will be met by private water tanker. During the construction phase, soak pits and septic tanks will be provided for disposal of waste water. Temporary sanitary toilets will be provided during peak labor force. During operational phase, total water demand of the project is expected to be 164 KLD and the same will be met by the Municipal Supply and bore-well. Wastewater generated (111KLD) uses will be treated in STPs of total 150 KLD capacities. 89 KLD of treated wastewater will be recycled (36 KLD for flushing, 5 KLD for gardening). About 43 KLD will be disposed in to municipal drain.
- (iv) About 0.85 TPD solid wastes will be generated in the project. The biodegradable waste (0.511TPD) will be processed in OWC and the non-biodegradable waste generated (0.255TPD) will be handed over to authorized local vendor.
- (v) The total power requirement during operation phase is 1,500 KVA and will be met from PVVNL (Paschimanchal Vidyut Vitaran Nigam Limited).
- (vi) Rooftop rainwater of buildings will be collected in 2 RWH pits of total 73.6 KLD capacity for harvesting after filtration.
- (vii) Parking facility for 414 ECS is proposed to be provided against the requirement of 251 ECS and 354 ECS respectively (according to MoEFCC and local norms).
- (viii) Area earmarked for greenbelt is 1,620.68 m² (15 % of Plot Area)
- (ix) There is no court case pending against the project.
- (x) Cost of the project is Rs.87.64 Crore.
- (xi) Employment potential: During construction phase 50-100 workers.
- (xii) Benefits of the project: Environmental benefits- It is IGBC rated green building project, Developing Green belt and STP Facility for wastewater treatment. Social Benefits- Having adequate parking facility, Neighbourhood shopping facility, Development of total infrastructure with all the amenities and it will provide healthy, green and safe premises for the residents.

After detailed deliberations, the Committee 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:

PART A – SPECIFIC CONDITIONS:

I. Construction Phase

- (i) 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.
- (ii) The natural drain system should be maintained for ensuring unrestricted flow of water. No construction shall be allowed to obstruct the natural drainage through the site, on wetland and water bodies. Check dams, bio-swales, landscape, and other sustainable urban drainage systems (SUDS) are allowed for maintaining the drainage pattern and to harvest

rain water. Buildings shall be designed to follow the natural topography as much as possible. Minimum cutting and filling should be done.

- (iii) Construction site shall be adequately barricaded before the construction begins. Dust, smoke & other air pollution prevention measures shall be provided for the building as well as the site. These measures shall include screens for the building under construction, continuous dust/ wind breaking walls all around the site (at least 3 meter height). Plastic/tarpaulin sheet covers shall be provided for vehicles bringing in sand, cement, murrum and other construction materials prone to causing dust pollution at the site as well as taking out debris from the site. Sand, murrum, loose soil, cement, stored on site shall be covered adequately so as to prevent dust pollution. Wet jet shall be provided for grinding and stone cutting. Unpaved surfaces and loose soil shall be adequately sprinkled with water to suppress dust.
- (iv) All construction and demolition debris shall be stored at the site (and not dumped on the roads or open spaces outside) before they are properly disposed. All demolition and construction waste shall be managed as per the provisions of the Construction and Demolition Waste Rules, 2016. All workers working at the construction site and involved in loading, unloading, carriage of construction material and construction debris or working in any area with dust pollution shall be provided with dust mask.
- (v) At least 20% of the open spaces as required by the local building bye-laws shall be pervious. Use of Grass pavers, paver blocks with at least 50% opening, landscape etc. would be considered as pervious surface.
- (vi) Compliance with the Energy Conservation Building Code (ECBC) of Bureau of Energy Efficiency shall be ensured. Buildings in the States which have notified their own ECBC, shall comply with the State ECBC. Outdoor and common area lighting shall be LED. Concept of passive solar design that minimize energy consumption in buildings by using design elements, such as building orientation, landscaping, efficient building envelope, appropriate fenestration, increased day lighting design and thermal mass etc. shall be incorporated in the building design. Wall, window, and roof u-values shall be as per ECBC specifications.
- (vii) Use of water saving devices/ fixtures (viz. low flow flushing systems; use of low flow faucets tap aerators etc) for water conservation shall be incorporated in the building plan.
- (viii) Installation of dual pipe plumbing for supplying fresh water for drinking, cooking and bathing etc and other for supply of recycled water for flushing, landscape irrigation, car washing, thermal cooling, conditioning etc. shall be done.
- (ix) Separation of grey and black water should be done by the use of dual plumbing system. In case of single stack system separate recirculation lines for flushing by giving dual plumbing system be done.
- (x) Sewage shall be treated in the STP based on FAB technology (with tertiary treatment i.e. Ultra Filtration). The treated effluent from STP shall be recycled/re-used for flushing, horticulture & DG cooling.
- (xi) 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. As proposed, 2 RWH pits of total 73.6 KLD capacity shall be provided for storm water recharging to ground as per CGWB guidelines.
- (xii) 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. As suggested, 100 m² of 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.

