IGBC Green New Building Rating System - Version 3.0

(Abridged Reference Guide)

Third Addendum - April 2015

**(Applicable to all the registered projects
under IGBC Green New Building Rating System - Version 3.0,
since the launch in July 2014)**

<table>
<tr><th>Page No.</th><th colspan="2">Credit Number / Location</th><th>Addendum</th></tr>
<tr><td>38</td><td>SSP Cr 6</td><td>Heat Island Effect, Non-roof

Compliance Options:

Option 2: Covered Parking

Notes</td><td>Option 2: Covered Parking

<u>Existing Note:</u>

• The exposed roof of the parking shall meet ‘Heat Island Effect - Roof’ criteria

<u>New Notes:</u>

• Parking spaces under cover’ here refers to structured covered parking.
• The exposed roof of the parking shall meet ‘Heat Island Effect - Roof’ criteria</td></tr>
<tr><td>39, 40</td><td>SSP Cr 7</td><td>Heat Island Effect, Roof

Compliance Options:

Option 1: High Reflective Materials</td><td>Option 1: High Reflective Materials

Table 2 - Solar Reflective Index (SRI) values for different roof types

<u>Existing Table</u>

<table>
<tr><th>Roof Type</th><th>Slope</th><th>Minimum SRI Value</th></tr>
<tr><td>Low-sloped roof</td><td>≤ 2:12</td><td>78</td></tr>
<tr><td>Steep-sloped roof</td><td>>2:12</td><td>29</td></tr>
</table>

<u>New Table</u>

<table>
<tr><th>Roof Type</th><th>Slope</th><th>Minimum SRI Value</th><th>Maximum SRI Value</th></tr>
<tr><td>Low-sloped roof</td><td>≤ 2:12</td><td>78</td><td>-</td></tr>
<tr><td>Steep-sloped roof</td><td>>2:12</td><td>29</td><td>64</td></tr>
</table>
</td></tr>
</table>

		Option 3: Combination High Reflective Materials and Vegetation	**Option 3 - Combination High Reflective Materials and Vegetation** **Existing Text** "Install combination of high reflective materials and vegetation to cover at least 75% of the exposed roof area, including covered parking." **New Text** "Install combination of materials with high solar reflective index and vegetation to cover at least 75% of the exposed roof area, including covered parking."

<table>
<tr>
<td>51</td>
<td>WC Mandatory Requirement 1</td>
<td>Rainwater Harvesting, Roof & Non-roof

Table 3 - Criteria to arrive at ‘One-day Rainfall’</td>
<td>
<u>Existing threshold for Mandatory Requirement</u>:
<table>
<tr><th>S No</th><th>Average Peak Month Rainfall in mm</th><th>One-day Rainfall (% of Average Peak Month Rainfall)</th></tr>
<tr><td>1</td><td>Upto 250</td><td>12%</td></tr>
<tr><td>2</td><td>251 – 350</td><td>10%</td></tr>
<tr><td>3</td><td>351 – 500</td><td>8%</td></tr>
<tr><td>4</td><td>501 – 700</td><td>6%</td></tr>
<tr><td>5</td><td>701 & above</td><td>4%</td></tr>
</table>
<u>New threshold for Mandatory Requirement:</u>
<table>
<tr><th>S No</th><th>Average Peak Month Rainfall in mm</th><th>One-day Rainfall (% of Average Peak Month Rainfall)</th></tr>
<tr><td>1</td><td>Upto 250</td><td>9%</td></tr>
<tr><td>2</td><td>251 – 350</td><td>7.5%</td></tr>
<tr><td>3</td><td>351 – 500</td><td>6%</td></tr>
<tr><td>4</td><td>501 – 700</td><td>4.5%</td></tr>
<tr><td>5</td><td>701 & above</td><td>3%</td></tr>
</table>
</td>
</tr>
</table>

<table>
<tr>
<td>59</td>
<td>WC Cr 3</td>
<td>Rainwater Harvesting, Roof & Non-roof

Table 6 - Criteria to arrive at ‘One-day Rainfall’</td>
<td>
<u>Existing threshold for Credit</u>:
<table>
<tr><th rowspan="2">S No</th><th rowspan="2">Average Peak Month Rainfall (mm)</th><th colspan="2">One-day Rainfall (% of Average Peak Month Rainfall)</th></tr>
<tr><th>2 points</th><th>4 points</th></tr>
<tr><td>1</td><td>Upto 250</td><td>15%</td><td>18%</td></tr>
<tr><td>2</td><td>251 – 350</td><td>12.5%</td><td>15%</td></tr>
<tr><td>3</td><td>351 – 500</td><td>10%</td><td>12%</td></tr>
<tr><td>4</td><td>501 – 700</td><td>7.5%</td><td>9%</td></tr>
<tr><td>5</td><td>701 & above</td><td>5%</td><td>6%</td></tr>
</table>
<u>New threshold for Credit</u>:
<table>
<tr><th rowspan="2">S No</th><th rowspan="2">Average Peak Month Rainfall (mm)</th><th colspan="3">One-day Rainfall (% of Average Peak Month Rainfall)</th></tr>
<tr><th>2 points</th><th>3 points</th><th>4 points</th></tr>
<tr><td>1</td><td>Upto 250</td><td>12%</td><td>15%</td><td>18%</td></tr>
<tr><td>2</td><td>251 – 350</td><td>10%</td><td>12.5%</td><td>15%</td></tr>
<tr><td>3</td><td>351 – 500</td><td>8%</td><td>10%</td><td>12%</td></tr>
<tr><td>4</td><td>501 – 700</td><td>6%</td><td>7.5%</td><td>9%</td></tr>
<tr><td>5</td><td>701 & above</td><td>4%</td><td>5%</td><td>6%</td></tr>
</table>
</td>
</tr>
</table>

