HTST Pasteurizers and Their Public Health Controls

What are HTST Pasteurizers:

HTST (High Temperature Short Time) pasteurizers are a series of pipes, pumps, valves, plates and tubes that are designed and installed in a manner that allows for dairy products to be pasteurized continuously, rather than in batches. This type of system was developed to process large volumes of milk and recover some of the heat energy used in the pasteurization process. While used primarily for fluid milk and cream products, it may be used to pasteurize other dairy products including ice cream.

What are the Key Public Health Concerns with HTST Pasteurizers?

HTST pasteurizers must be designed, installed and operated to ensure that every particle of milk is held at a minimum pasteurization temperature and for a minimum time. To this end, engineers and installers must consider product flow rates, length of holding tubes, pressure differentials, failsafe action of valves, and behaviour of controls, not only under processing conditions, but during start-up, shutdown, forward flow, diverted flow, recycle flow, power loss and air pressure loss conditions. Sensors and controls must be installed, maintained, and verified to ensure the safe operation of the HTST pasteurizer.

What is the Operators Responsibility?

The operator must:
1. Advise the inspector when planning to install or modify an HTST pasteurizer.
2. Ensure that the public health controls are operating properly.
3. Record daily on the recording chart a comparison of the indicator thermometer and recording chart readings, the actual cut-in and cut-out temperatures, date, products run, operator name, and any unusual events that might have affected pasteurization.

Product	Minimum Pasteurization Temperature °C (°F)	Minimum Pasteurization Time (Seconds)
Fluid Milk	72 (161.6)	16
Cream	75 (167)	16
Ice Cream and Other High Fat/Solid Products	80 (176)	25

For further information contact the Dairy Plant Specialist at Food Protection Services

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