- (xiii) Solar based electric power shall be provided to each unit for at least two bulbs/light and one fan. As proposed, central lighting and street lighting shall also be based on solar power.
- (xiv) A First Aid Room shall be provided in the project both during construction and operations of the project.
- (xv) Topsoil should be stripped to a depth of 20 cm from the areas proposed for buildings, roads, paved areas, and external services. It should be stockpiled appropriately in designated areas and reapplied during plantation of the proposed vegetation on site.
- (xvi) Disposal of muck during construction phase shall not create any adverse effect on the neighboring communities and be disposed taking the necessary precautions for general safety and health aspects of people, only in approved sites with the approval of competent authority.
- (xvii) The diesel generator sets to be used during construction phase shall be low sulphur diesel type and shall conform to Environmental (Protection) prescribed for air and noise emission standards.
- (xviii) Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.
- (xix) As proposed, no ground water shall be used during construction/ operation phase of the project.
- (xx) Approval of the CGWA require before any dewatering for basements.
- (xxi) 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.
- (xxii) Any hazardous waste generated during construction phase, shall be disposed off as per applicable rules and norms with necessary approvals of the State Pollution Control Board.
- (xxiii) Vehicles hired for bringing construction material to the site should be in good condition and should have a pollution check certificate and should conform to applicable air and noise emission standards be operated only during non-peak hours.
- (xxiv) An assessment of the cumulative 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 05 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 implemented to the satisfaction of the State Urban Development and Transport Departments shall also include the consent of all the concerned implementing agencies.
- (xxv) Ambient noise levels shall conform to residential standards both during day and night as per Noise Pollution (Control and Regulation) Rules, 2000. Incremental pollution loads on the ambient air and noise quality shall be closely monitored during construction phase. Adequate measures shall be made to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by CPCB / SPCB.
- (xxvi) Use of environment friendly materials in bricks, blocks and other construction materials, shall be required for at least 20% of the construction material quantity. These include Fly Ash bricks, hollow bricks, AACs, Fly Ash Lime Gypsum blocks, Compressed earth blocks, and other environment friendly materials. Fly ash should be used as building material in the construction as per the provision of Fly Ash Notification of September, 1999 and amended as on 27th August, 2003 and 25th January, 2016. Ready mixed concrete must be used in building construction.

(xxvii) A comprehensive mobility plan, as per MoUD best practices guidelines (URDPFI), shall be prepared to include motorized, non-motorized, public, and private networks. Road should be designed with due consideration for environment, and safety of users. The road system can be designed with these basic criteria.

- Hierarchy of roads with proper segregation of vehicular and pedestrian traffic.
- Traffic calming measures
- Proper design of entry and exit points.
- Parking norms as per local regulation

II. Operational Phase

- (i) The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution. Low sulphur diesel shall be used. The location of the DG set and exhaust pipe height shall be as per the provisions of the Central Pollution Control Board (CPCB) norms.
- (ii) For indoor air quality the ventilation provisions as per National Building Code of India.
- (iii) Basement air quality shall be regularly monitored and maintained at Ambient Air quality
- (iv) Fresh water requirement from Municipal Water Supply shall not exceed 93 m³/day.
- (v) The quantity of fresh water usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance as projected by the project proponent. The record shall be submitted to the Regional Office, MoEF&CC along with six monthly Monitoring reports.
- (vi) The installation of the Sewage Treatment Plant (STP) shall be certified by an independent expert and a report in this regard shall be submitted to the Ministry before the project is commissioned for operation. Periodical monitoring of water quality of treated sewage shall be conducted. Necessary measures should be made to mitigate the odour problem from STP.
- (vii) No sewage or untreated effluent water would be discharged through storm water drains.
- (viii) Sludge from the onsite sewage treatment, including septic tanks, shall be collected, conveyed and disposed as per the Ministry of Urban Development, Central Public Health and Environmental Engineering Organization (CPHEEO) Manual on Sewerage and Sewage Treatment Systems, 2013.
- (ix) The provisions of the Solid Waste (Management) Rules, 2016, e-Waste (Management) Rules, 2016, and the Plastics Waste (Management) Rules, 2016 shall be followed.
- (x) Solar power shall be used for lighting in the apartment to reduce the power load on grid. Separate electric meter shall be installed for solar power. Solar water heaters shall be used to meet hot water demand, as far as possible.
- (xi) Energy conservation measures like installation of CFLs/ LED for the lighting the area outside the building should be integral part of the project design and should be in place before project commissioning. Used CFLs, TFL and LED shall be properly collected and disposed off/sent for recycling as per the prevailing guidelines/rules of the regulatory authority to avoid mercury contamination.
- (xii) A minimum of 1 tree for every 80 sq.mt. 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. Area earmarked for greenbelt is 1,620.68 sqm (15 % of Plot Area).
- (xiii) The company will draw up and implement a Corporate Social Responsibility plan as per the Company's Act of 2013.

18.5.11 Group Housing Project 'Gulshan Botnia' at GH-03C, Sector-144, Gautam Budh Nagar (U.P.) by M/s Gulshan Homes and Infrastructure Pvt. Ltd – Environmental Clearance (IA/UP/NCP/64298/2017; F.No.21-153/2017-IA-III)

The project proponent made a presentation and provided the following information to the Committee:-

