

STATE ENVIRONMENT IMPACT ASSESSMENT AUTHORITY HARYANA
Bay No. 55-58, Prayatan Bhawan, Sector-2, PANCHKULA.

No. SEIAA/HR/2015/ 35

Dated: 05-01-2015

To

M/s Emaar MGF Land Ltd.
 Emaar MGF Business Park, MG Road,
 Sikanderpur Chowk Sector-28, Gurgaon,
 Haryana-122002

**Subject: Environmental Clearance for proposed Residential Plotted Colony
 "Emerald Hills", Village Badshahpur, Maidawas, Nangli Umarpur,
 Sec-62 & 65, Gurgaon, Haryana.**

Dear Sir,

This letter is in reference to your application no Emaar MGF/SEC/EC/730 dated 30.11.2012 addressed to M.S. SEIAA, Haryana received on 05.12.2012 and subsequent letters dated 07.01.2013, 16.04.2013 and 24.06.2013 seeking prior Environmental Clearance for the above project under the EIA Notification, 2006. The proposal has been appraised as per prescribed procedure in the light of provisions under the EIA Notification, 2006 on the basis of the mandatory documents enclosed with the application viz., Form-1, Form1-A, Conceptual Plan, EIA/EMP on the basis of approved TOR and additional clarifications furnished in response to the observations of the State Expert Appraisal Committee (SEAC) constituted by MOEF, GOI vide their Notification 23.3.2012, in its meetings held on 30.01.2013, 06.06.2013 and 05.08.2013 awarded "Gold" grading to the project.

[2] It is inter-alia, noted that the project involves the development of Residential Plotted Colony "Emerald Hills", Village Badshahpur, Maidawas, Nangli Umarpur, Sector-62 & 65, Gurgaon, Haryana on a plot area is 801423.40 sqmt (198.0361 Acres). The total built up area will be 900487.10 sqmt. The proposed project shall have 1288 Residential Plots (1025 general + 263 EWS), 1 Group Housing (514 main units and 91 EWS), 4 Nursery School, 2 Primary School, 1 High School, 1 Club & Community Centre, 4 Nursing Home, 1 Dispensary and 2 Taxi stand. The project proponent has also proposed to developed commercial plot 1,2 & 3 having built up area 102600.55 sqm (20614.9 commercial-1 + 17678.63 commercial-2 + 64307 commercial-3) having 3 basements. The maximum height of the building is 85 meter. The total water requirement shall be 4900 KLD. The fresh water requirement shall be 2464 KLD. The waste water generation shall be 2882 KLD, which will be treated in the STP of 3460 KLD capacity. The total power requirement shall be 23 MVA which will be supplied by DHBVN. The Project Proponent has proposed to develop green belt on 34.8% of project area (20% tree plantation + 14.8% landscaping). The Project Proponent proposed to construct 111 rain water harvesting pits. The solid waste generation will be 13300 kg/day. The bio-

degradable waste will be treated in the project area by adopting appropriate technology. The total parking spaces proposed are 2546 ECS.

[3] The State Expert Appraisal Committee, Haryana after due consideration of the relevant documents submitted by the project proponent and additional clarification furnished in response to its observations, have recommended the grant of environmental clearance for the project mentioned above, subject to compliance with the stipulated conditions. Accordingly, the State Environment Impact Assessment Authority in its meeting held on 16.12.2014 decided to agree with the recommendations of SEAC to accord necessary environmental clearance for the project under Category 8(b) of EIA Notification 2006 subject to the strict compliance with the specific and general conditions mentioned below:-

PART A-

SPECIFIC CONDITIONS:-

Construction Phase:-

- [1] "Consent for Establish" shall be obtained from Haryana State Pollution Control Board under Air and Water Act and a copy shall be submitted to the SEIAA, Haryana before the start of any construction work at site.
- [2] A first aid room as proposed in the project report shall be provided both during construction and operational phase of the project.
- [3] Adequate drinking water and sanitary facilities shall be provided for construction workers at the site. Provision should be made for mobile toilets. Open defecation by the laboures is strictly prohibited. The safe disposal of waste water and solid wastes generated during the construction phase should be ensured.
- [4] All the topsoil excavated during construction activities shall be stored for use in horticulture/landscape development within the project site.
- [5] The project proponent shall ensure that the building material required during construction phase is properly stored within the project area and disposal of construction waste should not create any adverse effect on the neighboring communities and should be disposed of after taking necessary precautions for general safety and health aspects of people, only in approved sites with the approval of competent authority.
- [6] Construction spoils, including bituminous material and other hazardous materials, must not be allowed to contaminate watercourses and the dump sites for such material must be secured so that they should not leach into the ground water and any hazardous waste generated during construction phase, should be disposed off as per applicable rules and norms with necessary approval of the Haryana State Pollution Control Board.

