



DATA COLLECTION FOR SMALL SYSTEMS

By Douglas Smorol | Circuit Rider

One of my pet peeves that I deal with (almost on a daily basis) when I arrive at a system that has requested assistance has to do with the collection and interpretation of daily data. While almost all systems record this data everyday on their Daily Operations Report (DOH-360, DOH-360CFL, DOH-360CUV), few systems use this data as a daily snapshot of how the system is operating. For instance, I will ask the Operations Specialist what the daily number was (gallons pumped or produced in the last 24-hour period)? Quite often I will not receive a straight forward answer from the operator, the conversation will sound like this, "Well, I haven't been to the plant yet" or "So and so checked the plant today" or maybe they will just say "I wasn't paying attention." I understand you guys get busy, but those few minutes you are collecting and recording the data for the Daily Operations Report (DOR) can also be a snapshot of exactly how your system is running. A simple graph on graph paper gives a visual glimpse of what's trending with the system. Gallons per day, quarts of hypochlorite, and pump hours graphed can indicate deficiencies in the system such as pump failure, distribution leaks, and chemical feed problems. You do not have to be a computer programmer to take advantage of some of the excellent spreadsheets available right now on the NYSDOH website (www.health.ny.gov). Go to the fore-mentioned address, scroll to the bottom of the page, choose Topics A-Z, choose D, choose Drinking Water, choose Water Supply and Protection forms. Another advantage to using these spreadsheets is they will do the month end calculations thus eliminating the mistakes associated with calculating those large numbers. Another way you can utilize data daily is to chart your pump hours. More pump hours can indicate leaks in the distribution system as well as loss of pump efficiency. Electric bills for facilities can also contain data that can indicate that pumps may not be running properly. Charting hypochlorite use is also a good indicator that you are not pumping efficiently or that hypochlorite solution strength is not up to snuff. If usage is way down it could indicate that the injector is plugged and you are not getting enough disinfectant into the system or the chemical feed pump is failing.

Not all plants are created equal and by that, I mean that while some plants may have chart recorders and instrumentation, while others are bare-bones operations. If your plant is one of those, it

may pay big dividends to collect and interpret your data with the tools at hand. Not everyone has access to SCADA systems and the latest technology. By making some simple charts and graphs you can collect data that will clearly show seasonal trends that might affect the operation of your system. This may hold especially true for systems that experience large fluctuations of customers, such as resort and vacation areas. I hope this article can heighten awareness of how critical the Daily Operations Report is to small systems that may or may not have the latest instrumentation, but still makes a good effort to deliver "Quality on Tap!". 💧💧

