§ 108.221

not more than 23 centimeters (9 in.)

above the deck.

(c) For a rounded gunwale, the guard-

rail must be at the edge of the flat of

the deck.

§ 108.221 Storm rails.

Each unit must have a storm rail in

the following locations:

(a) On each deckhouse side that is

normally accessible.

(b) On each side of each passageway

that is wider than 1.83 meters (6 feet).

(c) On at least one side of each pas-

sgeway that is less than 1.83 meters (6

feet) wide.

§ 108.223 Guards on exposed equip-

ment.

Each unit must have hand covers,

guards, or rails installed on all belts,

gears, shafts, pulleys, sprockets, spin-
dles, flywheels or other reciprocating,

rotating or moving parts of machinery

or equipment normally exposed to con-
tact by personnel.

HELICOPTER FACILITIES

§ 108.231 Application.

Sections 108.231 through 108.241 apply
to each unit with a helicopter landing

facility.

§ 108.233 Location and size.

(a) Each helicopter deck must be—

(1) At least the size of the rotor di-
ameter of the largest single main rotor
helicopter that will be used on the fa-
cility; or

(2) If tandem main rotor helicopters
use the facility, at least of a size to
provide a longitudinal axis of 9⁄10 the
overall length of the helicopter, and a
width of ¾ of the overall length of the
helicopter.

NOTE: For the purpose of paragraph (a)(2)
the overall length is measured across both
main rotors in the fore and aft line.

(b) Each helicopter deck must be lo-
cated so as to provide clear approach/ de-
parture paths to enable the largest heli-
copter using the facility to operate
in all weather conditions which allow
helicopter operations.

§ 108.235 Construction.

(a) Each helicopter deck must be de-
signated to accommodate the loadings
(static and dynamic) imposed by op-
eration and stowage of helicopters in-
tended to use the facility as well as en-
vironmental loadings (wind, wave,
water, snow, etc.) anticipated for the
unit.

(b) The adequacy of each helicopter
deck for the loadings required in para-
graph (a) of this section must be shown
by design calculations. Where the
placement of a load affects the suit-
ability of a structural member, the
load must be evaluated in the most un-
favorable position for each member.

(c) The analysis required in para-
graph (b) of this section must be based
on the dead load of the structure, exist-
ing stresses in the deck when it is an
integral part of a unit’s structure, and
each of the following loading condi-
tions:

(1) Uniform distributed loading. A load-
ing of 2kg/m² (42 lb/ft²) 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 heli-
copter maximum weight taken on a
square area of 0.3×0.3 m (1 ft.×1 ft.)
under each main landing gear unit ap-
piled anywhere on the helicopter deck
area.

(3) Stowed helicopter loading. The heli-
copter maximum weight plus inertial
forces from the helicopter due to an-
ticipated unit motions, and applicable
environmental loadings including wind
loads.

(d) The landing area of each heli-
copter facility must—

(1) Have a non-skid surface;

(2) Have drainage facilities that pre-
vent the collection of liquids and pre-
vent liquids from spreading to or fall-
ing 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 op-

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