

## Crystal Meth and Your System!

Information you should know about what Crystal Meth (CM) will do in your system and how to recognize the signs you may have it in your wastewater process.

We are starting to see more and more issues with CM chemicals showing up in rural wastewater systems. This is probably due to the manufacturers thinking they are safer and less detectable in smaller communities. Less Police presence is usually true in small towns and in some cases the only law enforcement is the deputy sheriff that has too many miles to cover in one shift.

The other issue is the use of mobile CM labs. We are seeing an escalation in the use of mobile CM labs, in the form of campers, motor homes, RV's and travel trailers. This allows the CM cookers to move from town to town and create less suspicion. Also, they can discharge chemicals through any RV dump station, or in some cases any manhole in the street.

What are some of the indications you may have been hit with CM chemicals? The first one is that your system has died. This can happen to any type of system from lagoons to mechanical. There are reports of 2MGD activated sludge plants being killed with CM. Across the west, we are seeing several lagoon systems impacted each month. In some cases, there are systems that are being killed monthly.

If your system loses its biological activity and/or you are not meeting discharge, these are both signs that you may have a problem. If your system changes color, could be another sign. Color changes will range from a pinkish chalk color to a white chalk color in the early stages to black in the later stages. Once the system turns black, it will usually create lots of odor. This is when you start to get complaints from citizens. If this happens, you will need to reactivate your system's biology as quickly as possible. One formula for doing this is described below.

Other signs of CM in your system can be found in your bar screens or lift stations. These are usually things like an abundance of rubber gloves, blue shop towels, used t-shirts and hypodermic needles. Any of these are suspect, but if you get two or more at one time, then I would call your local law enforcement division.

If you are seeing these items in a malfunctioning lift station, use extreme caution when working on it. In a recent incident of a lagoon system with CM issues, we could actually see blue shop towels floating in the number one cell. As you might expect, the system did not have bar screens at the head works.

If you have an RV dump station or allow septic haulers to discharge into your system, you may be setting yourself up for a CM hit in the future. If you have an RV park in your community that discharges to your system, you should also be cautious.

In a recent case in a small Colorado town, suspicion was raised when an RV was parked next to the WWTP for three days. When asked to leave, the police later found crystal meth manufacturing materials around the parking site. This could be a good place to setup a mobile lab. Odors would be masked by the plant odors, so, try to be observant of your surroundings and what is happening in your town.

More indications are that you could see aluminum foil or blankets covering the windows as people exposed to CM chemicals are literally paralyzed by light while under the influence. On the old aluminum siding mobile homes, you will often see streaks of red rust corrosion running down the siding from the deterioration of the screws that are holding the siding in place.

One town in Wyoming was hit by a meth lab dump in 2012. What they decided to do was add potassium permanganate to re-oxygenate the lagoon at a rate of 9.3 pounds per ac-ft of water along with ProBiotic Scrubber® at a dosing rate of 0.2 gallons per ac-ft, each for 3 days. What they found was that they recovered the lagoons in less than 10 days, not the typical 60 to 180 day recovery period. This treatment also prevented the shock from entering their other 2 lagoon cells and helped them stay in compliance with their WYPDES discharge permit.

If you think you have been hit with a CM dump and your police force is skeptical, then please have them contact us. We will be happy to provide them with any information that might help them.

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