

F. No. 19-2/2013-IA-III
Government of India
Ministry of Environment, Forest and Climate Change
(Impact Assessment Division)

Indira Paryavaran Bhawan
Aliganj, Jor Bagh Raod
New Delhi-110 003

Dated: 09th June, 2015

OFFICE MEMORANDUM

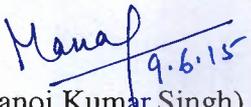
Sub: Clarification regarding Gazette Notification No. S.O. 3252 (E) dated 22.12.2014 on applicability of Environment Clearance-reg.

Vide Gazette Notification No. S.O. 3252 (E) dated 22.12.2014, the Ministry of Environment, Forest and Climate Change has exempted the School, College and Hostel for educational institution from obtaining prior Environment Clearance under the provisions of the EIA Notification, 2006 subject to Sustainable Environmental Management.

The Ministry is in receipt of representation from various educational institutions regarding issuing clarification on status of universities, and other educational institutions. The matter has been further examined in the Ministry and it is clarified that the Notification No. S.O. 3252 (E) dated 22.12.2014 provides exemption to buildings of educational institutions including universities from obtaining prior Environment Clearance under the provisions of the EIA Notification, 2006 subject to sustainable environmental Management. In case of medical universities/institutes the component of Hospitals will continue to require prior Environment Clearance.

The Guidelines to be followed for building projects to ensure sustainable environmental management in pursuance of Notification No. S.O.3252 (E) of 22nd December 2014 under EIA Notification 2006 are at Annexure-I.

This issues with the approval of the Competent Authority.


(Manoj Kumar Singh)
Joint Secretary

Copy to:-

1. All the officers of IA Division
2. The Chairperson/Member Secretaries of all the SEIAAs/SEACs.
3. The Chairman of all the Expert Appraisal Committees
4. The Chairman, CPCB
5. The Chairpersons/Member Secretaries of all SPCBs/UTPCCs.
6. IT Consultant, MoEFCC for uploading into the website.

Copy for information:

1. PS to MOS (Independent Charge).
2. PPS to Secretary (EF&CC).
3. All Divisional Head.
4. Website, MoEF&CC
5. Guard File.

**GUIDELINES TO BE FOLLOWED FOR BUILDING AND CONSTRUCTION PROJECTS
TO ENSURE SUSTAINABLE ENVIRONMENTAL MANAGEMENT
IN PURSUANCE OF NOTIFICATION No. S.O. 3252 (E) OF 22nd DECEMBER, 2014
UNDER ENVIRONMENT IMPACT ASSESSMENT NOTIFICATION, 2006**

[INDUSTRIAL SHED AND EDUCATIONAL INSTITUTIONS]

The Notification dated 22nd December, 2014 has taken out the industrial shed*, school, college, hostel for educational institution from the requirement of prior Environment Clearance (EC) under EIA Notification, 2006 and stipulated that such buildings shall ensure sustainable environmental management, solid and liquid waste management, rain water harvesting and may use recycled materials such as fly ash bricks. These Guidelines will be applicable to all buildings and constructions which come under the ambit of Notification No. S.O. (E) 3252 of 22nd. December 2014. To ensure sustainable environment management these guidelines as suited will be applicable on the projects under Item 8 (a) of EIA Notification in addition to the conditions stipulated in the EC.

Land, Air, Noise, Water, Energy, Biological, Socio-economic, and Solid & other Waste Management are the main environment facets to be considered in relation to pre, during & post building construction, therefore, it is necessary to ascertain the baseline data of these environmental facets.

The project proponent should file the information about description of project as per points described below prior to start of the project. Information pertaining to compliance on other points be filed at six monthly interval to the respective State Pollution Control Board and the Regional Office of the Ministry of Environment, Forests and Climate Change.

The compliance of the following will be ensured by the respective State Pollution Control Board before giving 'Consent-to-Operate' to industries and by the Local Urban Bodies and the Development Authorities while giving the 'Occupancy Certificate' to the buildings and constructions. These Certificates should be submitted by the above authorities to the Regional Office of MoEFCC. Ministry of Environment, Forest and Climate Change can assess/evaluate/monitor the compliance of conditions enumerated in the Guidelines through verification by Regional Offices or deputed organisations / person.

