Joint Committee on Food Equipment
Meeting Summary
NSF Headquarters, Ann Arbor Michigan
October 16 and 17, 2024

Microbial Testing Control Samples – Information Paper
Mike is the information paper writer and presented his paper.

> *NSF/ANSI Food Equipment Standards 2, 4, 6, 8, 12, 18, 20, 25, 59 include performance tests that involve a microbial challenge suspension to be applied to food contact surfaces at a minimum density. When a challenge suspension is circulated through a flow path in a piece of equipment there is typically some natural decrease in the density of the challenge bacteria as it flows through the equipment. In order to ensure all food contact surfaces are exposed to the minimum challenge density, NSF Labs collect positive control samples at the dispense point of the equipment. The control samples are used to establish the initial density value and need to be above required minimum challenge value. If the control samples fall short of the target value, the test needs to be repeated. The annexes of the standards have procedures for analyzing control samples but lack specifics of where they are taken and how they are applied. Perhaps some refinements could be made to the standards to more clearly communicate how the microbial challenge is distributed through the entire flow path and how it is quantified to ensure all users of the standards are testing consistently.*

The group discussed the procedures and standards for microbiological testing, specifically focusing on Clean-in-Place (CIP) systems and the challenges of ensuring adequate bacterial exposure throughout the system.

The paper and discussion highlights the importance of introducing a certain level of bacteria into the system to ensure proper challenge and validation of cleaning procedures. Control samples are taken at the system's outlet to confirm that the challenge level is maintained throughout the flow path, even without following any cleaning or sanitization procedures.

The group discussed potential improvements in standards by specifying methods for taking control samples and defining challenge levels more clearly. The author brought this forward as information paper to discuss the proposed improvements with the joint committee before moving forward with an issue paper.

There crux of the discussion was on the natural reduction of bacterial concentration as it passes through the system and the need to start with a stronger solution to ensure adequate challenge at the outlet.

The group agreed there was enough interest to submit an issue paper. Mike agreed to write that and S.Schaefer volunteered to support him.

Action Item:
Mike to write an issue paper with S.Schaefer's support.

M.Perez asked if there were any questions or comments; there were none.