

§417.117

to ensure reliable operation. A launch operator must—

(1) Coordinate test plans and all associated test procedures with any launch site operator or local authorities, as required by local agreements, associated with the operation; and

(2) Make test results, test failure reports, information on any corrective actions implemented and the results of re-test available to the FAA upon request.

(b) *Flight safety system testing.* A launch operator must only use a flight safety system and all flight safety system components, including any on-board launch vehicle flight termination system, command control system, and support system that satisfy the test requirements of subpart D of this part.

(c) *Ground system testing.* A launch operator must only use a system or equipment used to support hazardous ground operations identified by the ground safety analysis required by §417.405 that satisfies the test requirements of paragraph (a) of this section.

§417.117 Reviews.

(a) *General.* A launch operator must—

(1) Review the status of operations, systems, equipment, and personnel required by part 417;

(2) Maintain and implement documented criteria for successful completion of each review;

(3) Track to completion and document any corrective actions or issues identified during a review; and

(4) Ensure that launch operator personnel who oversee a review attest to successful completion of the review's criteria in writing.

(b) A launch operator must conduct the following reviews:

(1) *Hazardous operations safety readiness reviews.* A launch operator must conduct a review before performing any hazardous operation with the potential to adversely affect public safety. The review must determine a launch operator's readiness to perform the operation and ensure that safety provisions are in place. The review must determine the readiness status of safety systems and equipment and verify that the personnel involved satisfy certification and training requirements.

(2) *Launch safety review.* For each launch, a launch operator must conduct a launch safety review no later than 15 days before the planned day of flight, or as agreed to by the FAA during the application process. This review must determine the readiness of ground and flight safety systems, safety equipment, and safety personnel to support a flight attempt. Successful completion of a launch safety review must ensure satisfaction of the following criteria:

(i) A launch operator must verify that all safety requirements have been or will be satisfied before flight. The launch operator must resolve all safety related action items.

(ii) A launch operator must assign and certify flight safety personnel as required by §417.105.

(iii) The flight safety rules and flight safety plan must incorporate a final flight safety analysis as required by subpart C of this part.

(iv) A launch operator must verify, at the time of the review, that the ground safety systems and personnel satisfy or will satisfy all requirements of the ground safety plan for support of flight.

(v) A launch operator must accomplish the safety related coordination with any launch site operator or local authorities as required by local agreements.

(vi) A launch operator must verify the filing of all safety related information for a specific launch with the FAA, as required by FAA regulations and any special terms of a license. A launch operator must verify that information filed with the FAA reflects the current status of safety-related systems and processes for each specific launch.

(3) *Launch readiness review for flight.* A launch operator must conduct a launch readiness review for flight as required by this section within 48 hours of flight. A person, identified as required by §417.103(b)(1), must review all preflight testing and launch processing conducted up to the time of the review; and review the status of systems and support personnel to determine readiness to proceed with launch processing and the launch countdown. A decision to proceed must be in writing and

signed by the person identified as required by §417.103(b)(1), and any launch site operator or Federal launch range. A launch operator, during the launch readiness review, must poll the FAA to verify that the FAA has identified no issues related to the launch operator's license. During a launch readiness review, the launch operator must account for the following information:

- (i) Readiness of launch vehicle and payload.
- (ii) Readiness of any flight safety system and personnel and the results of flight safety system testing.
- (iii) Readiness of safety-related launch property and services to be provided by a Federal launch range.
- (iv) Readiness of all other safety-related equipment and services.
- (v) Readiness of launch safety rules and launch constraints.
- (vi) Status of launch weather forecasts.
- (vii) Readiness of abort, hold and recycle procedures.
- (viii) Results of rehearsals conducted as required by §417.119.
- (ix) Unresolved safety issues as of the time of the launch readiness review and plans for their resolution.
- (x) Additional safety information that may be required to assess readiness for flight.
- (xi) To review launch failure initial response actions and investigation roles and responsibilities.

§417.119 Rehearsals.

(a) *General.* A launch operator must rehearse its launch crew and systems to identify corrective actions needed to ensure public safety. The launch operator must conduct all rehearsals as follows:

(1) A launch operator must assess any anomalies identified by a rehearsal, and must incorporate any changes to launch processing and flight needed to correct any anomaly that is material to public safety.

(2) A launch operator must inform the FAA of any public safety related anomalies and related changes in operations performed during launch processing or flight resulting from a rehearsal.

(3) For each launch, each person with a public safety critical role who will

participate in the launch processing or flight of a launch vehicle must participate in at least one related rehearsal that exercises his or her role during nominal and non-nominal conditions so that the launch vehicle will not harm the public.

(4) A launch operator must conduct the rehearsals identified in this section for each launch.

(5) At least one rehearsal must simulate normal and abnormal preflight and flight conditions to exercise the launch operator's launch plans.

(6) A launch operator may conduct rehearsals at the same time if joint rehearsals do not create hazardous conditions, such as changing a hardware configuration that affects public safety, during the rehearsal.

(b) *Countdown rehearsal.* A launch operator must conduct a rehearsal using the countdown plan, procedures, and checklist required by §417.111(l). A countdown rehearsal must familiarize launch personnel with all countdown activities, demonstrate that the planned sequence of events is correct, and demonstrate that there is adequate time allotted for each event. A launch operator must hold a countdown rehearsal after the assembly of the launch vehicle and any launch support systems into their final configuration for flight and before the launch readiness review required by §417.117.

(c) *Emergency response rehearsal.* A launch operator must conduct a rehearsal of the emergency response section of the accident investigation plan required by §417.111(h)(2). A launch operator must conduct an emergency response rehearsal for a first launch of a new vehicle, for any additional launch that involves a new safety hazard, or for any launch where more than a year has passed since the last rehearsal.

(d) *Communications rehearsal.* A launch operator must rehearse each part of the communications plan required by §417.111(k), either as part of another rehearsal or during a communications rehearsal.

§417.121 Safety critical preflight operations.

(a) *General.* A launch operator must perform safety critical preflight operations that protect the public from the