S. No.	Environmental Parameters	Implementation and monitoring parameters to be included in local by-laws.
a.	Pre-requisites	<p>Brief description of the project</p> <p>01.Name of the Project, Survey number, Village, Taluka, District, State to be mentioned with Google Earth Image and GPS Co-ordinates of the plot to be submitted.</p> <p>02.Location & distance from nearby landmark places / services to be mentioned.</p> <p>03.Total Built-up area (FSI and Non- FSI) should be mentioned with detailed calculations certified by local planning and sanctioning authority.</p> <p>04.Form 1, Form 1A and Consolidated statement as per Environment Notification dated September 14, 2006 to be submitted to local planning and sanctioning authority, Regional Office, MoEFCC and SPCB</p>
b.	Environment Impacts on Project Land	<p>05.The building layout, set-back/side margin, podium, basement ventilation etc. is prepared based on local building bye-laws and is approved by local competent authorities. The Project Proponent shall obtain all necessary clearance/ permission from all relevant agencies including Town Planning Authority before commencing the work.</p> <p>06.Provisional fire NOC to be obtained from local CFO (Chief Fire Officer)</p> <p>07. "Consent-to-Establish and Consent-to-Operate" shall be obtained as required from State Pollution Control Board as provided in the Air (Prevention and Control of Pollution) Act, 1981 and Water (Prevention and Control of Pollution) Act, 1974</p> <p>08.The project proponent shall put in place a credible enforcement mechanism for compliance of energy conservation measures with its allottees, as projected, in perpetuity. This would be monitored by the designated Energy Conservation/ efficiency Authority in the State.</p> <p>09.Soil and ground water samples will be tested to ascertain that there is no</p>

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threat to ground water quality by leaching of heavy metals and other toxic contaminants.

10. Top fertile soil to be preserved and to be later used in landscape.
11. The excavation/demolition debris must be disposed off in designated landfill areas or to be used within site for levelling purpose. Under no circumstance, the debris will be disposed in river bed/lakes etc.
12. Undertaking to be given by project proponent that occupancy will be given only after drainage and water connections are in place.
13. Dust/smoke prevention measures such as wheel washing, water sprinkler, screening, barricading and debris chute must be installed.
14. This should comply with the provisions of eco-sensitive zone regulations, coastal zone regulations, heritage areas (identified in the master plan or issued separately as specific guidelines), water body zones (in such zones, no construction is permitted in the water-spread and buffer belt of 30 m minimum around the FTL [full tank level]), various hazard prone area regulations, and others if the site falls under any such area.
15. The site planning should take into account heat island effect, size and density of the built-up areas cause heat island effect, wherein higher air temperatures are created in the dense urban areas as against the low-rise surrounding built-up areas. The solar access in the morphology of clusters can be understood in terms of utilization of direct (and not reflected or diffused) solar radiation, mainly for day lighting and heat gain. This defines the minimal distances between the buildings and the relations between built-up volume and open spaces.
16. The proportion of open spaces and built-up edges should be designed such that it ensures winter solar access and summer ventilation.

c. Water

17. Proponent shall obtain permission for ground water withdrawal from State Ground Water Authority.
18. Storm water control and its re-use as per CGWB and BIS standards for various applications.
19. The natural flow of existing storm water channel should not be altered or diverted.
20. Keeping in view the use of large quantities of water in curing, measures for reducing water demand during construction should be followed. Curing water should be sprayed on concrete structures; free flow of water should not be allowed for curing. After liberal curing on the first day, all concrete structures should be painted with curing chemical to save water. Concrete structures should be covered with thick cloth/gunny bags and then water should be sprayed on them. This would avoid water rebound and will ensure sustained and complete curing. Ponds should be made using cement and sand mortar to avoid water flowing away from the flat surface while curing.
21. The developer should ensure groundwater and municipal water meet the water quality norms as prescribed in the Indian Standards for various applications (Indian Standards for drinking [IS 10500-1991], irrigation applications [IS 11624-1986]).
22. The use of potable water during construction should be minimized.
23. Separation of grey and black water should be done by the use of dual plumbing line for separation of grey and black water.
24. Source of water to be identified.
25. Water treatment measures such as filtration, softeners, RO etc should be implemented.
26. Low flow fixtures and sensors to be used to promote water conservation.
27. Water meters to be installed to monitor consumption of water.
28. Water balance table/chart should be prepared.

