

Mission Statement:

Hydra Rinse, LLC would like to build upon the success of our NSF Listed Hydra Rinse Cleaning/Sanitizing System for Soft Serve Ice Cream Machines (HRF1-0). The HRF1-0 System can be successfully used for In-Place/Clean-In-Place hybrid Cleaning and Sanitizing operations that offer up to 13 days without removing the Dispenser Freezer Door or any internal food contact components.

NOTE- The benefits provide for “Mitigation of Recontamination” during the actual performance of a cleaning and sanitizing operation. Its ease-of-clean functionality can reduce labor time and intensity by more than 50%, with >56% less water consumption. Automated, repeatable performance ensures efficacy results amongst varying end users for deterministic results.

Requested Changes to NSF International Standard/American National Standard for Food Equipment- 06 Dispensing Freezers:

6 Performance

 = Added verbiage

We would like to add the following to section 6 Performance:

6.1 Cleaning and sanitization procedures

6.1.1 Performance requirement

The cleaning and sanitization procedures recommended by the manufacturer or by an alternate attachable and/or integrated NSF certified cleaning and sanitizing system, shall effectively clean and sanitize the food contact surfaces of the dispensing freezer.

NOTE – This requirement applies to manual cleaning and sanitization procedures used in conjunction with mechanical sanitization and to in-place cleaning procedures recommended by the manufacturer or by an alternate attachable and/or integrated NSF certified cleaning and sanitizing system.

NEWLY ADDED PROPOSED SECTION 6.10:

6.10 Attachable and/or Integrated Automated Cleaning and Sanitizing System – Treatment efficacy

6.10.1 Performance requirement

The cleaning and sanitization procedures recommended by the automated cleaning and sanitizing system manufacturer shall effectively clean and sanitize the food contact surfaces of the dispensing freezer.

6.10.2 Test method

Before the Start-of-test, the Dispensing Freezer shall be cleaned and sanitized according to manufacturer's instructions.

Microbiological methods for stock culture preparation, and enumeration/analysis *Escherichia coli* (American Type Culture Collection⁸ #11229), shall be performed as specified in Annex A.

The Automated Cleaning and Sanitizing System must leverage an EPA Registered, NSF Listed Category Code (D2) Liquid Sanitizer and Cleaner Concentrate.

6.10.2.1 IN-PLACE/CLEAN-IN-PLACE PROTOCOL FOR DAYS 1-13:

6.10.2.2 The Dispensing Freezer reservoir(s) shall be filled with the intended "product mix" and the system shall be properly purged from entrapped air. The Dispensing Freezer shall be operated in accordance with the manufacturer's instructions for "AUTO mode". The Freezer Dispenser shall dispense approximately 5 oz. of product mix every 15 min. per dispensing head for an accumulative time period of 5 h; all dispensing shall take place within an eight hour period. Reservoir(s) shall be replenished with fresh product mix to operable levels as required. After 8 h has lapsed, the Dispensing Freezer shall be placed into "STANDBY mode" for a minimum of 5 h before performing an automated cleaning and sanitizing process.

6.10.2.3 Drain the product mix from all reservoir(s). The product reservoir(s) shall be refilled with a challenge suspension comprised of *E. coli* (ATCC⁸ #11229) and the intended "product mix" containing at minimum 1×10^6 cfu/mL (not to exceed 5×10^6 cfu/mL); the challenge suspension shall be prepared and maintained in accordance with the instructions in Annex A.

6.10.2.4 The Dispensing Freezer shall be operated so that all food contact surfaces are adequately exposed to the combined *E. coli* product mix suspension. 100 mL samples of the *E. coli* and product mix suspension shall be dispensed and collected from the dispense head(s).

The Dispensing Freezer shall then be immediately cleaned and sanitized using an **In-Place/ Clean-In-Place (Stage 1)** Automated Cleaning and Sanitizing System according to manufactures instructions. Refill product reservoir(s) with sterile buffered dilution water (SBDW). The Dispensing Freezer shall then be operated such that food contact surfaces are adequately exposed to the SBDW. After the SBDW is allowed to make sufficient contact time with all food surfaces, directly dispense and collect the SBDW from dispensing head(s). Five 100 mL samples shall be collected at intervals from the start of the dispensing until the required numbers of samples are obtained. In the event that adequate sample volumes cannot be realized, more SBDW shall be added accordingly to ensure the minimum 100 mL volume is obtained. Before continuing with more SBDW samples, continue to operate the Dispensing Freezer so that all food contact surfaces that were intended for the **(Stage 1)** Automated Cleaning and Sanitizing System are exposed to the newly added SBDW; sufficient SBDW shall then be dispensed to complete samples. The challenge organisms present in each sample shall be collected and enumerated

using the Standard Total Coliform Membrane Filter Procedure in accordance with APHA's *Standard Methods for the Examination of Water and Wastewater*⁵.

6.10.2.5 IN-PLACE PROTOCOL FOR DAY 14:

6.10.2.6 The Dispensing Freezer reservoir(s) shall be filled with the intended "product mix" and the system shall be properly purged from entrapped air. The Dispensing Freezer shall be operated in accordance with the manufacturer's instructions for "AUTO mode". The Freezer Dispenser shall dispense approximately 5 oz. of product mix every 15 min. per dispensing head for an accumulative time period of 5 h; all dispensing shall take place within an 8 h period. Reservoir(s) shall be replenished with fresh product mix to operable levels as required. After eight hours has lapsed, the Dispensing Freezer shall be placed into "STANDBY mode" for a minimum of 5 h before performing an automated cleaning and sanitizing process.

