

# Stormwater Management Best Practices for Breweries

## ***Sustainable Brewing and Pollution Prevention***

Breweries that follow certain stormwater management best practices may apply for No Exposure Certification. No Exposure best management practices protect all industrial materials, final products and activities from exposure to exposure of rain, snow, snowmelt, ice melt and runoff.

This certification would exclude a facility from needing permit coverage under Maine's Industrial Stormwater Program, Chapter 521: Application for Waste Discharge Licenses.

## ***Identifying Stormwater Management Best Practices at Your Facility***

### **Storage Management**

Look for the following opportunities to preserve brewing solids (trub, grains, other) and by-products by implementing optimum storage practices while also preventing stormwater pollution:

- Store spent wort with trub for animal feed (agriculture distribution)
- Cover and securely enclose all material and waste storage areas to prevent leakage to the pavement or storm drains.
- Keep spent wort separate from surplus yeast – fermenting will reduce the value of both waste streams and as a food commodity (spent wort may also be stored and reused in the brewing process if the quality does not degrade)
  - Minimize dust and debris from vent, stack and grain silo filling areas
  - Cover outside trash receptacles



*Above: Waste Trub contained in green covered bin for composting. Waste Grain in gray box covered tote for livestock feed.*



*Right: Spent grain silo*

- Install a dust collection vacuum system if dust cannot be controlled
- Install a spent grain silo to minimize grain releases during transfers to farmers' trucks
- Properly contain and cover spoiled product and broken product containers





*Above: Floor drain in brew house with mesh basket to capture waste grain*



*Above: Trub container filled halfway to avoid breakthrough*

## Transfer Discharge Management

Reduce solids and biological materials from entering the liquid waste streams internally. Design or adjust pretreatment technologies to treat maximum production amounts.

- Transfer material inside when possible
- Fill trub containers halfway to avoid breakage and spillage
- Improve practices for transferring spent solids into vehicles for transportation & disposal to eliminate spills, leaks, material loss etc.
- Sweep before wet cleaning of all floors to recover solids
- Install fine mesh baskets in the floor drains to collect and prevent grains from entering the drainage system

## Regulated Treatment and Disposal Alternatives

Re-using materials for brewery use, livestock feed or other manufacturing is preferred to other disposal options.

If the following treatment options are considered **please contact the Department** as a **permit** and or technical review may be necessary:

**Anaerobic digestion**

**Composting**

**Land spreading**

**For technical assistance please contact:**

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