- (i) The project proposal is for development of a Group Housing Project 'Gulshan Botnia' at GH-03C, Sector-144, Gautam Budh Nagar (U.P.) by M/s Gulshan Homes and Infrastructure Pvt. Ltd. Project is located at 28°33'25.35"N Latitude and 77°23'56.16"E Longitude.
- (ii) Project is new and the total plot area is 21,494.800 sqm with proposed FAR/FSI is 62,061.98 sqm with total construction area of 1,03,408.931 sqm. The project will comprise of 12 (Residential) + 2 (commercial & community) buildings. Total 764 flats shall be developed. Maximum height of the building is (S+19) 70.325 mtrs.
- (iii) During construction phase, total water requirement is expected to be 517 ML which will be met by private water tanker. During the construction phase, soak pits and septic tanks will be provided for disposal of waste water. Temporary sanitary toilets will be provided during peak labor force.
- (iv) During operational phase, total water demand of the project is expected to be 363 KLD and the same will be met by the Municipal authority. 229 KLD water will be recycled, which will be reused for flushing (86 KLD), Landscaping (24 KLD) extra treated wastewater of 119 KLD during Dry Season and 143 KLD during Monsoon season will be discharged in municipal drain.
- (v) About 1.872 TPD solid wastes will be generated in the project. The biodegradable waste (1.123 TPD) will be processed in OWC and the non-biodegradable waste generated (0.561TPD) will be handed over to authorized local vendor.
- (vi) The total power requirement during cooperation phase is 2,370 KVA and will be met from NPCL.
- (vii) Rooftop rainwater of buildings will be collected in 5 RWH tanks of total 135.65 KLD capacities for harvesting after filtration.
- (viii) Parking facility: Total 774 ECS is proposed to be provided against the requirement of 626 ECS (as per MoEF) and 776 ECS respectively (according to as per by the Noida bye Laws).
- (ix) There is no court case pending against the project.
- (x) Cost of the project is Rs.87.64 Crore.
- (xi) Employment potential: During construction phase 50-100 workers.
- (xii) **Benefits of the project:** Environmental benefits- It is IGBC rated green building project, Developing Green belt and STP Facility for wastewater treatment. Social Benefits- Having adequate parking facility, Neighbourhood shopping facility, Development of total infrastructure with all the amenities and it will provide healthy, green and safe premises for the residents.

The Committee was informed that the proposals have already been recommended for grant of Environmental Clearance by the SEAC, U.P. However, due to expiry of tenure of SEIAA/SEAC, U.P., the EC could not be granted. Hence, the proposal submitted to EAC at Central Level for grant of EC. The EAC recommended the project for grant of environmental clearance along with the conditions as stipulated by the SEAC, U.P. and following specific conditions for accord of environmental clearance:

PART A – SPECIFIC CONDITIONS:

I. Construction Phase

- (i) 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.
- (ii) All the recommendations and conditions stipulated by SEAC, Uttar Pradesh for this project in its 296th meeting held on 28.10.2016 shall be complied with.
- (iii) The natural drain system should be maintained for ensuring unrestricted flow of water. No construction shall be allowed to obstruct the natural drainage through the site, on wetland and water bodies. Check dams, bio-swales, landscape, and other sustainable urban drainage systems (SUDS) are allowed for maintaining the drainage pattern and to harvest rain water. Buildings shall be designed to follow the natural topography as much as possible. Minimum cutting and filling should be done.
- (iv) Construction site shall be adequately barricaded before the construction begins. Dust, smoke & other air pollution prevention measures shall be provided for the building as well as the site. These measures shall include screens for the building under construction, continuous dust/ wind breaking walls all around the site (at least 3 meter height). Plastic/tarpaulin sheet covers shall be provided for vehicles bringing in sand, cement, murrum and other construction materials prone to causing dust pollution at the site as well as taking out debris from the site. Sand, murrum, loose soil, cement, stored on site shall be covered adequately so as to prevent dust pollution. Wet jet shall be provided for grinding and stone cutting. Unpaved surfaces and loose soil shall be adequately sprinkled with water to suppress dust.
- (v) All construction and demolition debris shall be stored at the site (and not dumped on the roads or open spaces outside) before they are properly disposed. All demolition and construction waste shall be managed as per the provisions of the Construction and Demolition Waste Rules, 2016. All workers working at the construction site and involved in loading, unloading, carriage of construction material and construction debris or working in any area with dust pollution shall be provided with dust mask.
- (vi) At least 20% of the open spaces as required by the local building bye-laws shall be pervious. Use of Grass pavers, paver blocks with at least 50% opening, landscape etc. would be considered as pervious surface.
- (vii) Compliance with the Energy Conservation Building Code (ECBC) of Bureau of Energy Efficiency shall be ensured. Buildings in the States which have notified their own ECBC, shall comply with the State ECBC. Outdoor and common area lighting shall be LED. Concept of passive solar design that minimize energy consumption in buildings by using design elements, such as building orientation, landscaping, efficient building envelope, appropriate fenestration, increased day lighting design and thermal mass etc. shall be incorporated in the building design. Wall, window, and roof u-values shall be as per ECBC specifications.
- (viii) Use of water saving devices/ fixtures (viz. low flow flushing systems; use of low flow faucets tap aerators etc) for water conservation shall be incorporated in the building plan.
- (ix) Installation of dual pipe plumbing for supplying fresh water for drinking, cooking and bathing etc and other for supply of recycled water for flushing, landscape irrigation, car washing, thermal cooling, conditioning etc. shall be done.
- (x) Separation of grey and black water should be done by the use of dual plumbing system. In case of single stack system separate recirculation lines for flushing by giving dual plumbing system be done.

