

## CHAPTER 16 STRUCTURAL DESIGN

### SECTION 1605.3.1 IBC Interpretation No. 17-05 2000 Edition Issued: 08-19-05

**1605.3.1 Basic load combinations.** Where allowable stress design (working stress design), as permitted by this code, is used, structures and portions thereof shall resist the most critical effects resulting from the following combinations of loads:

$D$	<b>(Formula 16-7)</b>
$D + L$	<b>(Formula 16-8)</b>
$D + L + (L_r \text{ or } S \text{ or } R)$	<b>(Formula 16-9)</b>
$D + (W \text{ or } 0.7E) + L + (L_r \text{ or } S \text{ or } R)$	<b>(Formula 16-10)</b>
$0.6D + W$	<b>(Formula 16-11)</b>
$0.6D + 0.7E$	<b>(Formula 16-12)</b>

**Exceptions:**

1. Crane hook loads need not be combined with roof live load or with more than three-fourths of the snow load or one-half of the wind load.
2. Flat roof snow loads of 30 pounds per square foot (1.44 kN/m<sup>2</sup>) or less need not be combined with seismic loads. Where flat roof snow loads exceed 30 pounds per square foot (1.44 kN/m<sup>2</sup>), 20 percent shall be combined with seismic loads.



**Q:** Does Exception 2 to Section 1605.3.1 apply to Formula 16-12 even though this load combination does not include the snow term?

**A:** No. This is an exception to the requirement to combine the effects of snow loads and earthquake loads as would otherwise be required by Formula 16-10.

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