14 CFR Ch. III (1-1-08 Edition)

§417.1

- 417.13 Agreement with Federal launch range.
- 417.15 Records. 417.17 Launch reporting requirements and launch specific updates.
- 417.19 Registration of space objects.
- responsibility require-417.21 Financial ments.
- 417.23 Compliance monitoring. 417.25 Post launch report.
- 417.26–417.100 [Reserved]

Subpart B—Launch Safety Responsibilities

- 417.101 Scope.
- Safety organization. 417.103
- Launch personnel qualifications and 417.105 certification.
- 417.107 Flight safety.
- 417.109 Ground safety.
- 417.111 Launch plans.
- 417.113 Launch safety rules.
- Tests. 417.115
- 417.117 Reviews.
- 417.119 Rehearsals.
- Safety critical preflight operations. 417.121
- 417.123 Computing systems and software.
- Launch of an unguided suborbital launch vehicle.
- 417.127 Unique safety policies, requirements, and practices.
- 417.129 Safety at end of launch.
- 417.130-417.200 [Reserved]

Subpart C—Flight Safety Analysis

- 417.201 Scope and applicability.
- 417.203 Compliance
- 417.205 General.
- 417.207 Trajectory analysis.
- 417.209 Malfunction turn analysis.
- 417.211 Debris analysis.
- 417.213 Flight safety limits analysis.
- 417.215 Straight-up time analysis.
- 417.217 Overflight gate analysis.
- 417.218 Hold-and-resume gate analysis.
- 417.219 Data loss flight time and planned safe flight state analyses.
- 417.221 Time delay analysis.
- 417.223 Flight hazard area analysis.
- 417.224 Probability of failure analysis.
- 417.225 Debris risk analysis.
- 417.227 Toxic release hazard analysis.
- 417.229 Far-field overpressure blast effects analysis.
- 417.231 Collision avoidance analysis.
- 417.233 Analysis for an unguided suborbital launch vehicle flown with a wind weighting safety system.

Subpart D—Flight Safety System

- 417.301 General.
- 417.303 Command control system requirements.
- 417.305 Command control system testing.
- 417.307 Support systems.
- 417.309 Flight safety system analysis.

417.311 Flight safety system crew roles and qualifications.

Subpart E—Ground Safety

- 417.401 Scope.
- 417.402Compliance.
- 417.403 General.
- Ground safety analysis. 417,405
- 417.407 Hazard control implementation.
- 417.409 System hazard controls.
- 417.411 Safety clear zones for hazardous operations.
- 417.413 Hazard areas.
- 417.415 Post-launch and post-flight-attempt hazard controls.
- 417.417 Propellants and explosives.
- APPENDIX A TO PART 417—FLIGHT SAFETY Analysis Methodologies and Products FOR A LAUNCH VEHICLE FLOWN WITH A FLIGHT SAFETY SYSTEM
- APPENDIX B TO PART 417—FLIGHT HAZARD AREA ANALYSIS FOR AIRCRAFT AND SHIP PROTECTION
- APPENDIX C TO PART 417—FLIGHT SAFETY Analysis Methodologies and Products FOR AN UNGUIDED SUBORBITAL LAUNCH VEHICLE FLOWN WITH A WIND WEIGHTING SAFETY SYSTEM
- APPENDIX D TO PART 417—FLIGHT TERMI-NATION SYSTEMS, COMPONENTS, INSTALLA-TION, AND MONITORING
- APPENDIX E TO PART 417—FLIGHT TERMI-NATION SYSTEM TESTING AND ANALYSIS
- APPENDIX F TO PART 417 [RESERVED]
- APPENDIX G TO PART 417—NATURAL AND TRIG-GERED LIGHTNING FLIGHT COMMIT CRI-TERIA
- APPENDIX H TO PART 417 [RESERVED]
- APPENDIX I TO PART 417—METHODOLOGIES FOR TOXIC RELEASE HAZARD ANALYSIS AND OPERATIONAL PROCEDURES
- APPENDIX J TO PART 417—GROUND SAFETY Analysis Report
 - AUTHORITY: 49 U.S.C. 70101-70121.
- Source: Docket No. FAA-2000-7953, 71 FR 50537, Aug. 25, 2006, unless otherwise noted.