- [7] The diesel generator sets to be used during construction phase shall be of ultra low sulphur diesel type and should conform to Environment (Protection) Rules prescribed for air and noise emission standards.
- [8] The diesel required for operating DG sets shall be stored in underground tanks and if required, clearance from Chief Controller of Explosives shall be taken.
- [9] Ambient noise levels shall conform to the residential standards both during day and night. Incremental pollution loads on the ambient air and noise quality should be closely monitored during construction phase. Adequate measures should be taken to reduce ambient air pollution and noise level during construction phase, so as to conform to the stipulated residential standards of CPCB/MoEF.
- [10] Fly ash shall be used as building material in the construction as per the provisions of Fly Ash Notification of September 1999 and as amended on 27th August 2003.
- [11] Storm water control and its re-use as per CGWB and BIS standards for various applications should be ensured.
- [12] Water demand during construction shall be reduced by use of pre-mixed concrete, curing agents and other best practices.
- [13] Roof must meet prescriptive requirement as per Energy Conservation Building Code by using appropriate thermal insulation material.
- [14] Opaque wall must meet prescriptive requirement as per Energy Conservation Building Code which is proposed to be mandatory for all air conditioned spaces while it is desirable for non-air-conditioned spaces by use of appropriate thermal insulation material to fulfill requirement.
- [15] The approval of the competent authority shall be obtained for structural safety of the building on account of earthquake, adequacy of fire fighting equipments, etc. as per National Building Code including protection measures from lightning etc. If any forest land is involved in the proposed site, clearance under Forest Conservation Act shall be obtained from the competent Authority.
- [16] The Project Proponent as stated in the proposal shall construct total 111 rain water harvesting pits for recharging the ground water within the project premises. Rain water harvesting pits shall be designed to make provisions for silting chamber and removal of floating matter before entering harvesting pit. Maintenance budget and persons responsible for maintenance must be provided. Care shall also be taken that contaminated water do not enter any RWH pit.
- [17] The project proponent shall provide for adequate fire safety measures and equipments as required by Haryana Fire Service Act, 2009 and instructions issued by the local Authority/Directorate of fire from time to time. Further the project proponent shall take necessary permission regarding fire safety scheme/NOC from competent Authority as required.

- [18] The Project Proponent shall obtain assurance from the DHBVN for supply of 23 MVA of power supply before the start of construction. In no case project will be operational solely on generators without any power supply from any external power utility.
- [19] Detail calculation of power load and ultimate power load of the project shall be submitted to DHBVN under intimation to SEIAA Haryana before the start of construction. Provisions shall be made for electrical infrastructure in the project area.
- [20] The Project Proponent shall not raise any construction in the natural land depression / Nallah/water course and shall ensure that the natural flow from the Nallah/water course is not obstructed.
- [21] The Project Proponent shall keep the plinth level of the building blocks sufficiently above the level of the approach road to the Project. Levels of the other areas in the Projects shall also be kept suitably so as to avoid flooding.
- [22] Construction shall be carried out so that density of population does not exceed norms approved by Director General Town and Country Department Haryana.
- [23] The Project Proponent shall submit an affidavit with the declaration that ground water will not be used for construction and only treated water should be used for construction.
- [24] The project proponent shall not cut any existing tree and project landscaping plan should be modified to include those trees in green area.
- [25] The project proponent shall provide 3 meter high barricade around the project area, dust screen for every floor above the ground, proper sprinkling and covering of stored material to restrict dust and air pollution during construction.
- [26] The project proponent shall construct a sedimentation basin in the lower level of the project site to trap pollutant and other wastes during rains.
- [27] The project proponent shall provide proper rasta of proper width and proper strength for the project before the start of construction.
- [28] The project proponent shall ensure that the U-value of the glass is less than 3.177 and maximum solar heat gain co-efficient is 0.25 for vertical fenestration.
- [29] The project proponent shall adequately control construction dusts like silica dust, non-silica dust and wood dust. Such dusts shall not spread outside project premises. Project Proponent shall provide respiratory protective equipment to all construction workers.
- [30] The project proponent shall develop complete civic infrastructure of the Residential Plotted colony including internal roads, green belt development, sewerage line, Rain Water recharge arrangements, Storm water drainage system, Solid waste management site and provision for treatment of bio-degradable waste,

STP, water supply line, dual plumbing line, electric supply lines etc. and shall offer possession of the units/flats thereafter.

