

Wastewater Treatment Plan – Bucketty's Brewery

Wastewater & Solids Reduction

Managing wastewater to ensure an appropriate discharge consent can be adhered to should take the following form.

1. Brewery practice should be that no solids are sent to drain. Where physically possible solids should be captured and mixed with spent grain or put in solid waste removal. Specifically;
 - a. Kettle trub should be filtered through a mesh covered bin.
 - b. Spilled spent grain should be swept up and disposed of.
 - c. Tank bottoms and spent hops should be captured in bins and mixed with spent grain.
 - d. Filter media should be captured in bins and mixed with spent grain.
2. Brewery practice should be to ensure that overall pH of wastewater is around pH without further addition of chemicals. Specifically;
 - a. Overall chemical use is minimized via use of a CIP set.
 - b. Phosphoric is used during sanitation to not only as a good manufacturing practice, but to also balance caustic usage. Use of a holding tank for wastewater prior to discharge should ensure that pH aggregates to required pH7-10 without further dosing.
3. Brewery practice should ensure that water usage overall is kept to a minimum. Specifically;
 - a. Cleaning solutions are re-used where possible.
 - b. Floors are cleaned using mechanical means rather than water sprays.
 - c. Canning line when used, inverter sprays are intermittent rather than consistent.
 - d. Hot water sanitation is kept to a minimum.

WasteWater Management

With both volume, solids & pH managed appropriately, the following system will be installed to allow the brewery to adhere to discharge consent conditions;

1. An accumulation tank of circa 1000L with a submerged pump and float switch will be installed.
2. This will pump into a conical settling tank of approximately 2000L.
3. Settling tank solids will be removed every morning after settling overnight. pH will also be tested and corrected where necessary.
4. Tank will then be emptied via gravity to sewer via a flow meter and sampling point.
5. If solids requirements are not routinely met during routine sampling protocol, a bag filter will be installed between the holding and flow meter/sampling/discharge point to reduce solids where necessary.

