New Hampshire sustainable

craft beverage program

 **environmental Plan**

An environmental plan is an important document that helps ensure your business is running at optimal efficiency and minimizing its environmental impact. The plan includes best management practices (BMPs) and standard operating procedures for nearly every aspect of a brewery’s operation. Keeping an accurate and up-to-date environmental plan is one way a brewery can identify potential concerns before they become larger issues. The plan can also be used throughout the year during onboarding of new staff as well as a point of reference for all staff.

This living document also includes a schedule of inspections and maintenance log where staff conducting those activities can initial and date when these occurred.

Placing a clipboard with a schedule of inspections and maintenance activities near respective equipment is optimal.

**Table of Contents**

[**Light Use Policy and Signs** 2](#_Toc110004390)

[**Plumbing Inspection** 4](#_Toc110004391)

[**HVAC Inspection** 5](#_Toc110004392)

[**Process Line and Equipment Inspection** 6](#_Toc110004393)

[**Monthly Inspection Log** 7](#_Toc110004394)

[**Maintenance and Repair Log** 8](#_Toc110004395)

[**Standard Operating Procedures** 9](#_Toc110004396)

[**Heat Recovery Procedures** 10](#_Toc110004397)

[**Optimal Temperature/PSI Settings** 11](#_Toc110004398)

[**Water Reuse Procedures** 12](#_Toc110004399)

[**Wastewater Inspection** 13](#_Toc110004400)

[**Recycling Plan** 14](#_Toc110004401)

[**Spent Grain Diversion** 15](#_Toc110004402)

[**Solid Waste Audit** 16](#_Toc110004403)

This template was developed by the [Iowa Waste Reduction Center](https://iwrc.uni.edu/green-brewery/certification) (IWRC) and was adapted with IWRC’s permission by the New Hampshire Department of Environmental Services’ Pollution Prevention Program to help craft beverage producers achieve optimal operational efficiency. Please contact nhppp@des.nh.gov or call (603) 271-6460 with any questions.

# **Light Use Policy and Signs**

It is our policy that lights will be turned off when not in use. Print one of the signs below and post throughout your facility to remind employees to turn off lights when not in use.

**PLEASE**

**TURN LIGHTS OFF**

**WHEN NOT IN USE**

**LIGHTS OFF?**

**THINK GREEN**

**TURN OFF LIGHTS**


# **Plumbing Inspection**

Visually inspect all plumbing in the brewhouse and taproom at least quarterly. This includes staff-only areas, kitchens, bar sinks and restrooms. Look for leaks in water and drainpipes. If any are identified, repair immediately. Also check for properly functioning and unclogged faucet aerators and properly flushing toilets.

|  |
| --- |
| **Plumbing Inspections** |
| **Area Inspected** | **Q1** | **Q2** | **Q3** | **Q4** |
| Date | Initials | Date | Initials | Date | Initials | Date | Initials |
| Brewhouse Sinks and Drains |  |  |  |  |  |  |  |  |
| Taproom Sinks and Drains |  |  |  |  |  |  |  |  |
| Restroom Sinks and Drains |  |  |  |  |  |  |  |  |
| Toilets and Urinals |  |  |  |  |  |  |  |  |
| Other:  |  |  |  |  |  |  |  |  |
| Other:  |  |  |  |  |  |  |  |  |
| Other:  |  |  |  |  |  |  |  |  |

|  |
| --- |
| **Repairs/Maintenance Performed** |
| **Area Repaired/Maintenance Description** | **Date Completed** |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |

# **HVAC Inspection**

Visually inspect all HVAC ductwork for optimal efficiency (no blockages, leaks, etc.) at least quarterly. Inspect and clean all vents and air intakes for dust and debris. Inspect air filter and replace accordingly.

|  |
| --- |
| **HVAC Quarterly Inspections** |
| **Area Inspected** | **Q1** | **Q2** | **Q3** | **Q4** |
| Date | Initials | Date | Initials | Date | Initials | Date | Initials |
| Ductwork |  |  |  |  |  |  |  |  |
| Vents and Intakes |  |  |  |  |  |  |  |  |
| Air Filter |  |  |  |  |  |  |  |  |
| Other:  |  |  |  |  |  |  |  |  |
| Other:  |  |  |  |  |  |  |  |  |

|  |
| --- |
| **Repairs/Maintenance Log** |
| **Area Repaired/Maintenance Description** | **Date Completed** |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |

