§ 420.66 Separation distance requirements for storage of hydrogen peroxide, hydrazine, and liquid hydrogen and any incompatible energetic liquids stored within an intraline distance.

(a) Separation of energetic liquids and determination of distances. A launch site operator must separate each explosive hazard facility from each other explosive hazard facility, each public area, and each public traffic route in accordance with the minimum separation distance determined under this section for each explosive hazard facility storing:

(1) Hydrogen peroxide in concentrations of greater than 91 percent;

(2) Hydrazine;

(3) Liquid hydrogen; or

(4) Any energetic liquid that is:

(i) Incompatible with any of the energetic liquids of paragraph (a)(1) through (3) of this section; and

(ii) Stored within an intraline distance of any of them.

(b) Quantity. For each explosive hazard facility, a launch site operator must determine the total quantity of all energetic liquids in paragraph (a)(1) through (4) of this section as follows:

(1) The quantity of energetic liquid in a tank, drum, cylinder, or other container is the net weight in pounds of the energetic liquid in the container. The determination of quantity must include any energetic liquid in associated piping to any point where positive means exist for:

(i) Interrupting the flow through the pipe, or

(ii) Interrupting a reaction in the pipe in the event of a mishap.

(2) A launch site operator must convert the quantity of each energetic liquid from gallons to pounds using the conversion factors provided in table E–6 of appendix E of this part and the following equation:

Pounds of energetic liquid = gallons \times \text{density of energetic liquid (pounds per gallon)}.

(3) Where two or more containers of compatible energetic liquids are stored in the same explosive hazard facility, the total quantity of energetic liquids is the total quantity of energetic liquids in all containers, unless:
§ 420.67 Separation distance requirements for handling incompatible energetic liquids that are co-located.

(a) Separation of energetic liquids and determination of distances. Where incompatible energetic liquids are co-located in a launch or reentry vehicle tank or other vessel, a launch site operator must separate each explosive hazard facility from each other explosive hazard facility, each public area, and each public traffic route in accordance with the minimum separation distance determined under this section for each explosive hazard facility.

(b) Quantity. For each explosive hazard facility, a launch site operator must determine the total quantity of all energetic liquids as follows:

(1) The quantity of energetic liquid in a launch or reentry vehicle tank is the net weight in pounds of the energetic liquid. The determination of quantity must include any energetic liquid in associated piping to any point where positive means exist for:

(i) Interrupting the flow through the pipe; or

(ii) Interrupting a reaction in the pipe in the event of a mishap.

(2) A launch site operator must convert each energetic liquid’s quantity from gallons to pounds using the conversion factors provided by table E–6 of appendix E of this part and the following equation:

\[ \text{Pounds of energetic liquid} = \text{gallons} \times \text{density of energetic liquid (pounds per gallon)}. \]

(c) Determination of separation distances for incompatible energetic liquids. A launch site operator must determine separation distances for incompatible energetic liquids as follows: