Ohio Administrative Code
Rule 901:3-3-06 Definitions for bread and other bakery products.
Effective: April 28, 2003

(A) Each retort shall be equipped with at least one mercury-in-glass thermometer.

(1) Thermometer divisions are to be easily readable to one degree Fahrenheit and the temperature range shall not exceed seventeen degrees Fahrenheit per inch of graduated scale.

(2) Thermometers shall be tested for accuracy against a known accurate standard thermometer upon installation and at least once a year thereafter to ensure their accuracy.

(3) A thermometer that has a divided mercury column or that cannot be adjusted to the standard shall be repaired or replaced before further use of the retort.

(4) Thermometers shall be installed where they can be accurately and easily read. Bulbs of indicating thermometers shall be installed either within the retort shell or in external wells attached to the retort.

(5) External wells or pipes shall be connected to the retort through at least a three-fourth inch diameter opening, and equipped with a one-sixteenth inch or larger bleeder opening so located as to provide a full flow of steam past the length of the thermometer bulb.

(6) The bleeder for external wells shall emit steam continuously during the entire processing period.

(7) The mercury thermometer shall be the reference instrument for indicating the processing temperature. The recorder chart shall not be used for this purpose.

(B) Temperature-recording device.

(1) Each retort shall have an accurate temperature-recording device. Graduations on the temperature-recording devices shall not exceed two degrees Fahrenheit within a range of ten degrees Fahrenheit of the processing temperature.
(2) Each chart shall have a working scale of not more than fifty-five degrees Fahrenheit per inch within a range of twenty degrees Fahrenheit of the processing temperature.

(3) The temperature chart shall be adjusted to agree as nearly as possible with, but to be in no event higher than, the known accurate mercury-in-glass thermometer during the process time.

(4) A means of preventing unauthorized changes in adjustment shall be provided.

(5) The temperature recording device may be combined with the steam controller and may be a recording-controlling instrument.

(6) The temperature recorder bulb shall be installed either within the retort shell or in a well attached to the shell.

(7) Each temperature recorder bulb well shall have a one-sixteenth inch or larger bleeder opening emitting steam continuously during the processing period.

(C) Steam controller.

Each retort shall be equipped with an automatic steam controller to maintain the retort temperature.

(D) Bleeders.

(1) Bleeders, except those for thermometer wells, shall be one-eighth inch or larger and shall be wide open during the entire process, including the come-up-time. Bleeders shall be located within approximately one foot of the outermost location of containers, at each end along the top of the retort. Additional bleeders shall be located not more than eight feet apart along the top. Bleeders may be installed at alternative locations provided that any alternative location of the bleeders shall be accompanied by evidence in the form of heat distribution data that they accomplish adequate removal of air and circulation of steam within the retort.

(2) In retorts having top steam inlet and bottom venting, a bleeder shall be installed in the bottom of
the retort to remove condensate.

(3) All bleeders shall be arranged in a way that enables the operator to observe that they are functioning properly.

(E) Venting and condensate removal.

(1) The air in each retort shall be removed before processing is started.

(2) Heat distribution data or documentary proof from the manufacturer or from a processing authority, demonstrating that adequate venting is achieved, shall be kept on file.

(3) At the time steam is turned on, the drain should be opened for a time sufficient to remove steam condensate from the retort and provision should be made for containing drainage of condensate during the retort operation.

(F) Retort speed timing.

(1) The rotational speed of the retort shall be specified in the schedules process. The speed shall be adjusted, as necessary, to ensure that the speed is as specified in the scheduled process.

(2) The rotational speed, as well as the process time, shall be recorded for each retort load processed.

(3) A means of preventing unauthorized speed changes on retorts shall be provided.

(G) Critical factors.

(1) Critical factors specified in the schedules process shall be measured and recorded on the processing record at intervals of sufficient frequency to ensure that the factors are within the limits specified in the scheduled process.

(2) The minimum headspace of containers in each retort load to be processed, if specified in the scheduled process, shall be measured and recorded at intervals of sufficient frequency to ensure that
the headspace is as specified in the scheduled process.

(3) When the product consistency is specified in the scheduled process, the consistency of the product shall be determined by objective measurements on the product taken from the filler before processing and recorded at intervals of sufficient frequency to ensure that the consistency is as specified in the scheduled process.

(4) Minimum closing machine vacuum in vacuum-packed products, maximum fill-in or drained weight, minimum net weight, and percent solids shall be as specified in the scheduled process for all products for which deviations from such specifications may affect the scheduled process.