# **Process Line and Equipment Inspection**

Visually inspect all process lines for leaks at least quarterly. If any leaks are present, identify and repair them. Inspect all equipment to ensure settings, controls and parts are in good working order.

|  |
| --- |
| **Process Line and Equipment Inspections** |
| **Area Inspected** | **Q1** | **Q2** | **Q3** | **Q4** |
| Date | Initials | Date | Initials | Date | Initials | Date | Initials |
| Beer Lines |  |  |  |  |  |  |  |  |
| Water Lines |  |  |  |  |  |  |  |  |
| Glycol Lines |  |  |  |  |  |  |  |  |
| CO2 Lines |  |  |  |  |  |  |  |  |
| Canning Line |  |  |  |  |  |  |  |  |
| Brewing Equipment |  |  |  |  |  |  |  |  |
| Compressed Air |  |  |  |  |  |  |  |  |
| Forklift |  |  |  |  |  |  |  |  |
| Cooler/Refrigerator Door Seals |  |  |  |  |  |  |  |  |
| Fire/Safety Equipment |  |  |  |  |  |  |  |  |
| Other:  |  |  |  |  |  |  |  |  |
| Other:  |  |  |  |  |  |  |  |  |

|  |
| --- |
| **Maintenance & Repair Performed** |
| **Area Repaired/Maintenance Description** | **Date Completed** |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |

# **Monthly Inspection Log**

Visually inspect all plumbing in the brewhouse and taproom at least quarterly. This includes staff-only areas, kitchens, bar sinks, and restrooms. Look for leaks in water and drainpipes. If any are identified, repair immediately. Also check for properly functioning and unclogged faucet aerators and properly flushing toilets.

Visually inspect all HVAC ductwork for optimal efficiency (no blockages, leaks, etc.). Inspect and clean all vents and air intakes for dust and debris. Inspect air filter and replace accordingly. Visually inspect all process lines for leaks. If any leaks are present, identify and repair them. Inspect all equipment to ensure settings, controls and parts are in good working order. Note any problems identified and repair them. Use the following chart to document these monthly inspections.

|  |
| --- |
| **Monthly Inspection Log** |
| **Inspection** **Location** | **JAN\***DateInitial | **FEB** DateInitial | **MAR** DateInitial | **APR** DateInitial | **MAY\***DateInitial | **JUN** DateInitial | **JUL**DateInitial | **AUG** DateInitial | **SEP\*** DateInitial | **OCT** DateInitial | **NOV** DateInitial | **DEC** DateInitial |
| **Plumbing** |
| Taproom Sinks & Drains |  |  |  |  |  |  |  |  |  |  |  |  |
| Restroom Sinks &Drains  |  |  |  |  |  |  |  |  |  |  |  |  |
| Toilets & Urinals |  |  |  |  |  |  |  |  |  |  |  |  |
| **HVAC** |
| HVAC Ductwork |  |  |  |  |  |  |  |  |  |  |  |  |
| HVAC Vents & Intake |  |  |  |  |  |  |  |  |  |  |  |  |
| Air Filter(s) |  |  |  |  |  |  |  |  |  |  |  |  |
| **Process Line and Equipment** |
| Beer Lines |  |  |  |  |  |  |  |  |  |  |  |  |
| Water Lines |  |  |  |  |  |  |  |  |  |  |  |  |
| Glycol Lines |  |  |  |  |  |  |  |  |  |  |  |  |
| CO2 Lines |  |  |  |  |  |  |  |  |  |  |  |  |
| Canning Line |  |  |  |  |  |  |  |  |  |  |  |  |
| Brewing Equipment |  |  |  |  |  |  |  |  |  |  |  |  |
| Compressed Air  |  |  |  |  |  |  |  |  |  |  |  |  |
| Forklift |  |  |  |  |  |  |  |  |  |  |  |  |
| Cooler/Frig. Door Seals |  |  |  |  |  |  |  |  |  |  |  |  |

# **Maintenance and Repair Log**

|  |
| --- |
| **Maintenance and Repair Log** |
| **Area Maintenance/Repair Description** | **Date Completed**  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |

# **Standard Operating Procedures**

Having documented standard operating procedures for brewhouse equipment and processes can help ensure that the brewery and equipment is operating efficiently and effectively.

