(3) Provide flow charts or diagrams that show all hardware data busses, hardware interfaces, software interfaces, data flow, and power systems, and all operations of each safety-critical computer system function;
(4) Provide all logic diagrams and software designs;
(5) List all operator user manuals and documentation by title and date;
(6) Describe the computing system and software system safety process as required by §417.123(a).
(7) Provide all results of computing system and software hazard analyses as required by §417.123(c).
(8) Provide all plans and results of computing systems and software validation and verification as required by §417.123(d).
(9) Provide all plans for software development as required by §417.123(e).

§ 415.125 Unique safety policies, requirements and practices.
An applicant’s safety review document must identify any public safety-related policy, requirement, or practice that is unique to the proposed launch, or series of launches, as required by §417.127(b) of this chapter. An applicant’s safety review document must describe how each unique safety policy, requirement, or practice ensures the safety of the public.

§ 415.127 Flight safety system design and operation data.
(a) General. This part applies to an applicant launching an orbital or guided sub-orbital expendable launch vehicle that uses a flight safety system to protect public safety as required by §417.107(a) of this chapter. An applicant’s safety review document must contain the flight safety system data identified by this section. The applicant must file all data required by this section no later than 18 months before bringing any launch vehicle to a proposed launch site.
(b) Flight safety system description. A safety review document must describe an applicant’s flight safety system and its operation. Part 417, subpart D of this chapter and appendices D, E, and F of part 417 of this chapter contain the flight safety system design and operational requirements.
not exceed its storage, operating, or service life before flight.

(8) **Flight termination system element location.** For a flight termination system, a description of where each subsystem element is located, where cables are routed, and identification of mounting attach points and access points.

(9) **Flight termination system electrical connectors and connections and wiring diagrams and schematics.** For a flight termination system, a description of all subsystem electrical connectors and connections, and any electrical isolation. The safety review document must also contain flight termination system wiring diagrams and schematics and identify the test points used for integrated testing and checkout.

(10) **Flight termination system batteries.** A description of each flight termination system battery and cell, the name of the battery or cell manufacturer, and any model numbers.

(11) **Controls and displays.** For a flight safety official console, a description of all controls, displays, and charts depicting how real time vehicle data and flight safety limits are displayed. The description must identify the scales used for displays and charts.

(e) **System analyses.** An applicant must perform the reliability and other system analyses for a flight termination system and command control system of §417.309 of this chapter. An applicant’s safety review document must contain the results of each analysis.

(f) **Environmental design.** An applicant must determine the flight termination system maximum predicted environment levels required by section D417.7 of appendix D of part 417 of this chapter, and the design environments and design margins of section D417.3 of appendix D of part 417 of this chapter. An applicant’s safety review document must contain the results of each analysis.

(h) **Flight termination system installation procedures.** An applicant’s safety review document must contain a list of the flight termination system installation procedures and a synopsis of the procedures that demonstrates how each of those procedures meet the requirements of section D417.15 of appendix D of part 417 of this chapter. The list must reference each procedure by title, any document number, and date.

(i) **Tracking validation procedures.** An applicant’s safety review document must contain the procedures identified by §417.121(h) of this chapter for validating the accuracy of the launch vehicle tracking data supplied to the flight safety crew.

§ 415.129 Flight safety system test data.

(a) **General.** An applicant’s safety review document must contain the flight safety system test data required by this section for the launch of an orbital