(iv) A minimum 48-hour rest period after 5 consecutive days of 12-hour shifts.
(d) In addition to requirements of paragraph (c) of this section, any unproven RLV may only be operated so that during any portion of flight—
(1) The projected instantaneous impact point (IIP) of the vehicle does not have substantial dwell time over populated areas; or
(2) The expected average number of casualties to members of the public does not exceed \(30 \times 10^{-6}\) (\(E_c \leq 30 \times 10^{-6}\)) given a probability of vehicle failure equal to 1 (pf=1) at any time the IIP is over a populated area;
(e) Any RLV that enters Earth orbit may only be operated such that the vehicle operator is able to—
(1) Monitor and verify the status of safety-critical systems before enabling reentry flight to assure the vehicle can reenter safely to Earth; and
(2) Issue a command enabling reentry flight of the vehicle. Reentry flight cannot be initiated autonomously under nominal circumstances without prior enable.
§ 431.45 Mishap investigation plan and emergency response plan.
(a) Mishap investigation plan and emergency response plan. An applicant shall submit a mishap investigation plan (MIP) containing the applicant’s procedures for reporting and responding to launch and reentry accidents, launch and reentry incidents, or other mishaps, as defined in §401.5 of this chapter, that occur during the conduct of an RLV mission. An acceptable MIP satisfies the requirements of paragraphs (b)–(d) of this section. An applicant shall also submit an emergency response plan (ERP) that contains procedures for informing the affected public of a planned RLV mission. An acceptable ERP satisfies the requirements of paragraph (e) of this section. The MIP and ERP shall be signed by an individual authorized to sign and certify the application in accordance with §413.7(c) of this chapter, the person responsible for the conduct of all licensed RLV mission activities designated under §431.33(b) of this subpart, and the safety official designated under §431.33(c) of this subpart.
(b) Report requirements. A MIP shall provide for—
(1) Immediate notification to the FAA Washington Operations Center in case of a launch or reentry accident, launch or reentry incident, or a mishap that involves a fatality or serious injury (as defined in 49 CFR §30.2); and
(2) Notification within 24 hours to the Associate Administrator for Commercial Space Transportation in the event of a mishap that does not involve a fatality or serious injury, as defined in 49 CFR §30.2; and
(3) Submission of a written preliminary report to the FAA Associate Administrator for Commercial Space Transportation in the event of a launch accident or launch incident occurring in the conduct of an RLV mission, or reentry accident or reentry incident, occurring in the conduct of an RLV mission, within 5 days of the event. The report shall identify the event as either a launch or reentry accident or incident and must include the following information:
(i) Date and time of occurrence;
(ii) Description of the event and sequence of events leading to the accident or incident, to the extent known;
(iii) Intended and actual location of launch and reentry or other landing on Earth;
(iv) Identification of the vehicle;
(v) Identification of the payload, if applicable;
(vi) Number and general description of any fatalities and injuries;
(vii) Property damage, if any, and an estimate of its value;
(viii) Identification of hazardous materials, as defined in §401.5 of this chapter, involved in the event, whether on the vehicle, payload, or on the ground;
(ix) Action taken by any person to contain the consequences of the event;
(x) Weather conditions at the time of the event; and
(xi) Potential consequences for other vehicles or systems of similar type and proposed operations.
(c) Response plan. A MIP must contain procedures to—
(1) Ensure the consequences of a launch accident, launch incident, reentry accident, reentry incident, or other mishap occurring in the conduct
§ 431.47 Denial of safety approval.

The FAA notifies an applicant, in writing, if the FAA has denied safety approval for an RLV mission 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.

§§ 431.48–431.50 [Reserved]

Subpart D—Payload Reentry Review and Determination

§ 431.51 General.

(a) A payload reentry review is conducted to examine the policy and safety issues related to the proposed reentry of a payload, other than a U.S. Government payload or a payload whose reentry is subject to regulation by another Federal agency, to determine whether the FAA will approve reentry of the payload.

(b) A payload reentry review may be conducted as part of an RLV mission license application review or may be requested by a payload owner or operator in advance of or separate from an RLV mission license application.

(c) A payload reentry determination will be made part of the licensing record on which the FAA’s licensing determination is based.

§ 431.53 Classes of payloads.

(a) The FAA may approve the return of a type or class of payload (for example, communications or microgravity/scientific satellites).

(b) The RLV mission licensee that will return a payload approved for reentry under this section, is responsible for providing current information in accordance with § 431.57 regarding the payload proposed for reentry no later than 60 days before a scheduled RLV mission involving that payload.

§ 431.55 Payload reentry review.

(a) In conducting a payload reentry review to decide if the FAA should approve reentry of a payload, the FAA determines whether its reentry presents any issues that would adversely affect U.S. national security or foreign policy interests, would jeopardize public health and safety or the safety of property, or would not be consistent with international obligations of the United States.

(b) The FAA consults with the Department of Defense to determine whether reentry of a proposed payload presents any issues adversely affecting U.S. national security.