

§ 23.2520 High-intensity Radiated Fields (HIRF) protection.

(a) Each electrical and electronic systems that perform a function, the failure of which would prevent the continued safe flight and landing of the airplane, must be designed and installed such that—

(1) The function at the airplane level is not adversely affected during and after the time the airplane is exposed to the HIRF environment; and

(2) The system recovers normal operation of that function in a timely manner after the airplane is exposed to the HIRF environment, unless the system's recovery conflicts with other operational or functional requirements of the system.

(b) For airplanes approved for IFR operations, each electrical and electronic system that performs a function, the failure of which would significantly reduce the capability of the airplane or the ability of the flightcrew to respond to an adverse operating condition, must be designed and installed such that the system recovers normal operation of that function in a timely manner after the airplane is exposed to the HIRF environment.

§ 23.2525 System power generation, storage, and distribution.

The power generation, storage, and distribution for any system must be designed and installed to—

(a) Supply the power required for operation of connected loads during all intended operating conditions;

(b) Ensure no single failure or malfunction of any one power supply, distribution system, or other utilization system will prevent the system from supplying the essential loads required for continued safe flight and landing; and

(c) Have enough capacity, if the primary source fails, to supply essential loads, including non-continuous essential loads for the time needed to complete the function required for continued safe flight and landing.

§ 23.2530 External and cockpit lighting.

(a) The applicant must design and install all lights to minimize any adverse

effects on the performance of flightcrew duties.

(b) Any position and anti-collision lights, if required by part 91 of this chapter, must have the intensities, flash rate, colors, fields of coverage, and other characteristics to provide sufficient time for another aircraft to avoid a collision.

(c) Any position lights, if required by part 91 of this chapter, must include a red light on the left side of the airplane, a green light on the right side of the airplane, spaced laterally as far apart as practicable, and a white light facing aft, located on an aft portion of the airplane or on the wing tips.

(d) Any taxi and landing lights must be designed and installed so they provide sufficient light for night operations.

(e) For seaplanes or amphibian airplanes, riding lights must provide a white light visible in clear atmospheric conditions.

§ 23.2535 Safety equipment.

Safety and survival equipment, required by the operating rules of this chapter, must be reliable, readily accessible, easily identifiable, and clearly marked to identify its method of operation.

§ 23.2540 Flight in icing conditions.

An applicant who requests certification for flight in icing conditions defined in part 1 of appendix C to part 25 of this chapter, or an applicant who requests certification for flight in these icing conditions and any additional atmospheric icing conditions, must show the following in the icing conditions for which certification is requested:

(a) The ice protection system provides for safe operation.

(b) The airplane design must provide protection from stalling when the autopilot is operating.

§ 23.2545 Pressurized systems elements.

Pressurized systems must withstand appropriate proof and burst pressures.

§ 23.2550 Equipment containing high-energy rotors.

Equipment containing high-energy rotors must be designed or installed to