- (xi) Sewage shall be treated in the STP based on MBBR technology (with tertiary treatment i.e. Ultra Filtration). The treated effluent from STP shall be recycled/re-used for flushing, horticulture & DG cooling.
- (xii) 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. As proposed, 2 RWH pits of total 73.6 KLD capacity shall be provided for storm water recharging to ground as per CGWB guidelines.
- (xiii) 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.
- (xiv) Solar based electric power shall be provided to each unit for at least two bulbs/light and one fan. As proposed, central lighting and street lighting shall also be based on solar power.
- (xv) A First Aid Room shall be provided in the project both during construction and operations of the project.
- (xvi) Topsoil should be stripped to a depth of 20 cm from the areas proposed for buildings, roads, paved areas, and external services. It should be stockpiled appropriately in designated areas and reapplied during plantation of the proposed vegetation on site.
- (xvii) Disposal of muck during construction phase shall not create any adverse effect on the neighboring communities and be disposed taking the necessary precautions for general safety and health aspects of people, only in approved sites with the approval of competent authority.
- (xviii) The diesel generator sets to be used during construction phase shall be low sulphur diesel type and shall conform to Environmental (Protection) prescribed for air and noise emission standards.
- (xix) Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.
- (xx) As proposed, no ground water shall be used during construction/ operation phase of the project.
- (xxi) Approval of the CGWA require before any dewatering for basements.
- (xxii) 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 lightning etc.
- (xxiii) Any hazardous waste generated during construction phase, shall be disposed off as per applicable rules and norms with necessary approvals of the State Pollution Control Board.
- (xxiv) Vehicles hired for bringing construction material to the site should be in good condition and should have a pollution check certificate and should conform to applicable air and noise emission standards be operated only during non-peak hours.
- (xxv) Ambient noise levels shall conform to residential standards both during day and night as per Noise Pollution (Control and Regulation) Rules, 2000. Incremental pollution loads on the ambient air and noise quality shall be closely monitored during construction phase. Adequate measures shall be made to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by CPCB / SPCB.

- (xxvi) Use of environment friendly materials in bricks, blocks and other construction materials, shall be required for at least 20% of the construction material quantity. These include Fly Ash bricks, hollow bricks, AACs, Fly Ash Lime Gypsum blocks, Compressed earth blocks, and other environment friendly materials. Fly ash should be used as building material in the construction as per the provision of Fly Ash Notification of September, 1999 and amended as on 27th August, 2003 and 25th January, 2016. Ready mixed concrete must be used in building construction.
- (xxvii) A comprehensive mobility plan, as per MoUD best practices guidelines (URDPFI), shall be prepared to include motorized, non-motorized, public, and private networks. Road should be designed with due consideration for environment, and safety of users. The road system can be designed with these basic criteria.
- Hierarchy of roads with proper segregation of vehicular and pedestrian traffic.
 - Traffic calming measures
 - Proper design of entry and exit points.
 - Parking norms as per local regulation

II. Operational Phase

- (i) The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution. Low sulphur diesel shall be used. The location of the DG set and exhaust pipe height shall be as per the provisions of the Central Pollution Control Board (CPCB) norms.
- (ii) For indoor air quality the ventilation provisions as per National Building Code of India.
- (iii) Fresh water requirement from Municipal Water Supply shall not exceed 164 m³/day.
- (iv) The quantity of fresh water usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance as projected by the project proponent. The record shall be submitted to the Regional Office, MoEF&CC along with six monthly Monitoring reports.
- (v) The installation of the Sewage Treatment Plant (STP) shall be certified by an independent expert and a report in this regard shall be submitted to the Ministry before the project is commissioned for operation. Periodical monitoring of water quality of treated sewage shall be conducted. Necessary measures should be made to mitigate the odour problem from STP.
- (vi) No sewage or untreated effluent water would be discharged through storm water drains.
- (vii) Sludge from the onsite sewage treatment, including septic tanks, shall be collected, conveyed and disposed as per the Ministry of Urban Development, Central Public Health and Environmental Engineering Organization (CPHEEO) Manual on Sewerage and Sewage Treatment Systems, 2013.
- (viii) The provisions of the Solid Waste (Management) Rules, 2016, e-Waste (Management) Rules, 2016, and the Plastics Waste (Management) Rules, 2016 shall be followed.
- (ix) Solar power shall be used for lighting in the apartment to reduce the power load on grid. Separate electric meter shall be installed for solar power. Solar water heaters shall be used to meet hot water demand, as far as possible.
- (x) Energy conservation measures like installation of CFLs/ LED for the lighting the area outside the building should be integral part of the project design and should be in place before project commissioning. Used CFLs, TFL and LED shall be properly collected and disposed off/sent for recycling as per the prevailing guidelines/rules of the regulatory authority to avoid mercury contamination.

- (xi) A minimum of 1 tree for every 80 sq.mt. 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. Area earmarked for greenbelt is 1,620.68 m² (15 % of Plot Area).
- (xii) The company will draw up and implement a Corporate Social Responsibility plan as per the Company's Act of 2013.
- (xiii) An environmental management plan (EMP) shall be prepared and implemented to ensure compliance with the environmental conditions specified above. 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, 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.

