



ASQ Merrimack Valley Section Meeting

October 3, 2013

PRESENTED BY

**PAM BLANCHETTE
(UL - FIELD SERVICES REGIONAL MANAGER)**

General Sanitation for Commercial Food Equipment – Select Concepts



COMMERCIAL FOOD EQUIPMENT



Where used:

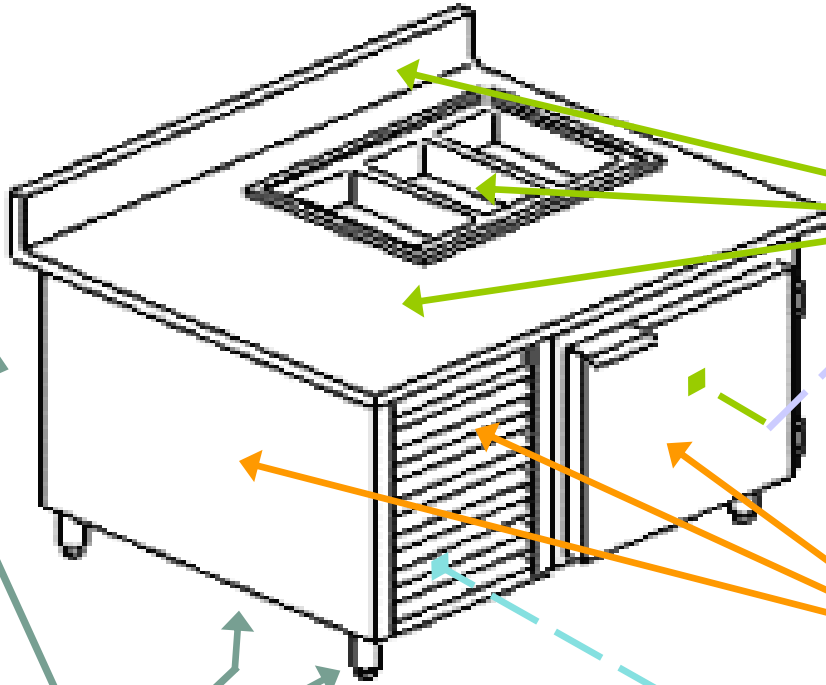
- Restaurants
- Grocery stores
- Hospitals
- Schools
- Prisons
- Managed care facilities
- Banquet/catering facilities

DESIGN / CONSTRUCTION



- Promote cleanability, preclude accumulation of soil and prevent vermin harborage
- Handle food in a sanitary manner

ZONES



FOOD ZONE: Equipment surfaces intended to be in direct contact with food, and equipment surfaces that food or condensate may contact and then drain, drip, or splash back into food or onto surfaces that are intended to be in direct contact with food. Also includes this refrigerated food storage compartment (design, construction, materials - intended for unpackaged foods).

SPLASH ZONE: Equipment surfaces, other than those in a food zone, that are subject to splash, spillage, or other food soiling during operation of the equipment.

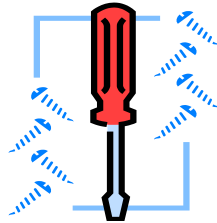
NONFOOD ZONE: Exposed equipment surfaces other than those in a food or splash zone. Often encompasses sides, rear, and undersides of units.

UNEXPOSED NONFOOD ZONE: Enclosed areas that are unexposed under normal use conditions. Included in this definition are areas that are inaccessible or are designed to be accessed only for maintenance and/or service through means including but not limited to covers, panels, or doors that are removable, readily removable, sliding, or hinged.

TERMINOLOGY

READILY REMOVABLE: Capable of being detached and taken away from the parent unit without the use of tools.

REMOVABLE: Capable of being detached and taken away from the parent unit with the use of simple tools.



READILY ACCESSIBLE: Manufactured to be exposed for cleaning and inspection without the use of tools.

ACCESSIBLE: Manufactured to be exposed for cleaning and inspection with the use of simple tools.

SIMPLE TOOLS: Hand tools commonly available to food establishment maintenance and cleaning personnel, such as screwdrivers, pliers, open-ended wrenches, and Allen wrenches.

SPECIAL TOOL: A specifically designed tool that is used to install or remove a particular security fastener.

