Coast Guard, DHS

§ 171.055 Intact stability requirements for a monohull sailing vessel or a monohull auxiliary sailing vessel.

(a) Except as specified in paragraph (b) of this section, each monohull sailing vessel and auxiliary sailing vessel must be shown by design calculations to meet the stability requirements in this section.

(b) Additional or different stability requirements may be needed for a vessel of unusual form, proportion, or rig. The additional requirements, if needed, will be prescribed by the Commandant.

(c) Each vessel must have positive righting arms in each condition of loading and operation from—

(1) 0 to at least 70 degrees of heel for service on protected or partially protected waters; and

(2) 0 to at least 90 degrees of heel for service on exposed waters.

(d) Each vessel must be designed to satisfy the following equations:

\[
\frac{1000(W)HZA}{(A)(H)} \geq X
\]

where:

\[
X = 1.0 \text{ long tons/sq. ft. (10.9 metric tons/sq. meter)}
\]

\[
\frac{1000(W)HZB}{(A)(H)} \geq Y
\]

where:

\[
Y = 1.1 \text{ long tons/sq. ft. (12.0 metric tons/sq. meter)}
\]

\[
\frac{1000(W)HZC}{(A)(H)} \geq Z
\]

where:

\[
Z = 1.25 \text{ long tons/sq. ft. (13.7 metric tons/sq. meter)}
\]

(2) For a vessel on exposed waters—