18.5.12 Expansion of the existing township "Omaxe Eternity Township" located at Chhatikara Road, Vrindavan, Distt. Mathura, Uttar Pradesh by M/s Omaxe Limited – Environmental Clearance (IA/UP/NCP/64477/2016; F.No.21-154/2017-IA-III)

The project proponent made a presentation and provided the following information to the Committee:-

- (i). The project is an expansion project. The project is located at 27°34' 08" to 27° 34'49" N Latitude and 77°38' 58" to 77°39' 25" E longitude.
- (ii). Earlier Clearance details, Constructions status, if any—Phase-I of the project is under construction and nearing completion. Phase-I had received EC vide letter No. 1120/SEAC/401/2010/TA(J) dated 10.07.2010 from SEIAA, U.P for an area of 1,49,638.71 sqm. out of which 1,49,219.31 sqm has been achieved.
- (iii). The total plot area is 3,84,869.70 sqm.(Earlier Ph-I:2,34,070.15 and proposed Ph-II: 1,50,799.55). Total construction area will be 2,83,214.32 sqm. (Earlier Ph-I: 1,49,219.31 sqm. & proposed Ph-II: 1,33,995.01 sqm.). The project will comprise of approximately 300 Buildings (Row housing: 259, Group Housing: 15, Commercial: 5 and approximately 21 miscellaneous buildings for services/ PSP). Total 3784 dwelling unit (Earlier Ph-I: 2714 and proposed Ph-II: 1070) shall be developed. Maximum height of the building is 30 m.
- (iv). During construction phase, total water requirement is expected to be 30 KLD which will be met by treated waste water, commercial tanker suppliers or any other source sanctioned by MVDA. During the construction phase, soak pits and septic tanks will be provided for disposal of waste water. Temporary sanitary toilets will be provided during peak labor force.
- (v). During operational phase, total water demand of the project is expected to be 1757 KLD (Earlier Ph-I: 1460 KLD; proposed Ph-II:297 KLD) and the same will be met by the ground water till Municipal Water supply becomes available. Additionally 1337 KLD recycled water will be available from STP for use. Wastewater generated 1486 KLD (Earlier Ph-I: 1178, Proposed Ph-II: 308 KLD) will be treated in 1 centralized STP (modular) of total 1500 KLD capacity. 1337 KLD (Earlier Ph-I:1060 KLD, Proposed Ph-II:277 KLD) of treated wastewater will be recycled - 424 KLD for flushing, 59 KLD for gardening, 95 KLD for road washing and balance 759 KLD to nearby farmers for agriculture. No discharge will be there except during monsoon season, which will be disposed in to municipal drain/natural drain.

- (vi). About 9 TPD (Earlier Ph-I: 7.9 TPD, Proposed Ph-II:1.1 TPD) solid waste will be generated in the project. The biodegradable waste (3.62 TPD) will be processed in OWC and the non-biodegradable waste generated (5.11 TPD) will be handed over to authorized local vendor. 0.33 TPD shall be recyclable waste.
- (vii). The total power requirement during construction phase is 94 KVA and will be met from UPPCL and total power requirement during operation phase is 16,875KVA (Earlier Ph-I: 10,000 KVA and proposed Ph-II: 6,875 KVA) and will be met from UPPCL.
- (viii). Rooftop rainwater of buildings will be collected in 38 (Earlier Ph-I- 26, Proposed Ph-II-12) RWH tanks of total 1564.88 KLH capacity for harvesting after filtration.
- (ix). Parking facility for both Ph-I & Ph-II will be 2426 ECS for both four wheelers and two wheelers, which is proposed to be provided against the requirement of 2426 ECS (according to MVDA norms).
- (x). Proposed energy saving measures would save about 5% of power.
- (xi). It is not located within 10 km of any Eco Sensitive areas such as National Park, Biosphere reserve, Wild life Sanctuary & Bird Sanctuary. Project lies within Taj Trapezium.
- (xii). Investment/Cost of the project is Rs 170 crore for expansion.
- (xiii). Employment potential– approximately 700 persons.
- (xiv). Benefits of the project - Provision of housing to the Mathura region of NCR, especially to the pilgrim population, employment to work force required for construction (labour) and operation (such as drivers, helpers, loader/unloaders, supervisors, store keepers, security etc.) which will mostly be from surrounding villages.

During the deliberation, the Committee noted that this is an expansion project and the Project Proponent has not submitted Certified Compliance Report of the conditions stipulated in the earlier environmental clearance issued for the project.

After detailed deliberation, the Committee sought following additional information:

- (i) Certified compliance report issued by the MoEF&CC Regional Office, Lucknow on environmental conditions stipulated in the existing environmental clearance.
- (ii) Give a conformity status to conditions stipulated in Annexure XIV of the amended EIA Notification vide S.O. 3999 (E) dated 09.12.2016.
- (iii) Submit an assessment of the cumulative impact of all redevelopment and increased inhabitation being carried out or proposed to be carried out by the project or other agencies in the core area, shall be made for traffic densities and parking capabilities in a 05 kms. radius from the site. A detailed traffic management and a traffic decongestion plan drawn up through an organisation of repute and specialising in Transport Planning shall be implemented to the satisfaction of the State Urban Development and Transport Departments and shall also include the consent of all the concerned implementing agencies. The project proponents will obtain a certificate from the Transport Department that the incremental traffic from the operation of the project will be within the carrying capacity of feeder roads.
- (iv) Compliance report of ECBC norms.

