than 113.7 °F for no more than 15 minutes under emergency conditions.

(g) Dip time is as follows:
(1)

Origin	Shape of mango [1]	Weight (grams)	Dip time [2] (minutes)
Puerto Rico, U.S. Virgin Islands, or West Indies (excluding Aruba, Bonaire, Curacao, Margarita, Tortuga, or Trinidad and Tobago).	Flat, elongated varieties	Up to 400	65
		400–570	75
	Rounded varieties	Up to 500	75
		500–700	90
		701–900	110
Central America (north of and including Costa Rica) or Mexico.	Flat, elongated varieties	Up to 375	65
		375–570	75
	Rounded varieties	Up to 500	75
		500–700	90
		701–900	110
Panama, South America, or West Indies islands of Aruba, Bonaire, Curacao, Margarita, Tortuga, or Trinidad and Tobago.	Flat, elongated varieties	Up to 375	65
		375–570	75
	Rounded varieties	Up to 425	75
		425–650	90

[1] Flat, elongated varieties include Frances, Carrot, Zill, Ataulfo, Carabao, Irwin, and Manila, and rounded varieties include Tommy Atkins, Kent, Hayden, and Keitt.
[2] See paragraph (g)(2) of this section for required dip times if the fruit is hydrocooled within 30 minutes of removal from the hot water immersion tank.

(2) Dip times in paragraph (g)(1) of this section are valid if the fruit is not hydrocooled within 30 minutes of removal from the hot water immersion tank. If hydrocooling starts immediately after the hot water immersion treatment, then the original dip time must be extended for an additional 10 minutes. Hydrocooling is optional but may be done only at temperatures of 70 °F or above.

§ 305.22 Hot water immersion treatment schedules.

(a) *T102–d*. (1) Fruit must be grown and treated in Hawaii.

(2) Fruit must be submerged at least 4 inches below the water's surface in a hot water immersion treatment tank certified by APHIS.

(3) The fruit must be submerged for 20 minutes after the water temperature reaches at least 120.2 °F in all locations of the tank. The water must circulate continually and be kept at 120.2 °F or above for the duration of the treatment. Temperatures exceeding 121.1 °F can cause phytotoxic damage.

(4) Hydrocooling for 20 minutes at 75.2 °F is recommended to prevent injury to the fruit from the hot water immersion treatment.

(b) T102–d–1. (1) Fruit must be at ambient temperature before treatment begins.

(2) Fruit must be submerged at least 4 inches below the water's surface in a hot water immersion treatment tank certified by APHIS.

(3) The fruit must be submerged for 20 minutes after the water temperature reaches at least 120.2 °F in all locations of the tank. The water must circulate continually and be kept at 120.2 °F or above for the duration of the treatment. Temperatures exceeding 121.1 °F can cause phytotoxic damage.

(4) Hydrocooling for 20 minutes at 75.2 °F is recommended to prevent injury to the fruit from the hot water immersion treatment.

(c) *T102–e*. (1) Fruit must be submerged at least 4 inches below the water's surface in a hot water immersion treatment tank certified by APHIS.

(2) Water must circulate continually and be kept at 120.2 °F or above for 20 minutes. Treatment time begins when the water temperature reaches at least 120.2 °F in all locations of the tank. Temperatures exceeding 125.6 °F or treatment times significantly exceeding 20 minutes can cause phytotoxic damage.

(3) Cooling and waxing the fruit are both optional and are the sole responsibility of the processor.

§ 305.23 Steam sterilization treatment schedules.