- [31] The project proponent shall provide one refuge area till 24 meter, one till 39 meter and one after 15 meter each, as per National Building Code. The project proponent shall not convert any refuse area in the habitable space and it should not be sold out/commercialized.
- [32] The project proponent shall provide fire control room and fire officer for building above 30 meter as per National Building Code.
- [33] The project proponent shall obtain permission of Mines and Geology Department for excavation of soil before the start of construction.
- [34] The project proponent shall seek specific prior approval from concerned local Authority/HUDA regarding provision of storm drainage and sewerage system including their integration with external services of HUDA/ Local authorities beside other required services before taking up any construction activity.
- [35] The site for solid waste management plant be earmarked on the layout plan and the detailed project for setting up the solid waste management plant shall be submitted to the Authority within one month.
- [36] The project proponent shall submit the copy of fire safety plan duly approved by Fire Department before the start of construction.
- [37] The project proponent shall discharge excess of treated waste water/storm water in the public drainage system and shall seek permission of HUDA before the start of construction.
- [38] The project proponent shall maintain the distance between STP and water supply line.
- [39] The project proponent shall ensure that the stack height is 6 meter more than the highest tower.
- [40] The project proponent shall ensure that structural stability to withstand earthquake of magnitude 8.5 on Richter scale.
- [41] The project proponent shall ensure that no construction activity is undertaken either on surface or below or above surface of revenue rasta passing through the project area.
- [42] The project proponent shall indicate the width and length of revenue rasta passing through the project area on sign board and shall display the same at both the ends of revenue rasta stretch, for awareness of public. Sign board shall also display the message that this is public rasta/road and any citizen can use it. There shall not be any gate with or without guards on revenue rasta further project proponent shall not encroach revenue rasta and shall not cross internal roads over revenue rasta.
- [43] The project proponent shall ensure that natural flow of existing nallah is never obstructed.

- [44] The project proponent shall ensure that in case of excessive flow of water in, nallah, the structural integrity of buildings along-side the nallah is not breached in any circumstances.
- [45] The project proponent shall ensure that there should not be any water logging on the bed of nallah even in case of excessive rain.
- [46] The project proponent shall ensure that sewerage pipe line should not cross over the nallah and project proponent shall maintain separate STP in the plot area across the nallah.
- [47] The project proponent shall ensure that sewerage system and storm drainage system shall be planned by taking into account the natural slope of original land and approval from HUDA and Irrigation department shall be taken before the start of construction.
- [48] The project proponent shall construct culvert for crossing over the Nallah and ensure that bed of nallah is not encroached in any manner, while constructing the culvert over the nallah.
- [49] The project proponent shall ensure plinth level of the building block is 1.5 meter above 100 years flood level.
- [50] The project proponent shall provide pervious surface instead of impervious and hard surface in order to reduce overflow of water in nallah.
- [51] The project proponent shall make provision for infrastructure services (water supply, sewer, storm water lines etc.) to accommodate the additional load rising from population residing/planned in others lands falling within the project limits/vicinity and get the service estimates approved from HUDA before starting construction.
- [52] The project proponent shall provide separate set of infrastructure facilities such as water supply, sewerage, storm drainage and STP etc. for two different sectors.

Operational Phase:

- [a] "Consent to Operate" shall be obtained from Haryana State Pollution Control Board under Air and Water Act and a copy shall be submitted to the SEIAA, Haryana.
- [b] The Sewage Treatment Plant (STP) shall be installed for the treatment of the sewage to the prescribed standards including odour and treated effluent will be recycled to achieve zero exit discharge. The installation of STP shall be certified by an independent expert and a report in this regard shall be submitted to the SEIAA, Haryana before the project is commissioned for operation. Tertiary treatment of waste water is mandatory. The project proponent shall remove not only Ortho-Phosphorus but total Phosphorus to the extent of less than 2mg/liter. Similarly total Nitrogen level shall be less than 2mg/liter in tertiary treated waste water. Discharge of treated sewage shall

conform to the norms and standards of CPCB/ HSPCB, whichever is environmentally better. Project Proponent shall implement such STP technology which does not require filter backwash.