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

18.5.13 SPLS Awasiya Yojna under Samajwadi Awasiya Yojna at Khasra No-1542,1543,1571,1565,1569,1541 Village – KUSHALIYA,PARGANA DASANA, Tehsil & District - Distt. Ghaziabad (UP) by M/s Shreya Dwellers Private Limited (Consortium) – Environmental Clearance (IA/UP/NCP/64551/2017; No.21-156/2017-IA-III)

The project proponent made a presentation and provided the following information to the Committee:-

- i. The name of the project is SPLS Awasiya Yojna under Samajwadi Awasiya Yojna at Khasra No- 1542, 1543, 1571,1565,1569,1541 Village – Kushaliya, Pargana Dasana, Tehsil & District - Distt. Ghaziabad (UP) The project is located at 28⁰ 42'13.47"North Latitude and 77⁰ 32'11.04" East longitude.
- ii. The total plot area is 40,000 sqm. FSI area is 94084.03 sqm and total construction area is 123057.625 sqm. The project will comprise of 14 nos. of Buildings. Total 1663 flats shall be developed.
- iii. During construction phase, total water requirement is expected to be 15-20 KLD which will be met by Tanker water. During the construction phase, soak pits and septic tanks will be provided for disposal of waste water. Temporary sanitary toilets will be provided during peak labor force.
- iv. During operational phase, total water demand of the project is expected to be 1170 KLD. Fresh water requirement of 819 KLD will be supplied by U.P. Jal Nigam and partly ground water if CGWA permits for the same. During operation stage, it has been estimated that approx 936 KLD of sewage will be generated from the project. The entire sewage will be treated in STP of 1000 KLD capacity. Approx 411 KLD of water requirement will be met through recycling of STP treated water. About 339 KLD will be disposed in to municipal drain.
- v. About 4.989 TPD solid wastes will be generated in the project. The biodegradable waste (2.49 TPD) will be processed in OWC and the non-biodegradable waste generated (2.49 TPD) will be handed over to authorized local vendor.
- vi. The total power requirement during construction phase is 62 KVA and will be met from UPPCL and total power requirement during cooperation phase is 5933 KVA and will be met from UPPCL.
- vii. Rooftop rainwater of buildings will be collected in 6 RWH tanks of total 24576 KLD capacity for harvesting after filtration.
- viii. Parking facility for 1168 ECS with Scooter parking of 326 is proposed to be provided.
- ix. Proposed energy saving measures would save about 15 % of power.
- x. Investment/Cost of the project is Rs. 200 Crores.
- xi. Employment potential: It Provides employment to 100 Local labours.
- xii. Benefits of the project: The project will provide houses to 8315 Peoples

During presentation, the Committee noticed that the Consultant who is presenting the case is not accredited with QCI-NABET but has stay to work as Environmental Consultant. The Committee asked the Project Proponent to get the assurance from all concerned authorities/agencies to provide amenities by 2020. The Committee recommended the project for environmental clearance and stipulated the following specific conditions along with other environmental conditions while considering for accord of environmental clearance:

PART A – SPECIFIC CONDITIONS:

I. Construction Phase

- (i) 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.

- (ii) The natural drain system should be maintained for ensuring unrestricted flow of water. No construction shall be allowed to obstruct the natural drainage through the site, on wetland and water bodies. Check dams, bio-swales, landscape, and other sustainable urban drainage systems (SUDS) are allowed for maintaining the drainage pattern and to harvest rain water. Buildings shall be designed to follow the natural topography as much as possible. Minimum cutting and filling should be done.
- (iii) Construction site shall be adequately barricaded before the construction begins. Dust, smoke & other air pollution prevention measures shall be provided for the building as well as the site. These measures shall include screens for the building under construction, continuous dust/ wind breaking walls all around the site (at least 3 meter height). Plastic/tarpaulin sheet covers shall be provided for vehicles bringing in sand, cement, murrum and other construction materials prone to causing dust pollution at the site as well as taking out debris from the site. Sand, murrum, loose soil, cement, stored on site shall be covered adequately so as to prevent dust pollution. Wet jet shall be provided for grinding and stone cutting. Unpaved surfaces and loose soil shall be adequately sprinkled with water to suppress dust.
- (iv) All construction and demolition debris shall be stored at the site (and not dumped on the roads or open spaces outside) before they are properly disposed. All demolition and construction waste shall be managed as per the provisions of the Construction and Demolition Waste Rules, 2016. All workers working at the construction site and involved in loading, unloading, carriage of construction material and construction debris or working in any area with dust pollution shall be provided with dust mask.
- (v) At least 20% of the open spaces as required by the local building bye-laws shall be pervious. Use of Grass pavers, paver blocks with at least 50% opening, landscape etc. would be considered as pervious surface.
- (vi) Compliance with the Energy Conservation Building Code (ECBC) of Bureau of Energy Efficiency shall be ensured. Buildings in the States which have notified their own ECBC, shall comply with the State ECBC. Outdoor and common area lighting shall be LED. Concept of passive solar design that minimize energy consumption in buildings by using design elements, such as building orientation, landscaping, efficient building envelope, appropriate fenestration, increased day lighting design and thermal mass etc. shall be incorporated in the building design. Wall, window, and roof u-values shall be as per ECBC specifications.
- (vii) Use of water saving devices/ fixtures (viz. low flow flushing systems; use of low flow faucets tap aerators etc) for water conservation shall be incorporated in the building plan.
- (viii) Installation of dual pipe plumbing for supplying fresh water for drinking, cooking and bathing etc and other for supply of recycled water for flushing, landscape irrigation, car washing, thermal cooling, conditioning etc. shall be done.
- (ix) Separation of grey and black water should be done by the use of dual plumbing system. In case of single stack system separate recirculation lines for flushing by giving dual plumbing system be done.
- (x) Sewage shall be treated in the STP based on MBBR technology (with tertiary treatment i.e. Ultra Filtration). The treated effluent from STP shall be recycled/re-used for flushing, horticulture & DG cooling.
- (xi) 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. As proposed, 6 RWH tanks of total 24576 KLD capacity shall be provided for storm water recharging to ground as per CGWB guidelines.

