§ 23.863 Flammable fluid fire protection.

(a) In each area where flammable fluids or vapors might escape by leakage of a fluid system, there must be means to minimize the probability of ignition of the fluids and vapors, and the resultant hazard if ignition does occur.

(b) Compliance with paragraph (a) of this section must be shown by analysis or tests, and the following factors must be considered:

1. Possible sources and paths of fluid leakage, and means of detecting leakage.
2. Flammability characteristics of fluids, including effects of any combustible or absorbing materials.
3. Possible ignition sources, including electrical faults, overheating of equipment, and malfunctioning of protective devices.
4. Means available for controlling or extinguishing a fire, such as stopping flow of fluids, shutting down equipment, fireproof containment, or use of extinguishing agents.
5. Ability of airplane components that are critical to safety of flight to withstand fire and heat.

(c) If action by the flight crew is required to prevent or counteract a fluid fire (e.g., equipment shutdown or actuation of a fire extinguisher), quick acting means must be provided to alert the crew.

(d) Each area where flammable fluids or vapors might escape by leakage of a fluid system must be identified and defined.


§ 23.865 Fire protection of flight controls, engine mounts, and other flight structure.

Flight controls, engine mounts, and other flight structure located in designated fire zones, or in adjacent areas that would be subjected to the effects of fire in the designated fire zones, must be constructed of fireproof material or be shielded so that they are capable of withstanding the effects of a fire. Engine vibration isolators must incorporate suitable features to ensure that the engine is retained if the non-fireproof portions of the isolators deteriorate from the effects of a fire.

[Amdt. 23–27, 45 FR 70387, Oct. 23, 1980]

§ 23.867 Electrical bonding and protection against lightning and static electricity.

(a) The airplane must be protected against catastrophic effects from lightning.

(b) For metallic components, compliance with paragraph (a) of this section may be shown by—

1. Bonding the components properly to the airframe; or
2. Designing the components so that a strike will not endanger the airplane.

(c) For nonmetallic components, compliance with paragraph (a) of this section may be shown by—

1. Designing the components to minimize the effect of a strike; or
2. Incorporating acceptable means of diverting the resulting electrical current so as not to endanger the airplane.

[Amdt. 23–7, 34 FR 13092, Aug. 13, 1969]

Subpart E—Powerplant

GENERAL

§ 23.901 Installation.

(a) For the purpose of this part, the airplane powerplant installation includes each component that—

1. Is necessary for propulsion; and
2. Affects the safety of the major propulsive units.

(b) Each powerplant installation must be constructed and arranged to—