STEAM STRIPPER OPTIMIZATION TRIAL

Currently the Mill maximizes foul condensate flow to the steam stripper, with the remaining foul condensate flow going to the ASB (Attachment 1). The purpose of this proposed steam stripper optimization trial is to evaluate the capacity of the stripper to process 850 gpm of foul condensate. If successful, the trial will demonstrate that the steam stripper can treat a higher flow of foul condensate, which would allow a lower volume of foul condensate (and sulfide compounds) to be sent to the ASB for treatment.

Proposed Stripper Optimization Trial Configurations

The conceptual scope of the proposed trials will be centered around varying effective steam ratio, inlet flow to the Stripper column, and amount of heat put into the stripping process. The primary goal of these trials will be to quantify the effect of condensate flow and heat input into the Stripper column to determine the best configuration for increased TRS removal while maintaining compliance for methanol destruction. Each successive trial will reveal new learnings and contribute to the necessary operating conditions for subsequent trials.

Schedule

In early November, the Mill would like to begin the steam stripper optimization trials. The first series of steam stripper optimization trials will take place over the course of 5 days. The Mill will provide notice to DHEC and public at least 48 hours prior to the start of trial activities.

Subpart S Compliance during the Stripper Optimization Trial

Currently, stripped condensate is collected for reuse on the brown stock washers, as allowed per 40 CFR § 63.446(e)(1). However, the volume of stripped condensate generated during the trial may exceed the volume that the brown stock washers can accept. Due to the high heat content of the stripped condensate, this stream cannot be sent to the ASB in the existing hard pipe without first passing through a cooling heat exchanger. Any periods of conveyance in a non-closed system per 40 CFR § 63.446(d)(1)(2) will be reported in the Semi-Annual MACT report for July-December 2021.

Post-Trial

The Mill will submit a brief written summary to DHEC outlining the findings of the steam stripper optimization trials within 30 days of concluding the trials. Should the trials be deemed a success, the Mill will submit engineered drawings, process flow diagrams, and specifications for the optimized stripper configuration for DHEC review and approval. The lead time to acquire a new heat exchanger for permanent installation is roughly 6 months.

ATTACHMENT 1
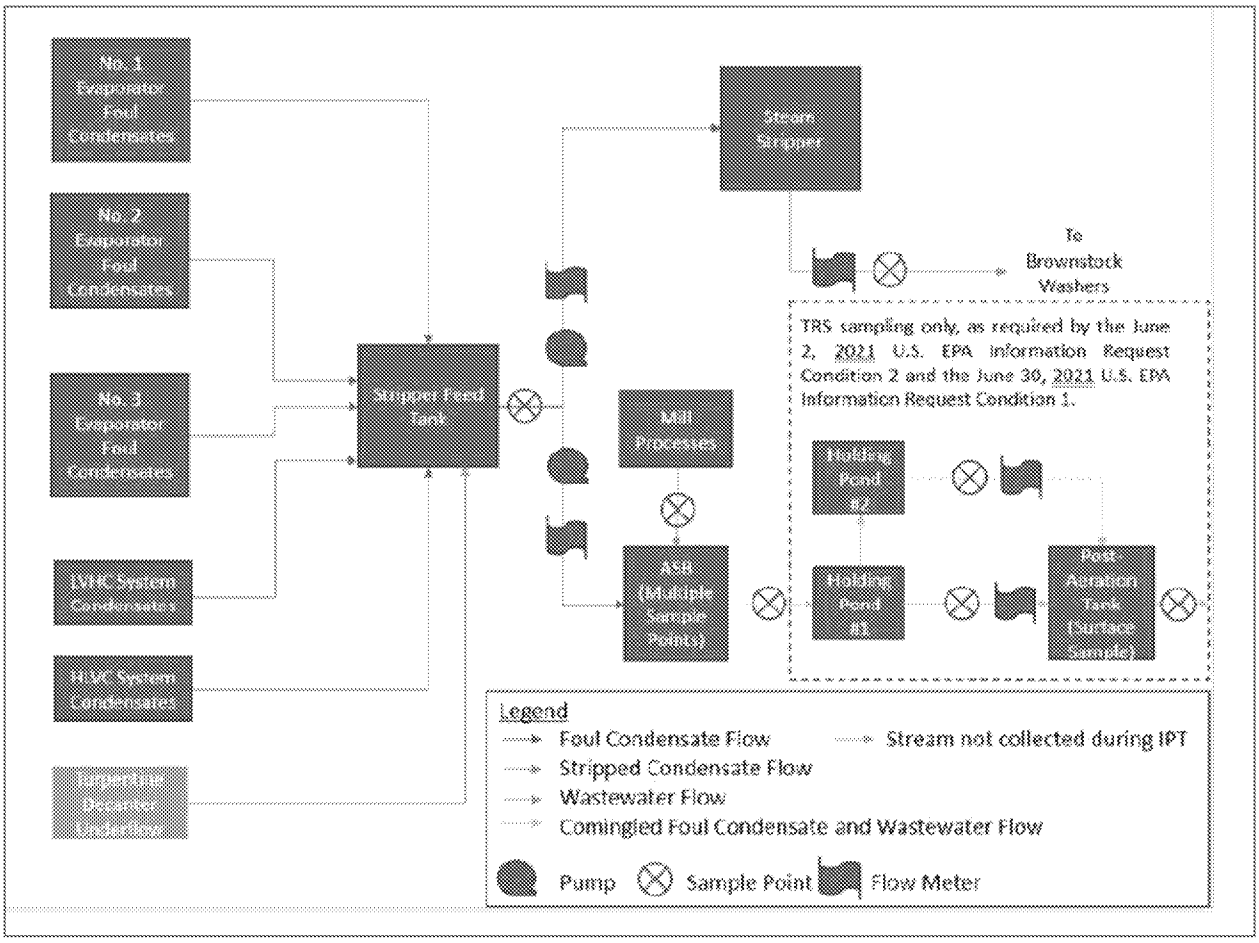
Figure 1. Foul Condensate Collection and Treatment System Flow Diagram