

1. FOOD SERVICE SUPERVISOR/MANAGER CERTIFICATION

B-323-2101

Topic 1.9 Facility, Equipment, Cleaning & Sanitizing

**LESSON PLAN**

DISCUSSION POINT

RELATED INSTRUCTOR ACTIVITY

1. FOOD SERVICE SUPERVISOR/MANAGER CERTIFICATION

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Class periods: 2

Lab periods: 0

Enabling Objectives:

- 1.39 **DESCRIBE** the 6 steps of the warewashing process.
- 1.40 **IDENTIFY** proper procedures to use when washing food service utensils and equipment by the manual warewashing process.
- 1.41 **EXPLAIN** proper procedures to use when washing food service utensils and equipment by automatic warewashing machine process.
- 1.42 **DESCRIBE** proper maintenance and cleaning procedures for automatic warewashing machines
- 1.43 **IDENTIFY** procedures required to clean and sanitize equipment that must be cleaned-in-place
- 1.44 **EXPLAIN** proper procedures to be employed in cleaning the general facility
- 1.45 **DESCRIBE** the proper methods to store cleaning supplies.

Instructor Preparation:

- A. Review Assigned Trainee Material
- B. Reference Publications:
  - 1. NAVMED P-5010, Chapter 1
  - 2. NAVSUPPUB 421 Food Service Sanitation
  - 3. NAVSUPPUB 520 EDF MAA Handbook
- C. Training Materials Required:
  - 1. Power Point Presentation

Trainee Preparation Material:

- A. Trainee Support Materials:
  - Student Workbook

DISCUSSION POINT  
1. Introduction

RELATED INSTRUCTOR ACTIVITY  
1. Establish contact.

Introduce yourself and give any background on yourself that might be of interest.

Establish readiness.

Motivating statements.

Tell the trainees how they will use the course material.

Tell the trainees why they need to know the lesson material.

Refer to Student Workbook and review objectives.

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#### 2. General Warewashing Procedures

##### a. Six Steps of Warewashing Process

###### (1) Sorting

- (a) Separate dishware and utensils by type for loading into dishwashing machine
- (b) Rack items to allow water spray to contact ALL surfaces and to allow water to properly drain
- (c) Place flatware in cylindrical containers, food contact surfaces up, no more than 15 pieces per container
- (d) During sorting/washing process, segregate items that are broken or damaged to discard

###### (2) Scrape/Preflush

- (a) Scrape/preflush prior to placing into machine
- (b) Remove food particles from the items
- (c) Use of steel wool is prohibited throughout the food service operation

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- (3) Wash - thoroughly wash to remove remaining food residue
  - (a) For manual warewashing, wash cleanest items (cups, glasses, flatware first) followed by the dirtiest/greasiest items (plates, pots & pans)
- (4) Rinse - to remove detergent solution and food particles loosened by washing
- (5) Sanitize
  - (a) Eliminates 99.999% pathogenic organisms
  - (b) Hot water
    - 1) Manual warewashing at 171°F, verify temperature with a thermometer
    - 2) For machine washing, temperature must be a minimum of 165°F for single tank stationary rack and 180°F for all other machines
    - 3) No machine should have water entering at more than 194°F

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- (c) Chemical sanitizers - use test strips to ensure proper concentration
- (6) Air Dry/Storage
  - (a) Allow items to thoroughly air dry prior to stacking or storing
  - (b) Dishware and utensils which are washed, rinsed and sanitized at proper temperatures will air dry quickly
  - (c) Do not towel dry
  - (d) Store all dishware and utensils in a clean dry area protected from potential contamination
  - (e) Do NOT store clean dishware or utensils in a space equipped with a salt water operated waste food pulper (SOMAT®)
- b. Three Sink Method
  - (1) Equipment
    - (a) Two or three compartment sink
    - (b) Booster heater for final rinse