<table>
<tr>
<td>60</td>
<td>WC Cr 3</td>
<td>Rainwater Harvesting, Roof & Non-roof

Table 7 - Criteria to arrive at ‘One-day Rainfall’ for Exemplary Performance</td>
<td>
<u>Existing threshold for Exemplary Performance:</u>
<table>
<tr><th>S No</th><th>Average Peak Month Rainfall (mm)</th><th>One-day Rainfall (% of Average Peak Month Rainfall)</th></tr>
<tr><td>1</td><td>Upto 250</td><td>24%</td></tr>
<tr><td>2</td><td>251 – 350</td><td>20%</td></tr>
<tr><td>3</td><td>351 – 500</td><td>16%</td></tr>
<tr><td>4</td><td>501 – 700</td><td>12%</td></tr>
<tr><td>5</td><td>700 & above</td><td>8%</td></tr>
</table>
<u>New threshold for Exemplary Performance:</u>
<table>
<tr><th>S No</th><th>Average Peak Month Rainfall (mm)</th><th>One-day Rainfall (% of Average Peak Month Rainfall)</th></tr>
<tr><td>1</td><td>Upto 250</td><td>21%</td></tr>
<tr><td>2</td><td>251 – 350</td><td>17.5%</td></tr>
<tr><td>3</td><td>351 – 500</td><td>14%</td></tr>
<tr><td>4</td><td>501 – 700</td><td>10.5%</td></tr>
<tr><td>5</td><td>700 & above</td><td>7%</td></tr>
</table>
</td>
</tr>
</table>

Summary of new thresholds: *(for reference)*

S No	Average Peak Month Rainfall (mm)	One-day Rainfall (% of Average Peak Month Rainfall)				
		MR	2 Points	3 Points	4 points	EP
1	Upto 250	9%	12 %	15%	18%	21%
2	251-350	7.5%	10%	12.5%	15%	17.5%
3	351-500	6%	8%	10%	12%	14%
4	501-700	4.5%	6%	7.5%	9%	10.5%
5	700 & above	3%	4%	5%	6%	7%

Page No.	Credit Number / Location		Addendum
70,71	EE Mandatory Requirement 2	**Minimum Energy Efficiency** Compliance Options: Case A - Air-conditioned Buildings Option 1 - Performance Based Approach (Whole Building Simulation) Notes:	**Option 1 - Performance Based Approach (Whole Building Simulation)** **Existing Notes** • In tenant-occupied buildings, the developer shall install high-side air-conditioned systems to cater to tenant-occupied areas • In tenant-occupied buildings, if lighting is in tenant scope, the LPD in the proposed case shall be same as the base case. • Projects which use on-site renewable energy sources (such as solar energy, wind power, biomass, etc.,) can subtract renewable energy generated from the total annual energy consumption of the proposed case. Whereas, projects which use solar hot water systems can model the systems in the proposed case, as against electrical heaters in the base case, to show energy savings. **New Notes** • In tenant-occupied buildings, if air-conditioning equipment are installed by tenants, the developer would mandate the installation of efficient air-conditioning equipment for tenant occupied spaces in tenant agreement, with minimum efficiency requirements (COP/ EER) as per the reference standard/ code. In cases where air-conditioning equipment is yet to be installed, the proposed case efficiency during simulation shall be same as the base case.

			• In tenant-occupied buildings, if lighting is in tenant scope, the developer would mandate the installation of efficient lighting systems in tenant agreement, with LPD values as per the reference standard/ code. In cases where lighting systems are yet to be installed, the proposed case LPD during simulation shall be same as the base case. • Projects that use on-site renewable energy sources (such as solar energy, wind power, biomass, etc.,) can subtract renewable energy generated from the total annual energy consumption of the proposed case. Projects that use solar hot water systems can model the systems in the proposed case, as against electrical heaters in the base case, to show energy savings. • Projects (such as laboratories, hospitals etc.,) which have process loads not related to building operations should be considered during simulation. While reporting, such loads can be excluded from the base case and proposed case annual energy consumption. The process loads which are excluded shall be justified with a narrative.

99	BMR Credit 2	**Organic Waste Management, Post-occupancy** Compliance Options: Notes:	**Organic Waste Management, Post-occupancy** **Compliance Options:** **Existing Text** "Install an on-site waste treatment system for handling at least 50% of the organic (kitchen and garden) waste generated in the building (including tenant-occupied areas)." **New Text** "Install an on-site waste treatment system for handling at least 50% of the organic (kitchen) waste generated in the building (including tenant-occupied areas). **Notes** **Existing Notes** The text under Notes – "For calculation, food waste can be considered as 0.1 kg per person per day (i.e. 0.1 kg/ person/ day) or as prescribed by the local byelaw, whichever is more stringent; landscaped waste can be considered as 0.25 kg per sq.m per day (i.e. 0.25 kg/ sq.m/ day)." **New Notes** "For calculation, food waste can be considered as 0.1 kg per person per day (i.e. 0.1 kg/ person/ day) or as prescribed by the local byelaw, whichever is more stringent."