

V_{LOF} and at which the landing gear is fully retracted) and in the configuration used in §25.111 but without ground effect, the steady gradient of climb must be positive for two-engine airplanes, and not less than 0.3 percent for three-engine airplanes or 0.5 percent for four-engine airplanes, at V_{LOF} and with—

(1) The critical engine inoperative and the remaining engines at the power or thrust available when retraction of the landing gear is begun in accordance with §25.111 unless there is a more critical power operating condition existing later along the flight path but before the point at which the landing gear is fully retracted; and

(2) The weight equal to the weight existing when retraction of the landing gear is begun, determined under §25.111.

(b) *Takeoff; landing gear retracted.* In the takeoff configuration existing at the point of the flight path at which the landing gear is fully retracted, and in the configuration used in §25.111 but without ground effect:

(1) The steady gradient of climb may not be less than 2.4 percent for two-engine airplanes, 2.7 percent for three-engine airplanes, and 3.0 percent for four-engine airplanes, at V_2 with:

(i) The critical engine inoperative, the remaining engines at the takeoff power or thrust available at the time the landing gear is fully retracted, determined under §25.111, unless there is a more critical power operating condition existing later along the flight path but before the point where the airplane reaches a height of 400 feet above the takeoff surface; and

(ii) The weight equal to the weight existing when the airplane's landing gear is fully retracted, determined under §25.111.

(2) The requirements of paragraph (b)(1) of this section must be met:

(i) In non-icing conditions; and

(ii) In icing conditions with the most critical of the takeoff ice accretion(s) defined in Appendices C and O of this part, as applicable, in accordance with §25.21(g), if in the configuration used to show compliance with §25.121(b) with this takeoff ice accretion:

(A) The stall speed at maximum takeoff weight exceeds that in non-

icing conditions by more than the greater of 3 knots CAS or 3 percent of V_{SR} ; or

(B) The degradation of the gradient of climb determined in accordance with §25.121(b) is greater than one-half of the applicable actual-to-net takeoff flight path gradient reduction defined in §25.115(b).

(c) *Final takeoff.* In the en route configuration at the end of the takeoff path determined in accordance with §25.111:

(1) The steady gradient of climb may not be less than 1.2 percent for two-engine airplanes, 1.5 percent for three-engine airplanes, and 1.7 percent for four-engine airplanes, at V_{FTO} with—

(i) The critical engine inoperative and the remaining engines at the available maximum continuous power or thrust; and

(ii) The weight equal to the weight existing at the end of the takeoff path, determined under §25.111.

(2) The requirements of paragraph (c)(1) of this section must be met:

(i) In non-icing conditions; and

(ii) In icing conditions with the most critical of the final takeoff ice accretion(s) defined in Appendices C and O of this part, as applicable, in accordance with §25.21(g), if in the configuration used to show compliance with §25.121(b) with the takeoff ice accretion used to show compliance with §25.111(c)(5)(i):

(A) The stall speed at maximum takeoff weight exceeds that in non-icing conditions by more than the greater of 3 knots CAS or 3 percent of V_{SR} ; or

(B) The degradation of the gradient of climb determined in accordance with §25.121(b) is greater than one-half of the applicable actual-to-net takeoff flight path gradient reduction defined in §25.115(b).

(d) *Approach.* In a configuration corresponding to the normal all-engines-operating procedure in which V_{SR} for this configuration does not exceed 110 percent of the V_{SR} for the related all-engines-operating landing configuration:

(1) The steady gradient of climb may not be less than 2.1 percent for two-engine airplanes, 2.4 percent for three-engine airplanes, and 2.7 percent for four-engine airplanes, with—