TERMINOLOGY

EASILY CLEANABLE: Manufactured such that food and other soiling material may be removed by manual cleaning methods.

CLEANABLE: Able to be freed of residues of food and other soiling materials.

CLEANING: Physical removal of residues of food and other soiling materials.

IN-PLACE CLEANING: A method of cleaning and sanitizing equipment surfaces in their assembled form by mechanically circulating or passing a detergent solution, water rinse or sanitizing solution onto or over the surface.

SELF-DRAINING: Combination of design, construction, installation, and surface finish so as to prevent the retention of liquid except to normal surface wetting.

Finish

Accessible



Smooth

Coved corners



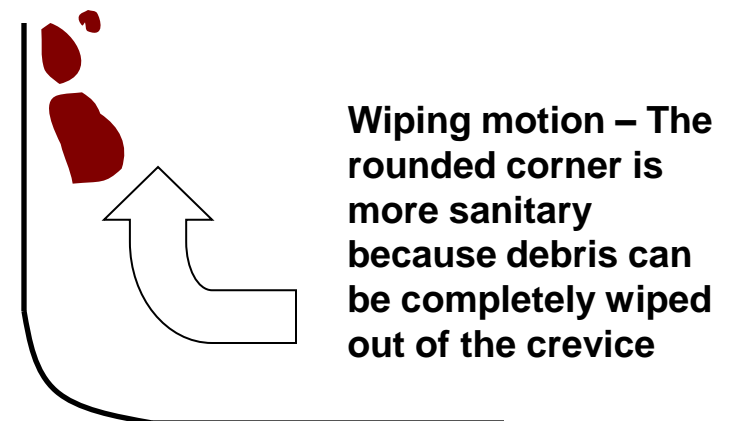
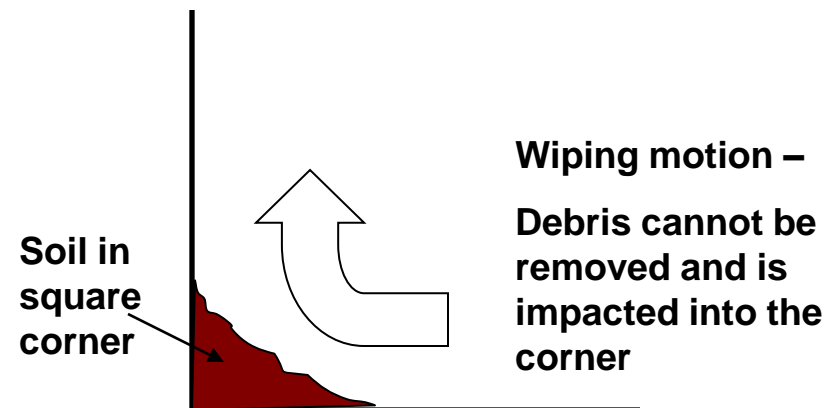


SURFACES BY THE ZONES

- Food Zone – Readily accessible and easily cleanable or designed for in-place cleaning (IPC)
- Splash Zone – Accessible and easily cleanable
- Nonfood Zone – Accessible and cleanable
- Unexposed Nonfood Zone – Accessible or closed