d. Waste Water Treatment

29. Sewage treatment plant of capacity capable of treating 100% waste water to be installed on site.
30. Tertiary treatment such as dual media filter, activated carbon filter and ozonization/ chlorination to be provided so that the treated water

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		<p>characteristics are as per Central Pollution Control Board (CPCB) norms.</p> <p>31. If STP and pump room are installed in basement, adequate ventilation as per NBC air changes norms should be provided.</p> <p>32. Treated waste water to be recycled for flushing and gardening.</p>
e.	Drainage Pattern	<p>33. Excess treated water disposal plan to be submitted.</p> <p>34. Total paved area of the site under parking, roads, paths or any other use should not exceed 25% of the site area or net imperviousness of the site not to exceed the imperviousness factor as prescribed by the NBC 2005 (BIS 2005b), whichever is more stringent.</p> <p>35. The final disposal point for excess treated water discharge will be municipal sewer for areas where sewerage network is present.</p> <p>36. In areas where sewerage network is absent, the excess treated water can be used for agriculture or can be disposed off as per CPCB rules.</p> <p>37. Storm water disposal plan to be submitted.</p> <p>38. The final disposal point for storm water will be municipal storm drain for areas where storm water network is present.</p> <p>39. In areas where storm water network is absent, the storm water surface runoff can be disposed off in nearby natural water streams/ nallas.</p>
f.	Ground Water	<p>40. Hydro-geological survey for ground water analysis shall be submitted.</p> <p>41. Aquifer capacity and Ground water yield shall be determined.</p> <p>42. Rain water harvesting plan shall be submitted indicating the number of recharge pits and bores and total rain water to be harvested.</p> <p>43. Rain water to be harvested and as a safety precaution, rainwater on-line filters be provided as per NBC norms.</p>
g.	Solid Waste Management	<p>A} During construction phase:</p> <p>44. Disposal of muck during construction phase should not create any adverse effect on the neighbouring 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. The Rules on the Solid Waste Management including Construction Waste issued by the MoEFCC as amended will be applicable.</p> <p>45. 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.</p> <p>46. Any hazardous waste generated during construction phase, should be disposed off as per applicable rules and norms with necessary approvals of the State Pollution Control Board.</p> <p>47. Miscellaneous site debris such as broken tiles etc shall be used on site for leveling /backfilling purpose.</p> <p>48. Packaged STP /mobile toilets shall be provided for labour camp.</p> <p>49. Polymer bags used for cement and gypsum shall be handed over to authorized recyclers.</p> <p>50. Cardboard boxes and other packaging material will be handed over to authorized recyclers.</p> <p>B} Post construction phase:</p> <p>51. Organic waste composter (OWC) or Vermiculture pits shall be installed on site for biodegradable waste treatment (capacity calculated at 0.3kg/tenement/day) The manure generated shall be used for landscaping.</p> <p>52. The non-biodegradable waste or e-waste shall be handed over to authorized recyclers.</p> <p>53. STP sludge shall be removed using filter press or centrifuge mechanism. The dried sludge cakes shall be used as manure in landscaping.</p> <p>54. Minimize waste generation; streamline waste segregation, storage, and</p>

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disposal; and promote resource recovery from waste.

55. Resource recovery from waste: Employ resource recovery systems for biodegradable waste as per the Solid Waste Management and Handling Rules, 2000 of the MoEFCC. Make arrangements for recycling of waste through local dealers.
56. Use of covering sheets should be done for trucks to prevent dust dispersion from the trucks and washing of tyres when trucks with soil / debris coming on road.
57. Hazardous Waste Management: Products, such as paints, cleaners, oils, batteries, and pesticides that contain potentially hazardous ingredients require special care when being disposed. Improper disposal of household hazardous wastes can include pouring them down the drain, on the ground, into storm sewers, or in some cases putting them out with the trash.

The hazardous wastes from construction and demolition activities are centering oil, formwork oil, tar and tar products (bitumen, felt, waterproofing compounds, etc.), wood dust from treated wood, lead containing products, chemical admixtures, sealants, adhesive solvents, Explosives and related products and equipment used in excavation, acrylics, and silica, etc.

h. Air Quality and Noise Levels.

