

§§ 415.28–415.30 [Reserved]

**Subpart C—Safety Review and Approval for Launch From a Federal Launch Range**

**§ 415.31 General.**

(a) The FAA conducts a safety review to determine whether an applicant is capable of launching a launch vehicle and its payload without jeopardizing public health and safety and safety of property. The FAA issues a safety approval to a license applicant proposing to launch from a Federal launch range if the applicant satisfies the requirements of this subpart and has contracted with the Federal launch range for the provision of safety-related launch services and property, as long as an FAA launch site safety assessment shows that the range’s launch services and launch property satisfy part 417 of this chapter. The FAA evaluates on an individual basis all other safety-related launch services and property associated with an applicant’s proposal, in accordance with part 417 of this chapter. A safety approval is part of the licensing record on which the FAA’s licensing determination is based.

(b) The FAA advises an applicant, in writing, of any issue raised during a safety review that would impede issuance of a safety approval. The applicant may respond, in writing, or revise its license application.

[Amdt. 415-03, 64 FR 19616, Apr. 21, 1999, as amended by Amdt. 415-4, 71 FR 50531, Aug. 25, 2006]

**§ 415.33 Safety organization.**

(a) An applicant shall maintain a safety organization and document it by identifying lines of communication and approval authority for all launch safety decisions. Lines of communication, both within the applicant’s organization and between the applicant and any federal launch range providing launch services, shall be employed to ensure that personnel perform launch safety operations in accordance with range safety requirements and with plans and procedures required by this subpart. Approval authority shall be employed to ensure compliance with range safety

requirements and with plans and procedures required by this subpart.

(b) *Safety official.* An applicant shall identify by name, title, and qualifications, a qualified safety official authorized to examine all aspects of the applicant’s launch safety operations and to monitor independently personnel compliance with the applicant’s safety policies and procedures. The safety official shall report directly to the person responsible for an applicant’s licensed launches, who shall ensure that all of the safety official’s concerns are addressed prior to launch.

**§ 415.35 Acceptable flight risk.**

(a) *Flight risk through orbital insertion or impact.* Acceptable flight risk through orbital insertion for an orbital launch vehicle, and through impact for a suborbital launch vehicle, is measured in terms of the expected average number of casualties (c) to the collective members of the public exposed to debris hazards from any one launch. To obtain safety approval, an applicant must demonstrate that the risk level associated with debris from an applicant’s proposed launch meets the public risk criteria of § 417.107(b)(1) of this chapter for impacting inert and impacting explosive debris.

(b) *Hazard identification and risk assessment.* To demonstrate compliance with paragraph (a) of this section, an applicant must file an analysis that identifies hazards and assesses risks to public health and safety and safety of property associated with nominal and non-nominal flight of its proposed launch.

(c) *Design.* A launch vehicle must be designed to ensure that flight risks meet the criteria of paragraph (a) of this section. An applicant must identify and describe the following:

- (1) Launch vehicle structure, including physical dimensions and weight;
- (2) Hazardous and safety critical systems, including propulsion systems; and
- (3) Drawings and schematics for each system identified under paragraph (c)(2) of this section.

(d) *Operation.* A launch vehicle must be operated in a manner that ensures that flight risks meet the criteria of

paragraph (a) of this section. An applicant must identify all launch operations and procedures that must be performed to ensure acceptable flight risk.

[Doc. No. FAA-2000-7953, 71 FR 50531, Aug. 25, 2006]

**§ 415.37 Flight readiness and communications plan.**

(a) *Flight readiness requirements.* An applicant must designate an individual responsible for flight readiness. The applicant must file the following procedures for verifying readiness for safe flight:

(1) Launch readiness review procedures involving the applicant's flight safety personnel and Federal launch range personnel involved in the launch, as required by § 417.117(g) of this chapter.

(2) Procedures that ensure mission constraints, rules and abort procedures are listed and consolidated in a safety directive or notebook approved by licensee flight safety and Federal launch range personnel.

(3) Procedures that ensure currency and consistency of licensee and Federal launch range countdown checklists.

(4) Dress rehearsal procedures that—

(i) Ensure crew readiness under nominal and non-nominal flight conditions;

(ii) Contain criteria for determining whether to dispense with one or more dress rehearsals; and

(iii) Verify currency and consistency of licensee and Federal launch range countdown checklists.

(5) Procedures for ensuring the licensee's flight safety personnel adhere to the crew rest rules of § 417.113(f) of this chapter.

(b) *Communications plan requirements.* An applicant must file a communications plan that meets § 417.111(k) of this chapter, and that provides licensee and Federal launch range personnel communications procedures during countdown and flight.

(c) An applicant must file procedures that ensure that licensee and Federal launch range personnel receive a copy of the communications plan required by paragraph (b) of this section, and

that the Federal launch range concurs in the communications plan.

[Doc. No. FAA-2000-7953, 71 FR 50531, Aug. 25, 2006]

**§ 415.39 Safety at end of launch.**

To obtain safety approval, an applicant must demonstrate compliance with § 417.129 of this chapter, for any proposed launch of a launch vehicle with a stage or component that will reach Earth orbit.

[Doc. No. FAA-2000-7953, 71 FR 50531, Aug. 25, 2006]

**§ 415.41 Accident investigation plan.**

An applicant must file an accident investigation plan (AIP), that satisfies § 417.111(g) of this chapter, and contains the applicant's procedures for reporting and responding to launch accidents, launch incidents, or other mishaps, as defined by § 401.5 of this chapter.

[Doc. No. FAA-2000-7953, 71 FR 50531, Aug. 25, 2006]

**§ 415.43 Denial of safety approval.**

The FAA notifies an applicant, in writing, if it has denied safety approval for a license application. The notice states the reasons for the FAA's determination. The applicant may respond to the reasons for the determination and request reconsideration.

**§§ 415.44–415.50 [Reserved]**

**Subpart D—Payload Review and Determination**

**§ 415.51 General.**

The FAA reviews a payload proposed for launch to determine whether a licensee applicant or payload owner or operator has obtained all required licenses, authorization, and permits, unless the payload is exempt from review under § 415.53 of this subpart. If not otherwise exempt, the FAA reviews a payload proposed for launch to determine whether its launch would jeopardize public health and safety, safety of property, U.S. national security or foreign policy interests, or international obligations of the United States. A payload determination is part of the licensing record on which the FAA's licensing determination is based. The