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Tetra Tech and
SIU's in Stevenson, WA

Hello all,
Thanks for hosting me earlier this month for the first workshop. Here is a list of recommended improvements for each site, images are included as needed. Please feel free to ask for clarity or more information if needed.

The short story is that by collecting these high strength waste materials before they go down the drain, the businesses can reduce their impact at the wastewater plant by up to 75%- and the effects are immediate.

LDB Beverage

- Doing a great capturing spilled beer at the can line and FOB.
- Definite opportunity to collect tank bottoms in the cellar. This should be collected and put in to an IBC tote.
- At the bottle filler, there is not a realistic opportunity to catch spilled product as done on the can line. However an option exists to capture product trapped in hoses or pipes at the beginning or end of a packaging run, or at changeover.
- All material collected in the totes should be hauled off site, not dumped down the drain.
- Sample images for how to collect this material is attached to this document.

Backwoods

- Previous experiments with side streaming (spent yeast) were successful but were stopped.
- Recommended improvements would be to capture whirlpool trub by modifying the valve outlet pipe. Also collect spent yeast from the centrifuge; fermenter bottoms, if not run through the centrifuge are another opportunity, as is any beer coming back to the brewery in returned kegs.
- If beer or foam blows out of the fermenter, that is another opportunity to reduce BOD.
- Sample images for how to collect this material is attached to this document.

Skunk Brothers

- There is a lack of data on craft distillery wastewater as a whole.

- A good way to collect mixed samples would be to place a dam (sand bag) in the trench drain near the outlet and collect samples from the pooled water in the trench.
- There is a lot of condenser water that dilutes everything.
- Possibly not a significant wastewater BOD contributor?

Walking Man

- This is the most challenging site of all.
    - There is almost no space inside or outside the building. Would be hard to find a home for any extra tanks or totes.
    - No forklift. No way to move anything heavy.
    - Lack of pavement outside the building. A pallet jack will not work outside.
    - Open fermenters are not conducive to wild fermenting side stream containers.
- The biggest piece of low hanging fruit is to discontinue use of the trub strainer. Instead collect all trub (solids and liquids) and haul off site. I recognize the 'haul off site' is easier said than done due to constraints above. However here are some images of some containers that are manageable when full, small, and can be purchased new or used locally via Craigslist (search 'IBC') or other buy/sell outlet:

All sites

There may be an opportunity to install one large side stream tank at the Port building instead of many totes floating around. All facilities could be hard piped in through the top of the tank. The tank could then be set up on a dialer so the truck driver could call in to check level remotely, if the tank got too full the dialer could call the driver.

Thanks again for giving me the tour of your site. Let me know if you have questions.
Thank you,

John Mercer, Owner
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