They also help with the onboarding of new employees.

Please attach any brewhouse equipment and/or Standard Operating Procedures (SOPs) or Best Management Practices (BMPs) here. Examples: brewing process, waste management, inventory control, cleaning, etc.

# **Heat Recovery Procedures**

Document all heat recovery procedures implemented in the brewhouse (i.e., fans moving heat generated from the brewing process to other parts of the facility in the winter months, reversible ceiling fans to circulate warm/cool air, insulated/jacketed tanks, etc.).

|  |
| --- |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |

# **Optimal Temperature/PSI Settings**

Record optimal operating temperatures for HVAC systems, boilers and water heaters. Record minimum and maximum PSI for compressed air. Check thermostats and compressed air settings monthly to ensure they are at the proper settings.

**Optimal Temperature/PSI Settings:**

|  |  |  |
| --- | --- | --- |
| Furnace | Day: | Night: |
| Air Conditioner | Day: | Night: |
| Boiler |  |  |
| Hot Water Heater |  |  |
| Compressed Air | Min PSI: | Max PSI:  |

|  |
| --- |
| **Optimal Thermostat Inspections** |
| Month | HVAC | Boiler | Water Heater |
| Date | Initials | Date | Initials | Date | Initials |
| January |  |  |  |  |  |  |
| February |  |  |  |  |  |  |
| March |  |  |  |  |  |  |
| April |  |  |  |  |  |  |
| May |  |  |  |  |  |  |
| June |  |  |  |  |  |  |
| July |  |  |  |  |  |  |
| August |  |  |  |  |  |  |
| September |  |  |  |  |  |  |
| October |  |  |  |  |  |  |
| November |  |  |  |  |  |  |
| December |  |  |  |  |  |  |

# **Water Reuse Procedures**

Document all water reuse procedures implemented in the brewhouse (i.e., reusing hot water from heat exchange in brewing/cleaning, closed loop heat exchange water, weather-based irrigation, rain barrels, etc.).

|  |
| --- |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |

# **Wastewater Inspection**

Inspect any mash tun floor screens, floor drain grates and sediment/grease traps monthly to ensure no solids are being discharged into wastewater stream. Clean out accordingly.

|  |
| --- |
| **Wastewater Inspections** |
| **Month** | **Mash Tuns** | **Floor Drain Grates** | **Sediment / Grease Traps** |
| Date | Initials | Date | Initials | Date | Initials |
| January |  |  |  |  |  |  |
| February |  |  |  |  |  |  |
| March |  |  |  |  |  |  |
| April |  |  |  |  |  |  |
| May |  |  |  |  |  |  |
| June |  |  |  |  |  |  |
| July |  |  |  |  |  |  |
| August |  |  |  |  |  |  |
| September |  |  |  |  |  |  |
| October |  |  |  |  |  |  |
| November |  |  |  |  |  |  |
| December |  |  |  |  |  |  |

# **Recycling Plan**

Document procedures for all recyclable materials and ensure all employees know how to properly recycle them to avoid potential contamination.

|  |
| --- |
| **Recycling Plan** |
| **Material** | **Procedures** |
| Paper/Cardboard |  |
| Plastic |  |
| Glass |  |
| Metal |  |
| Other: |  |
| Other: |  |
| Other: |  |
| Other: |  |
| Other: |  |

# **Spent Grain Diversion**

Document the date and weight of spent grain sent offsite.

Contact Information for person(s) taking spent grains:

Name:

Phone Number:

|  |
| --- |
| **Spent Grain Diversion** |
| **Date** | **Initials** | **Weight / Volume** |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |

# **Solid Waste Audit**

Conduct an annual waste audit to look at all common waste streams generated by the brewery (i.e., spent grain, grain bags, packaging materials, restaurant food waste, etc.). Develop and document procedures to divert from them from the landfill in the table below.

|  |
| --- |
| **Annual Waste Audit** |
| **Waste Type** | **Landfill Diversion****(Yes / No)** | **Procedure** |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |