

Kriss Open Chill Water Management Program

By: Steve Oswald, Kriss Water Treatment

Kriss Water Open Chill Water Management Program

Water contamination can have serious and costly effects, such as equipment damage and even failure, not to mention worker health problems. Heavy particulate matter and corrosive agents in process water can wreak havoc on your plant's productivity. The following conditions suggest that your plant is suffering from water contamination:

- Scaling of high-heat, low-flow areas.
- Clogging and/or corrosion of process components.
- Gelatinous deposits.
- Worker health complaints such as fever, chills, coughs, muscle aches, headache, tiredness, loss of appetite, and even pneumonia.



Kriss Products designed our program utilizing the powerful water treatment properties of ProMoss™ natural water treatment and the FlowMark Advanced Oxidation Disinfection System. The combination of these technologies provides a water treatment program that solves the issues associated with water-based cooling systems while protecting employees from contact with potentially hazardous chemicals.

ProMoss™ Natural Water Treatment

Industrial components suffer from the multiple issues associated with both water and air exposure. As such, equipment often becomes impeded or rendered unusable by scale formation, while water flow spreads organic contamination throughout the system. Organic contamination, along with evaporation, contributes to scale formation on these surfaces. Treating the circulating water reduces organic contamination, scale formation and corrosion on all components of the system.

ProMoss™ treatment will:

- Reduce Organic Contamination in the Chill Water System, Nozzles or Injectors, and Reduce Accumulations on Surfaces.
- Inhibit New Scale Formation.
- Reduce and Absorb Existing Scale.
- Inhibit Corrosion throughout the Chill Water System.
- Reduce Maintenance Time and Associated Costs.



The Moss™ - Safety, Shipping, Storage, Shelf Life, and Useful Life

By: Gina Chavez, Chief Operating Officer

Safety

Don't overlook the sell-ability of using The Moss™ to reduce the number and types of chemicals being used and stored on site. From an HR or safety perspective, one chemical related incident, be it a spill, inadvertent mixing, or exposure to employees or others is disruptive at least, and hazardous to health and safety and expensive at worst. If a few kilograms of The Moss™ per month can serve up the same results as the 55 gallon drums, why not use it instead?



Also in the name of safety – employee safety, if using cages, specify the CC-ITM/STS or smaller to allow for the easy removal of The Moss™ when wet. If CC-ITL/STL is used, specify a cam cleat (which CWS sells), winch or other simple machine (which CWS does NOT sell) to assist the user (any user!) with cage removal.

Shipping

A full case of ProMoss™ 3/PoolMoss® Pro 3 (with 64 – 3 brick bags) ships in a 19"x19"x13" box weighing in at 24 pounds. A summer's worth of residential PoolMoss® packs can be boxed up and mailed for a few dollars. Set your customers up on a routine shipment if you don't see them in person every month – it's not a huge investment to get in front of your customer and keep their product coming monthly.

Shelf Life

As long as it's kept dry, The Moss™ will last and last. If it sits over VERY long periods of time (years), it may dry out. In this case, it may become brittle (only an issue with 'strips,' which need to remain whole). It may also become somewhat hydrophobic – and it just takes longer to rehydrate when exposed to water for use. There is no evidence that the leaf structure, important for The Moss™'s ability to absorb cations, is affected by being dried a long time.

Storage

Just a reminder – keep the The Moss™ stored in a dry area at room temperature. We have only seen the blue mesh packaging fail during storage at extremely high temperatures.



The Moss™ is packaged in plastic to help retain the moisture it has and to keep it from accidentally getting wet during transportation and storage. If it gets wet, it expands. If it gets really wet, the activity gets carried away and isn't available for your system.

Useful Life

One month at the specified dosing rate for each type of system. From the beginning of product research and development, we have been dosing systems based on the plan to change The Moss™ once a month. Will The Moss™ last longer than a month? The simple answer is 'maybe.' Our efforts have focused on delivering and maintaining water quality results over a month. We have had pool customers who told us they were going to stretch use to 6 weeks and see what happened. They determined that 6 weeks was too long and went back to monthly changes. CWS did a study on a commercial swimming pool that had been on the moss a few years and tried decreasing their dose 10% to see what the effect might be -- and saw an increase in chemical consumption. ([See University of Maryland Case Study](#)).

With that said, if you have a system you are certain is VERY clean, it makes more sense based on our experience to reduce the monthly dose, not change less often. If it's a particularly foul system, increase the monthly dose until it gets better. Because we find that systems treated with The Moss™ get better and better over time, we believe that there is some cumulative effect – some molecules that remain in the system, for example – and you want to keep introducing new moss to contribute to this effect. Increased turbidity (reduced clarity) and increased organic contamination are two primary indicators that The Moss™ is at end of its service life in the system.