Subpart F—Determination of Light-weight Displacement and Centers of Gravity

§ 170.174 Specific applicability.
This subpart applies to each vessel for which the lightweight displacement and centers of gravity must be determined in order to do the calculations required in this subchapter.

§ 170.175 Stability test: General.
(a) Except as provided in paragraphs (c) and (d) of this section and in §170.200, the owner of a vessel must conduct a stability test of the vessel and calculate its vertical and longitudinal centers of gravity and its lightweight displacement.

(b) An authorized Coast Guard representative must be present at each stability test conducted under this section.

(c) The stability test may be dispensed with, or a deadweight survey may be substituted for the stability test, if the Coast Guard has a record of, or is provided with, the approved results of a stability test of a sister vessel.

(d) The stability test of a vessel may be dispensed with if the Coast Guard determines that an accurate estimate of the vessel’s lightweight characteristics can be made and that locating the precise position of the vessel’s vertical center of gravity is not necessary to ensure that the vessel has adequate stability in all probable loading conditions.

§ 170.180 Plans and information required at the stability test.
The owner of a vessel must provide the following Coast Guard approved plans and information to the authorized Coast Guard representative at the time of the stability test:

(a) Lines.

(b) Curves of form.

(c) Capacity plans showing capacities and vertical and longitudinal centers of gravity of stowage spaces and tanks.

(d) Tank sounding tables.

(e) Draft mark locations.

(f) General arrangement plan of decks, holds, and inner bottoms.

(g) Inboard and outboard profiles.

(h) The stability test procedure described in §170.185(g).

§ 170.185 Stability test preparations.
The following preparations must be made before conducting a stability test:

(a) The vessel must be as complete as practicable at the time of the test.

(b) Each tank vessel must be empty and dry, except that a tank may be partially filled or full if the Coast Guard Marine Safety Center determines that empty and dry tanks are impracticable and that the effect of filling or partial filling on the location of the center of gravity and on the displacement can be accurately determined.

(c) All dunnage, tools, and other items extraneous to the vessel must be removed.

(d) The water depth at the mooring site must provide ample clearance against grounding.

(e) Each mooring line must be arranged so that it does not interfere with the inclination of the unit during the test.

(f) The draft and axis of rotation selected for testing a mobile offshore drilling unit must be those that result in acceptable accuracy in calculating the center of gravity and displacement of the unit.

(g) The stability test procedure required by §170.085 must include the following:

(1) Identification of the vessel to be tested.

(2) Date and location of the test.

(3) Inclinometer data.

(4) Pendulum locations and lengths.