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| **Protocol:** | Glass Breakage | **Date in Effect:** |  |
| **Package:** | Bottling line | **Written by:** |  |

**Risk Assessment**

Our process includes two areas where broken glass presents a risk to our consumers. The first is in the case of glass inclusion in a sealed bottle. The second is in the case of a broken bottle in a package.

**Equipment:**

Bottling line

**Risk Reduction**

* All bottles will be rinsed with a strong spray of potable water sufficient to remove foreign debris prior to being filled.
* Bottles will be conveyed under cover or within an enclosure from the rinser to the filler.

**Procedure:**

**General Line Breakage**

1. Stop the line and identify where pieces of glass may be.
2. Remove and collect all pieces of broken glass. Do not use compressed air or other method that would spread fragments.
3. Discard Containers around the breakage point (see note below) and within spray pattern of broken glass. Do not re-use bottles.
4. Remove any other containers that may hinder the view of pieces of broken glass.
5. Collect and remove all smaller pieces and fragments of broken glass (look on areas such as ledges, belts and underside of filling valves and centering bells.)
6. If necessary, wash down the area with a low pressure hose from the potable or sterile water source.
7. Record the details (mold #, bottle time, quantity broken/discarded etc.) for the affected bottle in the glass breakage log.

**Depal Breakage**

1. Remove and inspect all bottles in rinser and discard as necessary to remove risk of glass fragments in the bottle. Inspect all bottles on the same tier/layer as the broken bottle as well as the tier/layer below the breakage. Record amount broken/discarded in breakage log.

**Rinser Breakage**

1. Remove and inspect bottles around breakage, discard as necessary to remove risk of glass fragments in the bottles.

**Filler Breakage**

1. Dispense product from the filling head to flush out any glass that may be inside(1 full revolution minimum).
2. Run automated rinser on filler for two full rotations to clean outside of filling valves.
3. Do not restart line until the cause has been investigated and repairs made if necessary.
4. Bottles removed from filler should not be re-used.
5. If filler has an automated breakage detection and rinse function, test and document regularly to ensure effectiveness.

**Capper Breakage**

1. Discard the broken bottle and its contents.
2. Wash and rinse out capper heads with water to remove any glass fragments or pieces.
3. Inspect the next bottle capped by the offending capper head by emptying it’s contents out through a filter paper. Continue checking that head for glass until no glass is present in the filter paper.

**Notes:**

The number of bottles around the breakage point that must be removed depends on the severity of the breakage; the range would extend to the furthest fragment found. For example, a small chip may only require the bottles immediately following the damaged bottle, complete shattering may require that any containers that were open and out to the farthest piece of glass found be removed and destroyed. Breakage events that exceeds 3 bottles in 10,000 should trigger additional controls be placed on the line followed by communications with the supplier to identify the root cause and solution.