- [c] Separation of the grey and black water should be done by the use of dual plumbing line. Treatment of 100% grey water by decentralized treatment should be done ensuring that the re-circulated water should have BOD level less than 5 mg/litre and the recycled water will be used for flushing, gardening and DG set cooling etc. to achieve zero exit discharge.
- [d] For disinfection of the treated wastewater ultra-violet radiation or ozonization process should be used.
- [e] Diesel power generating sets proposed as source of back-up power for lifts, common area illumination and for domestic use should be of enclosed type and conform to rules made under the Environment (Protection) Act, 1986. The location of the DG sets shall be in the open as promised by the project proponent with appropriate stack height above the highest roof level of the project as per the CPCB norms. The diesel used for DG sets shall be ultra low sulphur diesel (35 ppm sulphur), instead of low sulphur diesel.
- [f] Ambient Noise level should be controlled to ensure that it does not exceed the prescribed standards both within and at the boundary of the Proposed Residential Plotted Colony project.
- [g] The project proponent as stated in the proposal should maintain at least 34.8% as green cover area for tree plantation especially all around the periphery of the project and on the road sides preferably with local species which can provide protection against noise and suspended particulate matter. The open spaces inside the project shall be preferably landscaped and covered with vegetation/grass, herbs & shrubs. Only locally available plant species shall be used.
- [h] The project proponent shall strive to minimize water in irrigation of landscape by minimizing grass area, using native variety, xeriscaping and mulching, utilizing efficient irrigation system, scheduling irrigation only after checking evapotranspiration data.
- [i] Rain water harvesting for roof run-off and surface run-off, as per plan submitted should be implemented. Before recharging the surface run off, pre-treatment through sedimentation tanks must be done to remove suspended matter, oil and grease. The bore well for rainwater recharging shall be kept at least 5 mts. above the highest ground water table. Care shall be taken that contaminated water do not enter any RWH pit. The project proponent shall avoid Rain Water Harvesting of first 10 minutes of rain fall. Roof top of the building shall be without any toxic material or paint which can contaminate rain water. Wire mesh and filters should be used wherever required.

- [j] The ground water level and its quality should be monitored regularly in consultation with Central Ground Water Authority.
- [k] A report on the energy conservation measures conforming to energy conservation norms finalized by Bureau of Energy Efficiency should be prepared incorporating details about building materials & technology, R & U Factors etc and submitted to the SEIAA, Haryana in three months time.
- [l] Energy conservation measures like installation of LED only for lighting the areas outside the building and inside the building should be integral part of the project design and should be in place before project commissioning. Use of solar panels must be adapted to the maximum energy conservation.
- [m] The Project Proponent shall use zero ozone depleting potential material in insulation, refrigeration, air-conditioning and adhesive. Project Proponent shall also provide Halon free fire suppression system.
- [n] The solid waste generated should be properly collected and segregated as per the requirement of the MSW Rules, 2000 and as amended from time to time. The bio-degradable waste should be treated by appropriate technology at the site ear-marked within the project area and dry/inert solid waste should be disposed off to the approved sites for land filling after recovering recyclable material.
- [o] The provision of the solar water heating system shall be as per norms specified by HAREDA and shall be made operational in each building block.
- [p] The traffic plan and the parking plan proposed by the Project Proponent should be adhered to meticulously with further scope of additional parking for future requirement. There should be no traffic congestion near the entry and exit points from the roads adjoining the proposed project site. Parking should be fully internalized and no public space should be used.
- [q] The Project shall be operationalized only when HUDA/local authority will provide domestic water supply system in the area.
- [r] Operation and maintenance of STP, solid waste management and electrical infrastructure, pollution control measures shall be ensured even after the completion of project.
- [s] Different type of wastes should be disposed off as per provisions of municipal solid waste, biomedical waste, hazardous waste, e-waste, batteries & plastic rules made under Environment Protection Act, 1986. Particularly E-waste and Battery waste shall be disposed of as per existing E-waste Management Rules 2011 and Batteries Management Rules 2001. The project proponent should maintain a collection center for E-waste and it shall be disposed of to only registered and authorized dismantler / recycler.