A) During construction phase:

58. The diesel required for operating DG sets shall be stored in underground tanks and clearance from Chief Controller of Explosives shall be taken, as applicable.
59. Ambient noise levels should 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 should be closely monitored during construction phase. Adequate measures should be made to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by CPCB/ SPCB.
60. Burning of waste to be banned.
61. The construction site DG to be maintained regularly so that the smoke emission and noise levels are as per permissible norms.
62. Regular P.U.C check for all construction machinery coming on site be done.
63. Noise cancellation and insulation devices such as mufflers, barricades etc to be used to avoid noise propagation to adjoining areas.

B) Post construction phase:

64. DG to be regularly maintained so that the smoke emission and noise levels are as per permissible norms. It shall be at least 6 meters away from the boundary.
65. Air quality monitoring to be done quarterly.
66. STP and water pumps, air blowers etc should be installed with noise cancellation devices or suitable acoustical enclosures to be given so that the noise levels as per NBC norms are maintained.

C) During Construction & Operation

67. The provisions of the Air (Prevention and Control of Pollution) Act, 1981 (14 of 1981) and the rules made thereunder be complied for control of noise pollution during construction and operation.
68. Setting up the barriers: National Building Code 2005 suggests that design solutions such as barrier blocks should be used to reduce external LA10 noise levels to at least 60-70 dB (A) at any point 1.0 m from any inward looking façade. Green belts and landscaping could act as an effective means to control noise pollution. In case of railway tracks, a minimum distance of 50m to 70m may be provided between the buildings and the tracks.

i. Energy

69. Appropriate processes and material be used to encourage reduction in carbon foot print.
70. Use of glass be reduced by up-to 40% to reduce the electricity consumption and load on air-conditioning. If necessary, use high quality double glass with special reflective coating in windows.
71. Solar water heater to be provided adequately.

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72. Common area lighting should be Solar / LED.
73. Install energy meters to monitor overall consumption, and timer-switch for all common area lighting, and other consumption of measurable energy.
74. Fly ash should be used as building material in the construction as per the provisions of Fly Ash Notification of September, 1999 and amended as on 27th August, 2003 and 3rd November, 2009.
75. Wherever possible recycled materials having low embodied energy be used.
76. Use of light coloured, reflective roofs having an SRI (solar reflectance index) of 50% or more should be promoted. The dark coloured, traditional roofing finishes have SRI varying from 5% to 20%.
77. 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 systems include air conditioning systems, indoor lighting systems, water heaters, air heaters, and air circulation devices.
78. Use the concept of passive solar design of buildings using architectural design approaches that minimize energy consumption in buildings by integrating conventional energy-efficient devices, such as mechanical and electrical pumps, fans, lighting fixtures, and other equipment, with the passive design elements, such as building orientation, landscaping, efficient building envelope, appropriate fenestration, increased day lighting design, and thermal mass.
79. The building should be oriented optimally based on Sun-path and engineering analysis to curtail excessive solar radiations.
80. Lighting systems should comply with the ECBC 2007 and applicable to interior spaces of buildings, exterior building features, including facades, illuminated roofs, architectural features, entrances, exits, loading docks, and illuminated canopies, exterior building grounds etc. except emergency lighting and lighting in dwelling units.
81. All the point light sources installed in the building for general lighting shall be LEDs or LEDs or equivalent. All the linear light sources installed in the building for general lighting shall be T-5 or at least 4 Star BEE rated TFLs or equivalent. The installed interior lighting power shall not exceed the LPD (Lighting Power Density) value as recommended by ECBC 2007.
82. Automatic Lighting shutoff control be installed: Interior lighting/Exterior Lighting systems shall be equipped with an automatic control device in accordance with ECBC 2007. Occupancy sensors that shall turn the lighting off within 30 minutes of occupant leaving the space. It should also have option for manual turning on lights when the space is occupied. ECBC requires controls in day lit areas that are capable of reducing the light output from luminaries by at least half and Controlling of exterior lighting with photo-controls where lighting can be turned off after a fixed interval.
83. The tapping of renewable sources of energy for lighting, heating, cooling and ventilation needs, deserve special attention. For captive solar power generation, a minimum of 15 percent of sanctioned load is the requirement.
84. Solar photovoltaic (SPV) systems are direct energy conversion systems that convert solar radiation into electric energy. SPV systems should be installed to reduced use of conventional sources of energy. Roof tops of buildings as well as other exposed areas such as of parking shades should be utilized for installation of SPV systems.
85. Hot water requirement in buildings should be met through use of various types of solar water heating systems, viz. flat plate collector; single glazed double glazed; evacuated tube collectors; and Water heating with solar concentrators.
86. The Project Proponent should ensure regular energy audit.
 - i. To validate the predicted energy consumption, thermal comfort, and visual comfort criteria by an energy auditor approved by the BEE, Government of India.