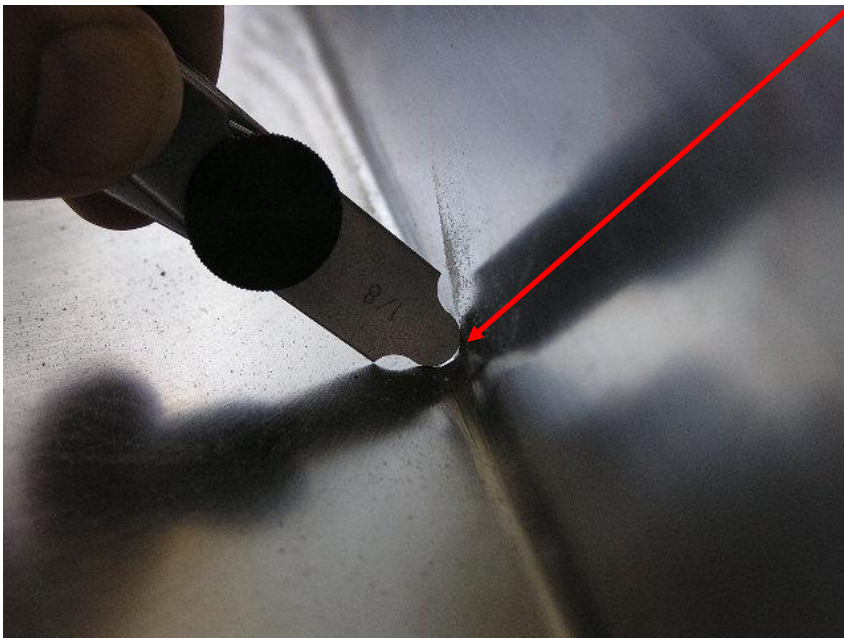
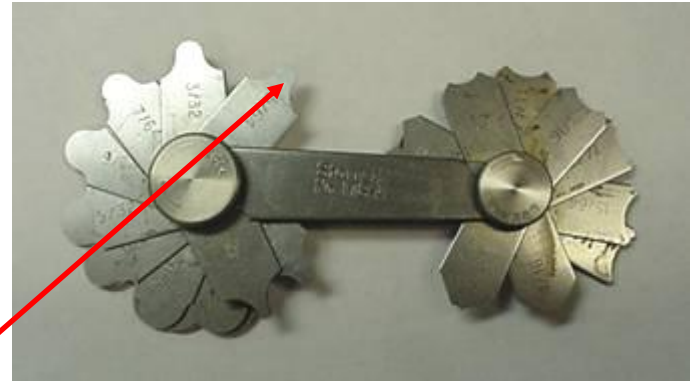
INTERNAL ANGLES AND CORNERS, FOOD ZONE

- To facilitate cleaning, internal angles of food zones must be constructed with smooth and continuous radii
 - When removing soil with a rag, a rounded corner facilitates more effective removal of food residue and debris



INTERNAL ANGLES AND CORNERS, FOOD ZONE

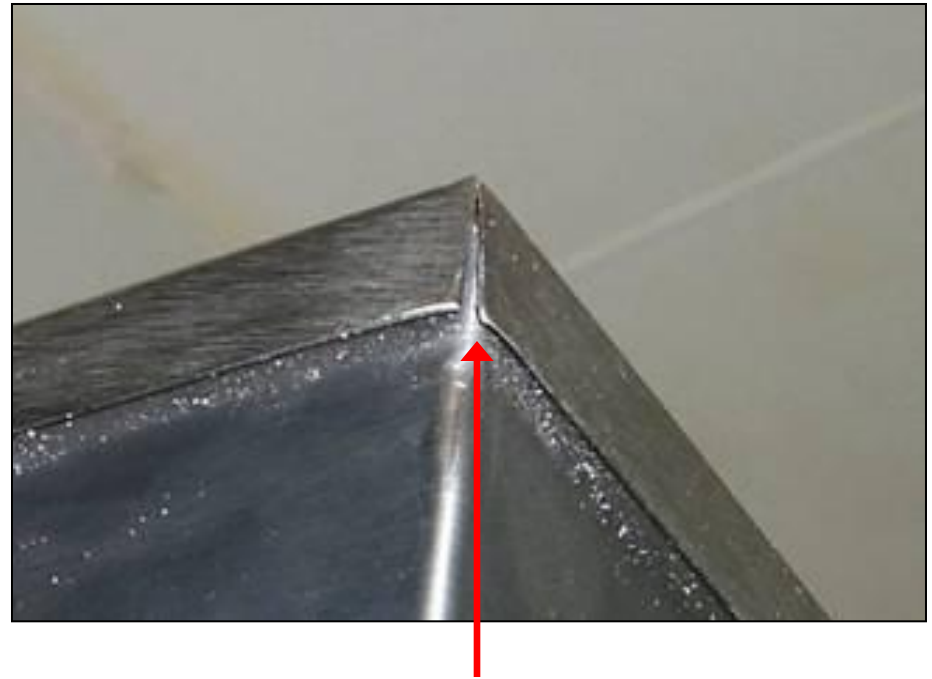
**Use your
radius gauge!**



For verification of internal radius, insert rounded edge into angle. If the angle is square or does not have enough radius, there will be a space between the angle and the rounded point. Note that the angle pictured at left does not comply – it does not have the minimum radius!