6.10.2.7 Drain the product mix from all reservoir(s). The product reservoir(s) shall be refilled with a challenge suspension comprised of E. coli (ATCC⁸ #11229) and the intended "product mix" containing at minimum 1×10^6 cfu/mL (not to exceed 5×10^6 cfu/mL); the challenge suspension shall be prepared and maintained in accordance with the instructions in Annex A.

6.10.2.8 The Dispensing Freezer shall be operated so that all food contact surfaces are adequately exposed to the combined E. coli product mix suspension. 100 mL samples of the E. coli and product mix suspension shall be dispensed and collected from the dispense head(s).

The Dispensing Freezer shall then be immediately cleaned and sanitized using an **In-Place (Stage 2)** Automated Cleaning and Sanitizing System according to manufactures instructions. Food zone surfaces shall be mechanically sanitized and visually inspected for residual deposits of food during the In-Place cleaning procedure; all visual food deposits must be removed. Refill the product reservoir(s) with sterile buffered dilution water (SBDW). The Dispensing Freezer shall then be operated such that food contact surfaces are adequately exposed to the SBDW. After the SBDW is allowed to make sufficient contact time with all food surfaces, directly dispense and collect the SBDW from dispensing head(s). Five 100 mL samples shall be collected at intervals from the start of the dispensing until the required numbers of samples are obtained. In the event that adequate sample volumes cannot be realized, more SBDW shall be added accordingly to ensure the minimum 100 mL volume is obtained. Before continuing with more SBDW samples, continue to operate the Dispensing Freezer so that all food contact surfaces that were intended for the **(Stage 2)** Automated Cleaning and Sanitizing System are exposed to the newly added SBDW; sufficient SBDW shall then be dispensed to complete samples. The challenge organisms present in each sample shall be collected and enumerated using the Standard Total Coliform Membrane Filter Procedure in accordance with APHA's *Standard Methods for the Examination of Water and Wastewater*⁵.

6.10.2.9 Acceptance criteria

For each sample, the total counts on the initial inoculum density (N_i) of at least 1,000,000 (1×10^6) and the total counts on the CFUs recovered (N_f) shall demonstrate a reduction equal to or greater than 99.9999% (6 log). The log reduction, R is calculated from the equation where:

$$R = \log_{10} (N_i/N_f)$$

AND

N_i = Initial inoculum density (CFU/mL)

N_f = The number of CFU recovered in each sample (CFU/mL).

If $N_f < 0$, the samples shall be considered acceptable.

7 Product literature

 = Added verbiage

The manufacturer shall provide a manual that describes the recommended procedures for the operation, maintenance, cleaning, and sanitization of the dispensing freezer. The manual shall specify that “standby” or “night” modes are not to be used in lieu of proper cleaning and sanitization procedures at the frequencies required by the federal, state, or local regulatory agency. The manual for heat treatment dispensing freezers shall also specify that at least one heat treatment cycle is to be run every 24 h. The manual for Automated Cleaning and Sanitizing Systems shall also specify that at least one (Stage 1) cleaning and sanitizing process is to be performed within 96 h. The manual for Automated Cleaning and Sanitizing Systems shall also specify that at least one (Stage 2) cleaning and sanitizing process is to be performed every 14 days.

FLUFF “SUPPORTING DOCUMENTATION”

NSF Test data provided for reference as follows:

- NSF Job Number: J-00214109 (Current NSF Listing)

NSF International
799 N. Dixboro Rd., Ann Arbor, MI 48105, USA
1-800-NSF-MARK | +1-734-769-8010 | www.nsf.org

TEST REPORT

Send To: C0218822
Mr. Al Mustardo
Hydra Rinse, LLC
7870 Lehigh Crossing Road
Suite 1
Victor, NY 14564

Facility: C0263840
Hydra Rinse, LLC
7870 Lehigh Crossing Road
Suite 1
Victor NY 14564
United States

Result	Pass	Report Date
Customer Name	Hydra Rinse, LLC	20-MAY-2016
Tested To	NSF/ANSI 06	
Description	Taylor 794-XX using Hydra Rinse model HRF1-0 Hydra Rinse Cleaning/Sanitizing System for Soft Serve Ice Cream Machines tested with Taylor 794	
Test Type	Qualification	
Job Number	J-00214109	
Project Number	W0275415	
Project Manager	Laura Hawkins	

- NSF Job Number: J-00217650 (Extended NSF In-place/Clean-in-place Special Test)

NSF International
799 N. Dixboro Rd., Ann Arbor, MI 48105, USA
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TEST REPORT

Send To: C0218822
Mr. Al Mustardo
Hydra Rinse, LLC
7870 Lehigh Crossing Road
Suite 1
Victor, NY 14564

Facility: C0263840
Hydra Rinse, LLC
7870 Lehigh Crossing Road
Suite 1
Victor NY 14564
United States

Result	Complete	Report Date
Customer Name	Hydra Rinse, LLC	01-JUL-2016
Tested To	NSF/ANSI 06	
Description	Gen II Soft Serve cleaning attachment IPC Attachment Used with Taylor 707 model	
Test Type	Special Testing	
Job Number	J-00217650	
Project Number	W0282296	
Project Manager	Laura Hawkins	

Hydra Rinse Operators Manuals included for understanding of the Automated Cleaning and Sanitizing System