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		<p>ii. To ascertain continued safety in the operation of the electrical and mechanical systems of the building through proper maintenance by the owner or the occupants.</p> <p>87. This will be ensured in the contract document by providing for the commissioning of all electrical and mechanical systems by the respective supplier or builder. Moreover, the respective facility management group, assigned by the owner or the occupants themselves, will carry out the maintenance facilities.</p> <p>88. Energy conservation measures like installation of CFLs/LEDs 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. Use of solar panels may be done to the extent possible.</p>
j.	Traffic Movement System	89. Width of driveways, parking provision, ramp width and slope to be kept as per local bye laws.
k.	Provisions for Differently able	<p>90. The Project Proponent should provide at least the minimum level of accessibility for persons with disabilities.</p> <ul style="list-style-type: none"> • Ensure accessibility and usability of the facilities in the building by employees, visitors and clients with disabilities. • Ensure access to facilities and services by adopting appropriate site planning to eliminate barriers as per the recommended standards (NBC 2005 [BIS 2005f]). • Layout and designing of interior and exterior facilities as per principles of universal design such as prescribed by the National Building Code of India, building management policies and procedures, provision of auxiliary aids & appliances, and staff training in disability awareness.
l.	Green Belt/Green Cover	<p>91. Provide minimum 1 tree for every 80 sq.mt of plot area.</p> <p>92. Wherever trees are cut or transplanted, compensatory plantation in the ratio of 1:3 to be done in the premise.</p> <p>93. Native species of trees to be planted.</p> <p>94. Vegetation to provide as shading and promote evaporative cooling. In hot and dry climates, evaporative cooling through appropriately sized wet surfaces or fountains have a desirable effect. It should be planned for maximum benefit.</p> <p>95. The project should have detail proposal for tree plantation, landscaping, creation of water bodies etc along with a layout plan to an appropriate scale.</p>
m.	Disaster/Risk Assessment Plan	<p>96. Fire tender movement plan to be submitted.</p> <p>97. Firefighting system to be provided as per the fire NOC.</p> <p>98. Turning radius to be kept as per Fire NoC or as prescribed in the local by-laws.</p> <p>99. Public address system to be installed as per the Fire Safety norms.</p> <p>100. Place of assembly to be indicated.</p>
n.	Socio Economic Impact and CSR	<p>101. Biodegradable and non-biodegradable waste bins to be provided for every household to promote waste segregation at source.</p> <p>102. Importance of environment and various environment drives to be initiated.</p> <p>103. Importance of maintenance of environment infrastructure to be showcased by issuing pamphlets etc.</p> <p>104. Provision for health care, medical kit, crèche, First-Aid room shall be given during construction phase for the construction workers.</p> <p>105. Adequate shelter for resting hours, crèche, clean and potable drinking water to be provided to construction workers.</p> <p>106. All local labour welfare laws must be complied.</p> <p>107. Concerns of the communities being affected by the Project are to be responded on priority, and all possible CSR is to be rendered to make the responses effectively beneficial..</p>

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o. Environment Management Plan (EMP)

108. Detailed environment management plan comprising of estimated capital cost and O&M cost for the following environment infrastructure should be submitted:

- a. Sewage Treatment Plant
- b. Landscaping
- c. Rain Water Harvesting
- d. Power backup for environment infrastructure.
- e. Environment Monitoring
- f. Solid Waste Management
- g. Solar and Energy Conservation

109. Environment Monitoring Cell with defined functions and responsibility shall be set up and its details be submitted.

END NOTE:

Industrial Shed*: The word 'industrial shed' implies building (whether RCC or otherwise) which is being used for housing plant and machinery of industrial units and shall include godowns and buildings connected with production related and other associated activities of the unit in the same premise.

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