EXTERNAL ANGLES AND CORNERS

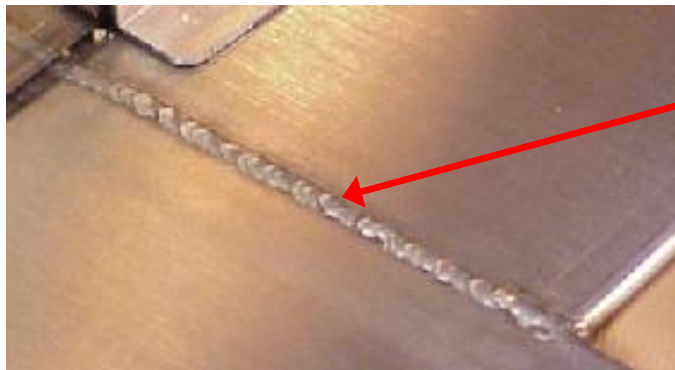
Must be sealed and smooth



Unfinished corners, such as the top of the unit, create uncleanable seams. The edges may also be sharp, either upon initial inspection or over time, and if the area is sharp, staff will avoid cleaning this area to prevent personal injury. This seam must be sealed and smooth.

JOINTS AND SEAMS

- **Permanent** joints and seams in a food zone or splash zone: Sealed and smooth
- **Permanent** joints and seams in a nonfood zone: Closed
 - Welded nonfood zone joints and seams shall be deburred



Same splash zone seam.

Originally unacceptable before grinding and polishing...

...and acceptable after



JOINTS AND SEAMS

A properly sealed permanent seam





EVALUATING A CLOSED SEAM

Using a feeler gauge



Answer: Use of a calibrated feeler gauge (also known as a thickness gauge). If a 1/32 in thick feeler penetrates a seam that can be no greater than 1/32 in, then the seam is wider than allowed and is not acceptable.

INSULATION

- Food zone and splash zone insulated space must be sealed
 - “Sealed” because insulation is absorbent, difficult to clean, and can provide nesting for vermin or a suitable environment for the growth of micro-organisms
- Nonfood zone insulated space must be closed
- Installed so as to prevent it from separating or settling



Exposed insulation – must be sealed or closed, depending on the zone



DOOR TRACKS AND GUIDES



GOOD

Track terminates at least 1/2 in. from framing or clean out holes

Track depth less than width of channel top



The object is for food and debris to be swept to a hole or slot and be removed from the track.

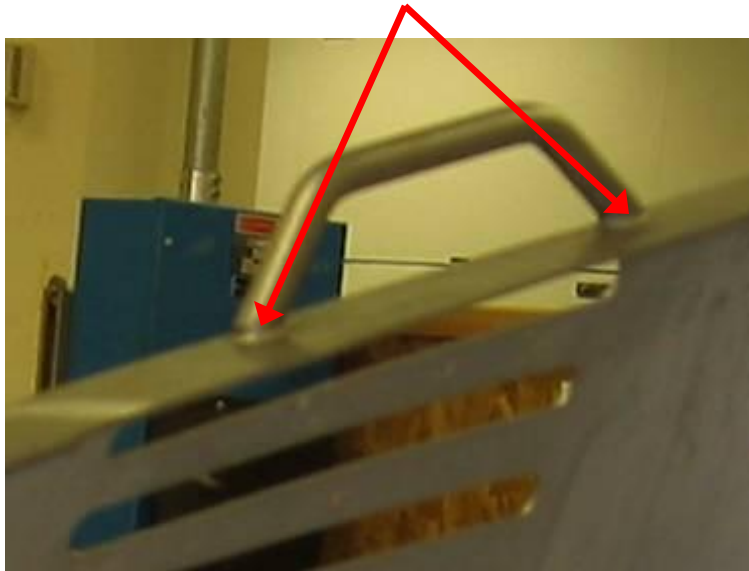
BAD

Open space at end of track. Does debris fall out beneath the product? If not, the construction would not be considered cleanable.

