**Comment/Explanation\*:***Include your justification for your proposed change to the draft standard below.*
\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

* There does not seem to be a line item that reasonably addresses insulation materials waste rates. It is common practice to allow for 8% unless it used for modular off-site constructin where rates are much lower. Often insulation cut off pieces are used to fill in smaller areas needing insulation so the scap rates are often low.
* There are several places in 10.3.1 that mention “brand”. At least in the case of insulation this would not be helpful and in some cases be harmful to verification efforts without more information. For instance, there are several insulation materials on the market from the same manufacurers with the same brand name but they have different product names and their R-value, function, and GWP contributions are very different.

**Proposed Change to the Draft Standard\***
*Use “strikethrough” and “underline” formatting to indicate all proposed changes. Changes must be shown with “hard-formatting” strikethrough and underline, not “track changes”.*

*Use a color other than red to indicate proposed changes to the draft.*\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Table 10.2.1 Waste Rates for Products

|  |  |
| --- | --- |
| **Building Product** | **On-site waste rate** |
| Prefabricated assemblies: standardized assemblies and small MEP equipment (400 lbs or less).(a) (b) | 1% |
| Prefabricated assemblies: custom assemblies made to order and large MEP equipment (more than 400 lbs). (a) (c) | 0% |
| Ready-mix concrete delivered by a concrete mixer truck and poured in place | 5% |
| Sprayed cementitious material (shotcrete, sprayed fire resistive material) | 10% |
| Piles: steel piles or casting | 3% |
| Troweled material (mortar, skim coating) | 15% |
| Liquid applied material (paint, self-leveling concrete topping, roof membranes) | 10% |
| Blocks and bricks | 5% |
| Tiles, siding, and carpet flooring | 8% |
| Standard sheets, boards, or panels cut-to-size on site as needed: metal (steel decking, roofing, flashing, welded wire fabric) (d) | 10% |
| Standard sheets, boards, or panels cut-to-size on site as needed: non-metal (gypsum, plywood) (d) | 15% |
| Insulation materials (all types) | 8% |
| General standard-length elements and trimmed as needed on site to required length (metal studs, light-weight timber framing, plumbing pipes) | 10% |
| Steel rebar | 3% |
| Default waste rate for all other elements not listed in this table | 5% |

…

Table 10.3.1 Verification Requirements for Confirmed Assessments

|  |  |  |
| --- | --- | --- |
| Insulation | Measure the dimensions of all insulated areas and verify dimensions match the *construction documents* to the nearest square foot and R-values ~~to within R-2~~. Determine and record all unique insulation types, ~~brands~~ and R-values and compare with *construction documents*. | Record of visual confirmation or photographs of each insulation type and ~~brand and/or brand verification~~ by receipts or other accepted documentation.  |