safety and the safety of property resulting from each permitted flight. This hazard analysis must—
(1) Identify and describe hazards, including but not limited to each of those that result from—
(i) Component, subsystem, or system failures or faults;
(ii) Software errors;
(iii) Environmental conditions;
(iv) Human errors;
(v) Design inadequacies; or
(vi) Procedural deficiencies.
(2) Determine the likelihood of occurrence and consequence for each hazard before risk elimination or mitigation.
(3) Ensure that the likelihood and consequence of each hazard meet the following criteria through risk elimination and mitigation measures:
(i) The likelihood of any hazardous condition that may cause death or serious injury to the public must be extremely remote.
(ii) The likelihood of any hazardous condition that may cause major property damage to the public, major safety-critical system damage or reduced capability, a significant reduction in safety margins, or a significant increase in crew workload must be remote.
(4) Identify and describe the risk elimination and mitigation measures required to satisfy paragraph (a)(3) of this section. The measures must include one or more of the following:
(i) Designing for minimum risk,
(ii) Incorporating safety devices,
(iii) Providing warning devices, or
(iv) Implementing procedures and training.
(5) Demonstrate that the risk elimination and mitigation measures achieve the risk levels of paragraph (a)(3)(i) of this section through validation and verification. Verification includes:
(i) Test data,
(ii) Inspection results, or
(iii) Analysis.
(b) A permittee must carry out the risk elimination and mitigation measures derived from its hazard analysis.
(c) A permittee must ensure the continued accuracy and validity of its hazard analysis throughout the term of its permit.
§ 437.71 Flight rules.

(a) Before initiating rocket-powered flight, a permittee must confirm that all systems and operations necessary to ensure the safety of aircraft. The agreement must, at a minimum, demonstrate satisfaction of §§ 437.69(a) and 437.71(d).

(b) The collision avoidance analysis must establish each period during which a permittee may not initiate flight to ensure that a permitted vehicle and any jettisoned components do not pass closer than 200 kilometers to a manned or mannable orbital object. A distance of less than 200 kilometers may be used if the distance provides an equivalent level of safety, and if the distance accounts for all uncertainties in the analysis.

§ 437.67 Tracking a reusable suborbital rocket.

A permittee must—

(a) During permitted flight, measure in real time the position and velocity of its reusable suborbital rocket; and

(b) Provide position and velocity data to the FAA for post-flight use.

§ 437.69 Communications.

(a) A permittee must be in communication with Air Traffic Control during all phases of flight.

(b) A permittee must record communications affecting the safety of the flight.

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