SWEATING THE LITTLE STUFF

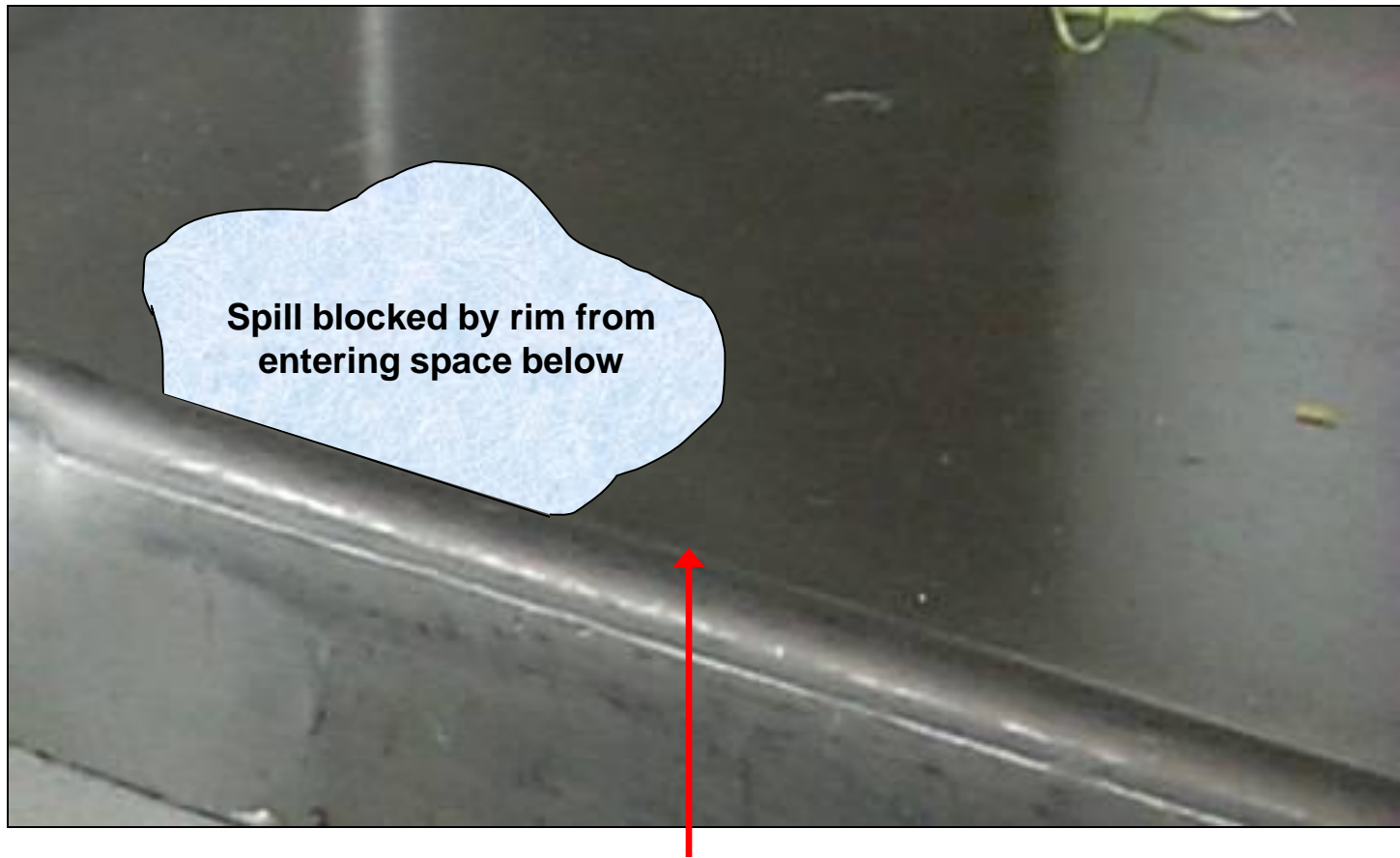
Look at the attachment of these two door handles. Which conform?

Permanently attached. Welded and ground smooth. **CONFORMS**



Yuk! The handle appears to be removable but is not easily cleanable. There are exposed threads and an open seam leading to uncleanable hollow space. **DOES NOT CONFORM!**

TOP OPENINGS TO FOOD ZONES



3/16 inch raised rim protects food products stored below from spill contamination

LOUVERS

If subject to overhead splashes, spills, or drips:

- Drip deflecting design; or
- Readily removable and space immediately behind easily cleanable; or
- Removable with simple tools if necessary due to safety requirements



WORKMANSHIP



Round to flat
space



THE GOAL: TO ENSURE SAFE FOOD

