Preparing for an Extended Machine Outage: Coolant Management
A Guideline to Metalworking Fluid Management

Purpose: During extended machine downtime, it is important to take the proper steps to ensure metalworking fluid health. This document will outline some steps that can be taken to aid in coolant health over a long period of machine shut down.

Circulation
Providing circulation to the coolant will help to keep the fluid from becoming stagnant. During periods of stagnations, bacteria can multiply in the presence of high chip loading and tramp oil. It is important to run the machine’s pumps as often and for as long as possible to combat bacterial propagation due to stagnation.

If man power is limited, an option for smaller sumps would be to drop an airline into the sump and allow for the air to agitate the fluid. This will provide fluid movement and introduce oxygen into the system to ward off anaerobic bacteria.

If circulation in a system is not feasible, such as in a drop line dispensing system, it is recommended to drain all fluid before leaving the facility.

Concentration Control
THRIVE Aquaglide coolants, and most major coolant brands, operate on the principle of sustaining a minimum concentration for effective use. For ease of control, this limit is usually 5%. When in an extended down time situation, it is important to keep your coolant above 5%, but also below 12%. This concentration control will ensure fluid stability, rust inhibition, machine cleanliness, and biological control, without sacrificing costly non-diluted coolant concentrate.

It is also recommended that before leaving a machine to idle, any heavy tramp oil should be removed and filtration systems should be inspected for heavy fouling. If filters are heavily fouled, they should be cleaned or changed before the outage.

Continuation of Sampling
It is important during extended down times not to abandon a sampling program, particularly the monitoring of concentration, biological growth, and pH. These values will be the key indicators to the system’s overall health. This info will also aid U.S. Lubricants on suggesting mitigation strategies in the event that coolant breaks down.

Drain to Maintain
If the above strategies are not feasible for a given situation, it may be more economically feasible to clean out systems fully and store dry during extended outages.

If you have any further questions, please contact U.S. Lubricants.