(static and dynamic) imposed by operation and stowage of helicopters intended to use the facility as well as environmental loadings (wind, wave, water, snow, etc.) anticipated for the unit.

- (b) The adequacy of each helicopter deck for the loadings required in paragraph (a) of this section must be shown by design calculations. Where the placement of a load affects the suitability of a structural member, the load must be evaluated in the most unfavorable position for each member.
- (c) The analysis required in paragraph (b) of this section must be based on the dead load of the structure, existing stresses in the deck when it is an integral part of a unit's structure, and each of the following loading conditions:
- (1) Uniform distributed loading. A loading of  $2kg/m^2$  (42  $1b/ft^2$ ) applied to the helicopter deck area.
- (2) Helicopter landing impact loading. The limit load established by the limit drop test in 14 CFR 29.725, or a load of not less than 75 percent of the helicopter maximum weight taken on a square area of  $0.3 \times 0.3$  m (1 ft.  $\times$  1 ft.) under each main landing gear unit applied anywhere on the helicopter deck area.
- (3) Stowed helicopter loading. The helicopter maximum weight plus inertial forces from the helicopter due to anticipated unit motions, and applicable environmental loadings including wind loads.
- (d) The landing area of each helicopter facility must—
  - (1) Have a non-skid surface;
- (2) Have drainage facilities that prevent the collection of liquids and prevent liquids from spreading to or falling on other parts of the unit;
- (3) Have recessed tie-down points; and
- (4) Be free of projections, except that landing lights or other projections may be installed around the periphery of the landing deck provided they do not interfere with landing and take-off operations.
- (e) The unprotected perimeter of each helicopter facility must have a safety net at least 1.5 meters (4.92 ft.) wide. The outer edge of the net must

not extend more than 15 centimeters (6 in.) above the surface of the deck.

(f) Each helicopter facility must have both a main and an emergency access/ egress route located as far apart from each other as practicable.

## § 108.237 Fuel storage facilities.

- (a) Helicopter fuel storage tanks must be installed as far as practicable from—
  - (1) The landing area; and
  - (2) Each source of vapor ignition.
- (b) Independent tanks must meet Subpart 58.50 of this Chapter.
- (c) Marine portable fuel stowage tanks must meet Part 64 of this chapter.
- (d) Each marine portable fuel stowage tank must have a means to contain fuel spills or leaks.

[CGD 73–251, 43 FR 56808, Dec. 4, 1978, as amended by USCG–1999–6216, 64 FR 53226, Oct. 1, 1999]

## § 108.239 Fuel transfer equipment.

- (a) Each nozzle must be a "deadman" type.
- (b) Each hose must have a storage reel.
- (c) Each hose must have a static grounding device.
- (d) Each electric fuel transfer pump must have a control with a fuel transfer pump operation indicator light at the pump.
- (e) There must be a fuel pump shut off at each of the access routes required by §108.235(f).
- (f) Each fuel transfer pump and each hose reel must have a means to contain fuel spills or leaks.
- (g) Each hose must meet chapter 3 "Aircraft Fueling Hose" of National Fire Protection Association Standard for Aircraft Fuel Servicing (N.F.P.A. No. 407–1975).

## § 108.241 Visual aids.

- (a) Each helicopter deck must-
- (1) Have a wind direction indicator located in an unobstructed area readily visible to helicopter pilots approaching the deck:
- (2) Be fitted around the perimeter with yellow and blue lights in alternate order, not more than 3 meters (10 ft.) apart; and
- (3) Be marked with—