1. PURPOSE

A box stall or a pen allows a cow/heifer to move freely in a comfortable, enclosed area. It can be used to house a sick or injured animal, a cow/heifer that is recovering from surgery or injury and to house cattle pre- and post-partum. Maintaining a clean box stall is essential in keeping the animal clean and thereby reducing the spread of environmental pathogens to the teat canals, injuries, and surgical wounds or to a newborn calf.

2. RESPONSIBILITY

2.1 All permanent, casual and student staff
2.2 Dairy Barn Manager

3. MATERIALS

3.1 Wheelbarrow
3.2 Pitch fork
3.3 Shovel
3.4 Broom
3.5 Wood shavings
3.6 Straw
3.7 Limestone
3.8 Virkon®
3.9 Gloves
3.10 Mask

4. GENERAL

4.1 Box stalls are thoroughly cleaned daily (preferably in the morning).
4.2 Cleanliness is maintained frequently throughout the day by removing soiled bedding.
4.3 Evening (usually after milking): Manure is cleaned out and existing bedding is spread evenly. More bedding is added, if necessary.
4.4 Assess the cleanliness and of the animal to determine if a tie stall has an adequate level of cleanliness. Appropriate corrective action must be taken when the level of cleanliness is inadequate. Refer to SOP DC-304: Dairy Cow Cleanliness Assessment.
4.5 Box stalls must be disinfected between animals.
4.6 Box stalls which have been exposed to cows with contagious infections (e.g. Staph aureus, toxic mastitis, diarrhea, Klebsiella, etc.) MUST follow specific disinfection procedures (section 5.3).

5. PROCEDURE

5.1 BOX STALL DAILY CLEANING:

5.1.1 Tie the cow/heifer to the side of the pen if necessary, using a halter to prevent escape.
5.1.2 Remove all the manure and urine using a pitchfork and shovel. Move the bedding around because soiled bedding and manure might be hiding underneath clean bedding.
5.1.3 Place all soiled bedding into the wheelbarrow.
5.1.4 Dump the soiled bedding in the solid manure conveyor at the opposite end of the barn.
5.1.5 Start the conveyor
5.1.6 Empty the wheelbarrow
5.1.7 Stop the conveyor before going back to the box stall.
5.1.8 When all soiled bedding has been removed, spread out any remaining clean wood shavings. Add more wood shaving to provide a thickness of at least 1 inch.
5.1.9 Spread out any remaining straw over the wood shavings.
5.1.10 Add more straw until the thickness of the straw is equivalent to at least 5 inches.

5.2 BOX STALL DISINFECTION:
Box stalls must be disinfected between animals,
5.2.1 Remove all soiled and wet bedding.
5.2.2 Wash the back wall by scrubbing with dish soap and hot water.
5.2.3 Any clean wood shavings and straw can be placed in a clean corner of the box stall, to be reused.
5.2.4 Scrape any bedding stuck to the mat.
5.2.5 Sweep all remaining bedding out.
5.2.6 Allow to air dry, if time allows.
5.2.7 Don Mask and Gloves
5.2.8 Sprinkle limestone (Wear gloves and a mask)
5.2.9 Spread 1 ½ to 2 bags of wood shavings, evenly over the floor.
5.2.10 The bedding that has been kept from the previous cow can be spread evenly over the floor.
5.2.11 Add more straw until the thickness of the straw is equivalent to 5 inches.

5.3 CONTAMINATED BOX STALL DISINFECTION:

<table>
<thead>
<tr>
<th>IMPORTANT</th>
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<tr>
<td><strong>Box stalls which have been exposed to cows with contagious infections (e.g. Staph aureus, toxic mastitis, diarrhea, Klebsiella, etc.) MUST be disinfected with Virkon® and limestone.</strong></td>
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5.3.1 Remove all remaining bedding and dump in solid manure conveyor.
5.3.2 Wash the back wall by scrubbing with dish soap and hot water.
5.3.3 Scrape any bedding stuck to the mat.
5.3.4 Sweep all remaining bedding out.
5.3.5 Allow to air dry
5.3.6 Don a mask and gloves
5.3.7 Disinfect the mat with Virkon®
5.3.8 Allow to air dry
5.3.9 Sprinkle limestone
5.3.10 Leave the stall empty for several days (if possible)
5.3.11 Spread 1 ½ to 2 bags of wood shavings, evenly over the floor.
5.3.12 Add more straw until the thickness of the straw is equivalent to 5 inches