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- (c) Thermometers/gauges
  - (d) Dip and drain baskets
  - (e) Approved brushes
  - (f) Approved hand warewashing compounds
  - (g) Arm length rubber gloves
  - (h) Rubber aprons
  - (i) Sanitizing agents
- (2) Wash
- (a) Water temperature of not less than 110°F
  - (b) Change wash water when food particles accumulate or when suds disappear
- (3) Rinse
- (a) Clear water rinse to remove detergent and food residue
  - (b) Change when suds or grease accumulate
- (4) Sanitize

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(a) Hot water - 171°F for 30 seconds

(b) Chemical

1 Use test papers to ensure proper strength of solution is available

2 Chlorine - Sodium Hypochlorite (bleach), NSN 6810-00-598-7316; 100ppm for 10 seconds

3 Iodine - WESCODYNE® (NSN 6840-00-782-2691); minimum water temperature 75°F, concentration between 12.5 PPM and 25 PPM, contact time of 30 seconds

4 Navy Food Service Disinfectant (NSN 6840-00-810-6396)

5 Quaternary ammonia - must ensure water hardness is no more than that specified by manufacturer's instructions; minimum water temperature of 75°F; concentration specified by manufacturer; contact time of 30 seconds

c. Two Sink Method

(1) Provisions must be made to achieve all

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steps of warewashing process

(2) Be sure to clean sinks prior to the final sanitizing rinse process

(3) Same as three sink method

d. Types of Automatic Warewashing Equipment and Operating Requirements

(1) Single Tank Stationary Rack

(a) Wardroom, CPO Mess

(b) Wash - follow manufacturer's specifications; 165°F; cycle usually 1½ - 2 minutes

(c) No rinse cycle - uses dwell cycle; defined as a time period to allow detergent water to drain from items

(d) Sanitizing rinse - 165°F - 194°F; 15-25 psi

(2) Single Tank Conveyor

(a) Wash - 160°F

(b) No rinse cycle - uses dwell cycle

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- (c) Sanitizing rinse - range of 165°-194°F for specified time (see manufacturer's instructions)
- (3) Single Tank Chemical Sanitizing
  - (a) Wash - 120°F
  - (b) No rinse cycle - uses dwell cycle
  - (c) Sanitizing rinse - temperature of 120°F with 100 PPM chlorine; replace chlorine solution as required
- (4) Multiple Tank Conveyor
  - (a) Main scullery
  - (b) May use individual utensil racks or place utensils directly on conveyor
  - (c) May have prewash section
  - (d) Wash - follow manufacturer's specifications; 150°F at prescribed conveyor speed (factory set)
  - (e) Power rinse cycle - 160°F-180°F

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- (f) Sanitizing rinse - 180°F-194°F;  
15-25 psi
- (g) May have drying section
- e. Maintenance and Cleaning Procedures for  
Automatic Warewashing Equipment
  - (1) Cleaning Procedures
    - (a) Clean before use, throughout the day  
at a frequency necessary to prevent  
recontamination of equipment &  
utensils and to ensure that the  
equipment performs its intended  
function, and at least every 24 hours
    - (b) Disassemble upper and lower wash and  
rinse spray arms to clean
      - 1 Remove end caps
      - 2 Use approved brush to scrub inside  
surface of spray arms
    - (c) Remove and clean scrap trays, drain  
strainers, and divider curtains
    - (d) Clean interior and exterior of machine

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(e) Descale as required

(2) Maintenance Procedures

(a) Ensure water spray patterns are complete

(b) Verify accuracy of thermometers monthly

2. Clean-in-Place Procedures

a. General Considerations

(1) Safety

(a) Electrical power is secured - TAGGED OUT

(b) Be extremely careful with sharp edges and projections

(2) Cleaning Procedures

(a) Disassemble to permit access to all required parts

(b) Scrape or rough clean to remove food particle accumulation

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- (c) Clean using swabbing/brushing motion with detergent solution
- (d) Rinse with potable water
- (e) Manually swab with approved chemical sanitizing solution

