§ 31.14 Weight limits.

(b) Except as provided in § 31.17(b), allowable weight tolerances during flight testing are +5 percent and −10 percent.

[Amdt. 31–4, 45 FR 60179, Sept. 11, 1980]

§ 31.16 Empty weight.

The empty weight must be determined by weighing the balloon with installed equipment but without lifting gas or heater fuel.

[Amdt. 31–4, 45 FR 60179, Sept. 11, 1980]

§ 31.17 Performance: Climb.

(a) Each balloon must be capable of climbing at least 300 feet in the first minute after takeoff with a steady rate of climb. Compliance with the requirements of this section must be shown at each altitude and ambient temperature for which approval is sought.

(b) Compliance with the requirements of paragraph (a) of this section must be shown at the maximum weight with a weight tolerance of +5 percent.

[Amdt. 31–4, 45 FR 60179, Sept. 11, 1980]

§ 31.19 Performance: Uncontrolled descent.

(a) The following must be determined for the most critical uncontrolled descent that can result from any single failure of the heater assembly, fuel cell system, gas value system, or maneuvering vent system, or from any single tear in the balloon envelope between tear stoppers:

(1) The maximum vertical velocity attained.

(2) The altitude loss from the point of failure to the point at which maximum vertical velocity is attained.

(3) The altitude required to achieve level flight after corrective action is initiated, with the balloon descending at the maximum vertical velocity determined in paragraph (a)(1) of this section.

(b) Procedures must be established for landing at the maximum vertical velocity determined in paragraph (a)(1) of this section and for arresting that descent rate in accordance with paragraph (a)(3) of this section.

[Amdt. 31–4, 45 FR 60179, Sept. 11, 1980]

§ 31.20 Controllability.

The applicant must show that the balloon is safely controllable and maneuverable during takeoff, ascent, descent, and landing without requiring exceptional piloting skill.

[Amdt. 31–3, 41 FR 55474, Dec. 20, 1976]