

Recommended Procedures for Broken Seal Verification

Following a broken seal on the pasteurization system properly document the repair to that specific component in addition to the sampling for phosphatase residue. (Sampling for phosphatase residue applies to white milk only.) Examples of recommended procedures to document the pasteurization system repair are below. Include written documentation of this verification activity with the Pasteurizer Broken Seal Report.

Safety Thermal Limit Recorder (STLR)

- Verify the programming of electronic recorder.
- Check temperature against pasteurizer indicating thermometer or certified laboratory thermometer. Adjust as necessary, typically $\frac{1}{2}^{\circ}$ to 1° lower than the indicating thermometer.
- Verify Cut-in and Cut-out temperatures. Maintained above minimum legal pasteurization temperatures.

STLR RTD

- Ensure replacement probe is a fast response pasteurization probe, not a probe designed for a CIP application.
- Check temperature against pasteurizer indicating thermometer or certified laboratory thermometer. Adjust as necessary, typically $\frac{1}{2}^{\circ}$ to 1° lower than the indicating thermometer. May have to break seal on STLR to make the adjustment.

Digital Reference Thermometer (DRT)

- Check temperature against pasteurizer recording thermometer or certified laboratory thermometer. Adjust as necessary, typically $\frac{1}{2}^{\circ}$ to 1° higher than the recording thermometer. You must feel confident that proper indicator to recording thermometer checks have been done prior. Often during routine testing it is found that the recorder is reading significantly different than the indicator.

DRT RTD

- Check temperature against pasteurizer recording thermometer or certified laboratory thermometer. Adjust as necessary, typically $\frac{1}{2}^{\circ}$ to 1° higher than the recording thermometer. Will have to break seal on DRT to make adjustment.

Pressure Differential Switch

- Remove sensors from press, should both read zero. Adjust as necessary.

- Place sensors on tee and apply air pressure up to approximately 50 psi. Should track through scale with no difference greater than 1 psi. This test should also be done at normal operating pressures. Adjust as necessary.
- Remove raw sensor from tee, cap tee and apply air pressure to pasteurized sensor verify green light activates on DPC at appropriate setting. Booster must energize (green light), and de-energize (red light).

Pressure Sensors

- Remove sensors from press, should both read zero. Adjust as necessary, may need to break seal on pressure differential switch.
- Place sensors on tee and apply air pressure up to approximately 50 psi or normal operating pressure if >50psi. Should track through scale with no difference greater than 1 psi. Adjust as necessary, may need to break seal on pressure differential switch.

Flow Recorder/Alarm

- Verify the programming of electronic recorder, especially the flow alarm set point.
- Verify flow alarm diverts the system at flows higher than set point. Refer to previous Pasteurizer Test Report for set point, section 11.2b.
- Verify flow rates have not changed. Cheese vat fill times prior to the broken seal must be the same as after the broken seal.

Mag-Flow Meter or Transmitter

- Verify programming as applicable.
- Replacement meters must meet FDA review criteria.
- Verify flow rates have not changed. Cheese vat fill times prior to the broken seal must be the same as after the broken seal.

Programmable Logic Controllers - PLC

- Verify programming.
- Verify valve function. Test Manual Divert, Inspect, Product, and CIP mode functions.
- Verify Cut-in and Cut-out for temperature and flow, valves must divert as appropriate.
- Verify booster pump controls. Booster pump stops when timing pump is off, system diverts, or loss of pressure differential.

Frequency Drives for Timing, Booster or Stuffing pumps.

- Verify programming, specifically setting the pump to coast to stop.