#### b. Specific Equipment

- (1) Refrigerated Spaces (walk-in/reach-in units)
  - (a) Daily - clean up spills (clean as you go)
  - (b) Biweekly - Scrub interior surfaces and door gasket with detergent solution and bristle brush; sanitize
  - (c) Walk-in - Scrub surfaces with baking soda or borax and hot water (half teaspoon of baking soda to each quart of water) exercise caution to ensure scratches do not occur on the finish

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- (2) Steam-jacketed Kettles
  - (a) Steam-jacketed kettles must be scrubbed inside and outside after each use with a scrub brush and detergent solution; rinse; sanitize with hot water or chemical sanitizing agent
  - (b) Clean strainer; remove and clean draw-off valve, clean draw-off tube with a brush
- (3) Meat Slicer
  - (a) Cleaning Periodicity
    - 1 Each time there is a change in processing between types of raw animal products such as beef, fish, lamb, pork, and poultry
    - 2 Each time there is a change from raw or ready-to-eat foods
    - 3 After any substantial interruption of operations in which contamination may have occurred

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- 4 Throughout the day at intervals necessitated by food temperature, type of food, and food particle accumulation
- 5 At end of working day
- (b) Cleaning Procedures
  - 1 Set index at zero; secure power
  - 2 Clean blade with a clean detergent/sanitizer soaked cloth wrapped around cook's fork or other extension utensil
- (4) Soft-Serve Ice Cream Freezer
  - (a) After each use drain freezer compartment and feed hopper of excess product
  - (b) Clean hopper, internal food contact areas and exterior surfaces using the specified cleaner in accordance with the manufacturer's instructions
  - (c) Prior to use, clean and sanitize using specified sanitizing compound according to the manufacturer's instructions

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- (4) Utensils and Food-contact Surfaces of Equipment Used in Non-continuous Food Operations
  - (a) After each use
  - (b) After a substantial interruption of operations in which contamination may have occurred

### 3. General Facility Cleaning

#### a. General

- (1) Use dustless methods - vacuuming, wet cleaning, treated mops, sweep using dust arresting compounds
- (2) Use service sink to dispose of mop water
- (3) All sponges and cleaning clothes must be washed and sanitized after each meal period

#### b. Dining Tables

- (1) During the meal - "two pan method"
  - (a) one pan - mild detergent and water solution

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- (b) second pan - rinse solution
- (2) After each meal
  - (a) Wash tables using the "two pan method"
  - (b) Apply an approved sanitizing solution with a sponge or cloth
- c. Refuse Containers
  - (1) Empty as necessary and at the end of each day
  - (2) Thoroughly clean inside and outside as needed
- d. Exhaust Ventilation Systems
  - (1) Grease Interceptor Hoods (GAYLORD®)- operate daily
  - (2) Grease Hoods/Filters - Clean at least weekly
  - (3) Exhaust Ventilation Ducting - clean interior of exhaust ducting IAW PMS requirement (semiannually)

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e. Decks

- (1) Clean decks as necessary to remove food debris and residue
- (2) Clean up spills as they occur
- (3) Wet cleaning method - provide warning to reduce potential of slipping

f. Proper Storage of Cleaning Supplies

- (1) Brooms, swabs, vacuum cleaners, soaps, detergents, and disinfectants should be stored in an orderly manner
- (2) Store all cleaning compounds in original containers or with proper identification labeling
- (3) Store in a ventilated space separate from food, equipment, utensils or linens to avoid potential contamination
- (4) Space should have adequate ventilation to prevent malodors and allow gear to dry

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- 4. Summary
  - a. General Warewashing Procedures
  - b. Manual Warewashing Procedures
  - c. Automatic Machine Warewashing Procedures
  - d. Clean-in-Place Procedures
    - (1) Refrigerated Spaces
    - (2) Steam-jacketed Kettles
    - (3) Meal Slicers
    - (4) Soft Serve Ice Cream Freezer
  - e. General Facility Cleaning
    - (1) Dining Tables
    - (2) Refuse Containers
    - (3) Exhaust Ventilation Systems
    - (4) Decks
  - f. Cleaning Gear Lockers

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