

§§ 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 those launch services and the proposed use of launch property are within the federal launch range’s experience. The FAA evaluates on an individual basis all other safety-related launch services and property associated with an applicant’s proposal. 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.

§ 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 author-

ized 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 (E_c) to the collective members of the public exposed to debris hazards from any one launch. To obtain safety approval, an applicant shall demonstrate that the risk level associated with debris from an applicant’s proposed launch shall not exceed an expected average number of 0.00003 casualties per launch ($E_c \leq 30 \times 10^{-6}$).

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

(c) A launch vehicle shall be designed to ensure that flight risks meet the criteria set forth in this section. An applicant shall 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) A launch vehicle shall be operated in a manner that ensures that flight risks meet the criteria set forth in this section. An applicant shall identify all launch operations and procedures that must be performed to ensure acceptable flight risks.