Subpart A—General and License **Terms and Conditions**

§417.1 General information.

- (a) Scope. This part sets forth-
- (1) The responsibilities of a launch operator conducting a licensed launch of an expendable launch vehicle; and
- (2) The requirements for maintaining a launch license obtained under part 415 of this chapter. Parts 413 and 415 of this chapter contain requirements for preparing a license application to conduct a launch, including information

reviewed by the FAA to conduct a policy, safety, payload, and environmental review., and a payload determination.

- (b) Applicability. (1) The administrative requirements for filing material with the FAA in subpart A of this part apply to all licensed launches from a Federal launch range or a non-Federal launch site, except where noted.
- (2) The safety requirements of subparts B through E of this part apply to all licensed launches of expendable launch vehicles. See paragraphs (d) and (e) of this section for exceptions to this provision.
- (c) "Meets intent" certification. For a licensed launch from a Federal launch range, a launch operator need not demonstrate to the FAA that an alternative means of satisfying a requirement of this part provides an equivalent level of safety for a launch if written evidence demonstrates that a Federal launch range has, by the effective date of this part, granted a "meets intent certification," including through "tailoring," that applies to the requirement and that launch. See paragraph (f) of this section for exceptions to this provision. Written evidence includes:
 - (1) Range flight plan approval,
- (2) Missile system pre-launch safety package.
- (3) Preliminary and final flight data packages,
 - (4) A tailored version of EWR 127-1,
- (5) Range email to the FAA stating that the MIC was approved, or
 - (6) Operation approval.
- (d) Waiver. For a licensed launch from a Federal launch range, a requirement of this part does not apply to a launch if written evidence demonstrates that a Federal launch range has, by the effective date of this part, granted a waiver that allows noncompliance with the requirement for that launch. See paragraph (f) of this section for exceptions to this provision. Written evidence includes:
 - (1) Range flight plan approval,
- (2) Missile system pre-launch safety package.
- (3) Preliminary and final flight data packages.
- (4) A tailored version of EWR 127-1,
- (5) Range email to the FAA stating that the waiver was approved, or

- (6) Operation approval.
- (e) Grandfathering. For a licensed launch from a Federal launch range, a requirement of this part does not apply to the launch if the Federal launch range's grandfathering criteria allow noncompliance with the requirement for that launch. See paragraph (f) of this section for exceptions to this provision
- (f) Exceptions to Federal launch range meets intent certifications, waivers, and grandfathering. Even if a licensed launch from a Federal launch range satisfies paragraph (c), (d), or (e) of this section for a requirement of this part, the requirement applies and a launch operator must satisfy the requirement, obtain FAA approval of any alternative, or obtain FAA approval for any further noncompliance if—
- (1) The launch operator modifies the launch vehicle's operation or safety characteristics;
- (2) The launch operator uses the launch vehicle, component, system, or subsystem in a new application:
- (3) The FAA or the launch operator determines that a previously unforeseen or newly discovered safety hazard exists that is a source of significant risk to public safety; or
- (4) The Federal launch range previously accepted a component, system, or subsystem, but did not then identify a noncompliance to a Federal launch range requirement.
- (g) Equivalent level of safety. The requirements of this part apply to a launch operator and the launch operator's launch unless the launch operator clearly and convincingly demonstrates that an alternative approach provides an equivalent level of safety.

§417.3 Definitions and acronyms.

For the purpose of this part,

Command control system means the portion of a flight safety system that includes all components needed to send a flight termination control signal to an onboard vehicle flight termination system. A command control system starts with any flight termination activation switch at a flight safety crew console and ends at each command-transmitting antenna. It includes all intermediate equipment, linkages, and software and any auxiliary transmitter