- (xii) 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.
- (xiii) The inert waste from group housing project will be sent to dumping site.
- (xiv) Solar based electric power shall be provided to each unit for at least two bulbs/light and one fan. As proposed, central lighting and street lighting shall also be based on solar power.
- (xv) A First Aid Room shall be provided in the project both during construction and operations of the project.
- (xvi) Topsoil should be stripped to a depth of 20 cm from the areas proposed for buildings, roads, paved areas, and external services. It should be stockpiled appropriately in designated areas and reapplied during plantation of the proposed vegetation on site.
- (xvii) Disposal of muck during construction phase shall not create any adverse effect on the neighboring communities and be disposed taking the necessary precautions for general safety and health aspects of people, only in approved sites with the approval of competent authority.
- (xviii) The diesel generator sets to be used during construction phase shall be low sulphur diesel type and shall conform to Environmental (Protection) prescribed for air and noise emission standards.
- (xix) Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.
- (xx) As proposed, no ground water shall be used during construction/ operation phase of the project.
- (xxi) Approval of the CGWA require before any dewatering for basements.
- (xxii) 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.
- (xxiii) Any hazardous waste generated during construction phase, shall be disposed off as per applicable rules and norms with necessary approvals of the State Pollution Control Board.
- (xxiv) Vehicles hired for bringing construction material to the site should be in good condition and should have a pollution check certificate and should conform to applicable air and noise emission standards be operated only during non-peak hours.
- (xxv) Ambient noise levels shall conform to residential standards both during day and night as per Noise Pollution (Control and Regulation) Rules, 2000. Incremental pollution loads on the ambient air and noise quality shall be closely monitored during construction phase. Adequate measures shall be made to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by CPCB / SPCB.
- (xxvi) Use of environment friendly materials in bricks, blocks and other construction materials, shall be required for at least 20% of the construction material quantity. These include Fly Ash bricks, hollow bricks, AACs, Fly Ash Lime Gypsum blocks, Compressed earth blocks, and other environment friendly materials. Fly ash should be used as building material in the construction as per the provision of Fly Ash Notification of September, 1999 and amended as on 27th August, 2003 and 25th January, 2016. Ready mixed concrete must be used in building construction.

(xxvii) A comprehensive mobility plan, as per MoUD best practices guidelines (URDPFI), shall be prepared to include motorized, non-motorized, public, and private networks. Road should be designed with due consideration for environment, and safety of users. The road system can be designed with these basic criteria.

- Hierarchy of roads with proper segregation of vehicular and pedestrian traffic.
- Traffic calming measures
- Proper design of entry and exit points.
- Parking norms as per local regulation

II. Operational Phase

- (i) The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution. Low sulphur diesel shall be used. The location of the DG set and exhaust pipe height shall be as per the provisions of the Central Pollution Control Board (CPCB) norms.
- (ii) For indoor air quality the ventilation provisions as per National Building Code of India.
- (iii) Fresh water requirement from Municipal Water Supply shall not exceed 819 m³/day.
- (iv) The quantity of fresh water usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance as projected by the project proponent. The record shall be submitted to the Regional Office, MoEF&CC along with six monthly Monitoring reports.
- (v) The installation of the Sewage Treatment Plant (STP) shall be certified by an independent expert and a report in this regard shall be submitted to the Ministry before the project is commissioned for operation. Periodical monitoring of water quality of treated sewage shall be conducted. Necessary measures should be made to mitigate the odour problem from STP.
- (vi) No sewage or untreated effluent water would be discharged through storm water drains.
- (vii) Sludge from the onsite sewage treatment, including septic tanks, shall be collected, conveyed and disposed as per the Ministry of Urban Development, Central Public Health and Environmental Engineering Organization (CPHEEO) Manual on Sewerage and Sewage Treatment Systems, 2013.
- (viii) The provisions of the Solid Waste (Management) Rules, 2016, e-Waste (Management) Rules, 2016, and the Plastics Waste (Management) Rules, 2016 shall be followed.
- (ix) Solar power shall be used for lighting in the apartment to reduce the power load on grid. Separate electric meter shall be installed for solar power. Solar water heaters shall be used to meet hot water demand, as far as possible.
- (x) Energy conservation measures like installation of CFLs/ LED for the lighting the area outside the building should be integral part of the project design and should be in place before project commissioning. Used CFLs, TFL and LED shall be properly collected and disposed off/sent for recycling as per the prevailing guidelines/rules of the regulatory authority to avoid mercury contamination.
- (xi) A minimum of 1 tree for every 80 sq.mt. 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. Green Area earmarked is 5891.66 sqm (15 %) + about 600 sqm for tree plantation.
- (xii) The company will draw up and implement a Corporate Social Responsibility plan as per the Company's Act of 2013.

- (xiii) An environmental management plan (EMP) shall be prepared and implemented to ensure compliance with the environmental conditions specified above. 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, 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.

