Ohio Administrative Code
Rule 901:3-3-05 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 in 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. The bleeders for external wells shall emit steam continuously during the entire processing period.

(6) 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 temperature 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. 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.

(3) A means of preventing unauthorized changes in adjustment of the temperature recording device shall be provided.

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

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

(6) 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 of the retort.

(2) All bleeders shall be arranged so that the operator can observe that they are functioning properly.

(3) The condensate bleeder shall be checked with sufficient frequency to ensure adequate removal of condensate or shall be equipped with an automatic alarm system that would serve as a continuous
monitor of condensate-bleeder functioning.

(E) Venting and condensate removal.

(1) Vents shall be located in that portion of the retort opposite the steam inlet.

(2) Air shall be removed before processing is started.

(3) 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.

(4) At the time steam is turned on, steam condensate shall be removed from the retort, and provision shall be made for continuing drainage of condensate during the retort operation.

(F) Retort speed timing.

(1) The rotational speed of the retort shall be specified in the scheduled process.

(2) The speed shall be adjusted and recorded when the retort is started, at any time a speed change is made, and at intervals of sufficient frequency to ensure that the retort speed is maintained as specified in the scheduled process. A means of preventing unauthorized speed changes on retorts shall be provided. A lock, or a notice from management posted at or near the speed adjustment device that provides a warning that only authorized persons are permitted to make adjustments, is satisfactory means of preventing unauthorized changes.

(G) Emergency stops.

(1) If a retort jams or breaks down during processing operations, necessitating cooling the retort for repairs, the retort shall be operated in such a way that ensures that the product is commercially sterile, or the retort is to be cooled promptly and all containers either reprocessed, re-packed and reprocessed, or discarded.

(2) When operated as a still retort, all containers shall be given a full still retort process before the
retort is cooled. If, in such an emergency, a scheduled still process or another process established to ensure commercial sterility is to be used, it shall be made readily available to the retort operator.

(3) Any containers in the retort intake valve or in transfer valves between cooker shells of a continuous retort at the time of breakdown shall either be reprocessed, re-packed and reprocessed, or discarded.

(4) Both the time at which the reel stopped and the time the retort was used for a still retort process, if so used, shall be marked on the recording chart and entered on the other production records required in this Chapter.

(5) If the alternative procedure of prompt cooling is followed, the subsequent handling methods used for the containers in the retort at the time of stopping and cooling shall be entered on the production records.

(H) Temperature drop.

(1) If the temperature of the continuous retort drops below the temperature specified in the scheduled process while containers are in the retort, the retort reel shall be stopped promptly.

(2) When the temperature drops below the specified process temperature the reel shall be stopped. Before the reel is restarted, all containers in the retort shall be given a complete scheduled still retort process if the temperature drop was ten degrees Fahrenheit or more below the specified temperature, or alternatively, container entry to the retort shall be stopped and the reel restarted to empty the retort.

(3) The discharged containers shall be either reprocessed, re-packed and reprocessed, or discarded.

(4) Both the time at which the reel stopped and the time the retort was used for a still retort process, if so used, shall be marked on the recording chart and entered on the other production records required in this chapter.

(5) If the alternative procedure of emptying the retort is followed, the subsequent handing methods
used for the containers in the retort at the time of the temperature drop shall be entered on the production records.

(6) If the temperature drop was less than ten degrees Fahrenheit, a scheduled authorized emergency still process, approved by a person trained per rule 901:3-3-02 of the Administrative Code, may be used before restarting the retort reel. Alternatively, container entry to the retort shall be stopped and an authorized emergency agitating process may be used before container entry to the retort is restarted.

(7) When emergency procedures are used, no containers may enter the retort and the process and procedures used shall be noted on the production records.

(I) Critical factors.

(1) Critical factors specified in the scheduled 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, 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 when deviations from such specifications may affect the scheduled process.