18.5.14 Construction of two offshore container berths and development of container terminal on BOT basis in Mumbai Harbour by Mumbai Port Trust - Terms of Reference – [IA/MH/MIS/62185/2017] [F.No. 10-10/2017-IA-III]

The project proponent made a presentation and provided the following information to the Committee:-

- (i) Name of the proposal is “Construction of two offshore container berths and development of container terminal on BOT basis in Mumbai Harbour” by Mumbai Port Trust. This project is an expansion of existing Mumbai Port Trust for improvement of traffic at Mumbai Port. The site was selected by the consultants (JICA) who prepared the master plan for development of Mumbai Port.
- (ii) Ministry of Environment and Forest, Govt. of India had accorded the Environment Clearance for the subject project by letter No.10-18/2005-IA-III dated 15.6.2006 and modified the same vide corrigendum by letter No.10-18/2005-IA-III dated 09.11.2006. Thereafter, the validity has been extended upto 14.6.2016 vide letter No. 10-18/2005-IA-III dated 07.01.2014. Further 6 monthly reports were regularly sent to zonal office.
- (iii) No extra land is required, as stated in earlier clearance, the existing Princess and Victoria Docks areas which were used for handling cargo other than containers have been filled up. At present, only Victoria docks will be used for stacking of cargo such as steel, car, containers and any other clean cargo.
- (iv) Cost of the project is estimated at Rs. 1290 crores.
- (v) Court cases: PIL no 149 of 2014 later changed as PIL 31 of 2015 has been filed by the petitioner Shri Sayyed Abdul against the Filling of Prince’s and Victoria Docks. The work of filling of Prince’s and Victoria Docks have already been completed.
- (vi) Employment potential: The EXIM trade due to this facility will increase and creating employment opportunity, supply chain management, facilities for industries in the Mumbai region and Maharashtra.
- (vii) Benefits of the project: The EXIM trade due to this facility will increase and creating employment opportunity, supply chain management, facilities for industries in the Mumbai region and Maharashtra.

During deliberation, the project proponents made a request for an exemption from public hearing as the same has already been conducted in 2005. The same was allowed but the project proponents were advised to include a chapter on Queries and comments raised by the participants during the earlier Public hearings suitably documented in the form of a management plan drawn up to address to the expressed concerns.

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. Submit a copy of layout superimposed on the HTL/LTL map demarcated by an authorized agency on 1:4000 scale.
- iii. Recommendation of the SCZMA.
- iv. Stage – I forest clearance to be submitted.
- v. Various Dock and shipbuilding facilities with capacities for existing and proposed project.
- vi. Study the impact of dredging on the shore line.
- vii. A detailed impact analysis of rock dredging.
- viii. Study the impact of dredging and dumping on marine ecology and draw up a management plan through the NIO or any other institute specializing in marine ecology.
- ix. A detailed analysis of the physico-chemical and biotic components in the highly turbid waters round the project site (as exhibited in the Google map shown during the presentation), compare it with the physico- chemical and biotic components in the adjacent clearer (blue) waters both in terms of baseline and impact assessment and draw up a management plan.
- x. Details of Emission, effluents, solid waste and hazardous waste generation and their management in the existing and proposed facilities.
- xi. The existing project should avail of and submit a consent to operate from the State Pollution Control Board.
- xii. Requirement of water, power, with source of supply, status of approval, water balance diagram, man-power requirement (regular and contract).
- xiii. Wastewater management plan.
- xiv. Details of Environmental Monitoring Plan.
- xv. The Project proponents will submit copy of the certified compliance report on the Environmental clearances issued earlier to the project.
- xvi. To prepare a detailed biodiversity impact assessment report and management plan through the NIOS or any other institute of repute on marine, brackish water and fresh water ecology and biodiversity. The report shall study the impact on the rivers, estuary and the sea and include the intertidal biotopes, corals and coral communities, molluscs, sea grasses, sea weeds, subtidal habitats, fishes, other marine and aquatic micro, macro and mega flora and fauna including benthos, plankton, turtles , birds etc. as also the productivity. The data collection and impact assessment shall be as per standard survey methods.
- xvii. The EIA report shall address to all representations and complaints received against the project including those received from the representations from the Conservation Action Plan.
- xviii. The Study area should be 15 Kms round the project site for base level studies in order that the areas already polluted or under stress can also be identified for impacts and mitigation.
- xix. The EIA would follow the orders of the respective courts and include a chapter in the EIA on the Court cases including those at the Supreme Court and the NGT.
- xx. The Queries and comments raised by the participants during the earlier Public hearing held in 2005 will be suitably documented in the form of a management plan drawn up to address to the expressed concerns.
- xxi. Disaster Management Plan for the above terminal.
- xxii. Layout plan of existing and proposed Greenbelt.

- xxiii. Status of court case pending against the project.
- xxiv. A tabular chart with index for point wise compliance of above TORs.

It was recommended that 'TOR' without 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.

LIST OF PARTICIPANTS OF EAC (INFRASTRUCTURE-2) IN 18TH MEETING OF EAC (INFRASTRUCTURE-2) HELD ON 25TH – 27TH MAY, 2017

Sr. No.	Name	Designation	Attendance
1.	Prof. T. Haque,	Chairman	P
2.	Shri K. Gowarappan	Member	P (1 st & 2 nd day)
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	P
7.	Shri A. P. Singh	Member	P (1 st Day & 3 rd Day)
8.	Ms. Mili Majumdar	Member	P (3 rd Day)
9.	Prof. Dr. Sanjay Gupta	Member	P (1 st Day)
MOEF&CC Representative			
10.	Dr. Vinod K. Singh	Scientist D & Member Secretary	P