Keeping Records

Ask some water system managers how long they keep their plant’s various records, and they might tell you they keep them forever. Not necessarily because that’s the rule, but because they want to make sure that nothing is ever left to chance.

Rick Adamson is a good example. He’s the operations superintendent for Adams County Regional Water District (ACRWD) in Ohio, a district with a reputation of excellence in about every area of their organization.

“If something came up down the road that EPA [U.S. Environmental Protection Agency] might question or even if we’ve questioned ourselves,” Adamson says, “we have those physical records. We can go back and check to make sure what we did, at what time, and what we checked for.”

Good recordkeeping is like a kind of insurance. If an operator or manager logs the plant’s daily activities, those records will be there should they ever be needed.

Provisions of the National Primary Drinking Water Regulations require that certain operational records be maintained and reported to EPA. (See sidebar on page 54.) In addition to those obligations, it makes sense for a utility to keep records for their own purposes. The length of time they’re kept beyond what is required is up to the system’s superintendent or manager.

Old Records Can Be Useful

Adamson relates a situation where the minutes from old utility board meetings helped their district win a lawsuit to keep a village as one of their customers.

ACRWD sells water to four communities, and one of those communities wanted to pull out of the arrangement and take over another town as a customer.

ACRWD’s water system, which came online approximately 35 years ago, used funding from the U.S. Department of Agriculture’s Farmer’s Home Administration (known as Rural Utilities Service today). FHA had rules about actions communities can and can’t take when they owe money on a loan. Those rules—and the district’s records—were brought out in the ensuing litigation.

“We kept minutes from the board meetings, and we found those records about the agreements. They played a part in that lawsuit,” Adamson says. “As long as we owed money, we had to show payback ability. And, someone can’t come in and take one of your customers. If you get into that kind of stuff, you need your records to back you up.”

Records play a much larger role in water system management than protection from potentially litigious situations, although their importance from that standpoint is enormous. As mentioned earlier, EPA requires water utility recordkeeping to ensure that drinking water standards are being met. Records act as a guide for employees in performing daily operations. They are necessary for regulatory reporting to state agencies. And system records help plant personnel recognize and diagnose problems that may occur in a plant.

The Montana Water Center discusses record maintenance in their Operator Basics training course. They suggest keeping logs of the following operations, maintenance, and management components:

- system infrastructure (including maps of valve and hydrant locations, pipe sizes and locations);
- equipment purchases, repair, and maintenance;
- monitoring results, including violations received or public notices given;
- leak repair locations and dates;
- water treatment, including any related chlorine residu-
als, fluoride levels, or other monitoring results;
• source production, including static and pumping water levels, flow and water use;
• consumer complaint locations, dates, reason for the complaints and findings; and
• monitoring waivers granted by the regulatory agencies.

They also suggest that if you are uncertain about whether records should be kept about something that comes up, try to decide if the circumstances might be of use to someone working at the system in the future.

A daily operating log works well for these situations. These log books are unique to each water system, but have entries in which to document standard operations, such as flow rates, water sampling, chemical dosages, filter backwash time, and weather conditions.

**Plenty of Records: Now, how do we store them?**

Keeping all these records only makes sense if you can readily find what you’re looking for. Managing files can involve a strategy as simple as cardboard file drawers to computer systems with file management software. It also helps to keep your paper files in a cool room, and to not handle them much, especially as they age.

“It’s not really a big deal if you get some kind of system worked out as to how you’re going to keep your files, where you’re going to keep them, and how you’re going to mark them so you can find them without taking three days,” Adamson says.

“As you well know, the computer world has made things a lot easier, but we still do a lot of the hard paper work. I have many of my records here on a hard drive, then I back them up onto a jump drive. This is a little thing that you can carry on your key ring and plug into your computer. The ones I use are 128 megabytes. I keep everything backed up, because you never know when something is going to go down on you.”

Steve Wilson, manager of the West Anderson Water Company in Anderson, South Carolina, says that their water business keeps everything. “We don’t throw anything away around here. We try to hang onto everything other than the stubs that customers pay with, but we keep our part of it. We also keep records on everything that we have to do with EPA and, of course, our enforcing agency in South Carolina, the DHEC [Department of Health and Environmental Control]. And, we want to make sure we keep OSHA [Occupational Safety and Health Administration] happy. If you don’t keep those boys happy, they can make your life real miserable.”

Wilson has been working on an operations manual for about two years, which he says is up to about four inches thick. He says he even has a couple of copies of the book so that if something happened to him or to his assistant, “then one of my directors could take this book and operate the system.”

Computers also help with Wilson’s daily duties, although his numerous hard paper backups show a little mistrust of the technology, along with a sensible approach to disaster planning.

“Computers are great, and you can store a lot of information and have it handy at the touch of a button,” he says. “But, all of this goes back to our emergency preparedness plan. If something wipes out our office, then we’re still able to operate our system manually.”

Wilson refers to his planning as preventive maintenance. He makes sure that he’s got the bones of his reports filled out ahead of time in case something unexpected comes up. “We’ve never had to issue a boil water notice, but emergencies or anything could happen to make you have to do that. I am the spokesperson for our company, so I’ve already got all these forms mostly filled out. I wouldn’t have to waste time sitting in here and wondering what I was supposed to be typing up. If something was to take place, I can get my hands on it quickly. Road names or whatever you need to fill in comes at the last. Then it’s easier on me and or any of my staff.”

**Make it Work for You**

Your water utility likely already has some kind of recordkeeping procedure, but there may be room for improvement. In case you need some help deciding what records and reports to keep, the Community Resource Group, Rural Community Assistance Program’s
Water Utility Records And how long they must be kept

The National Primary Drinking Water Regulations require public water systems to retain the following records on the premises or at a convenient location nearby:

- Bacteriological analyses must be kept for at least 3 years.
- Chemical analyses must be kept for at least 10 years. Actual laboratory reports may be kept or just the data, as long as the information includes the following:
  - the date, place, and time of sampling and the name of the person who collected the sample;
  - identification of the sample as to whether it was a routine distribution system sample, check sample, raw or process water sample, or other special purpose sample;
  - date of the analysis;
  - laboratory and person responsible for performing analysis;
  - the analytical technique/method used; and
  - the results of the analysis.
- Records of sampling data and analyses, reports, surveys, letters, evaluation, schedules, state determinations, and other lead and copper control information must be kept for at least 12 years.
- Enhanced filtration and disinfection records for systems serving fewer than 10,000 people:
  - turbidity results from individual filter monitoring must be kept for at least three years.
  - disinfection profiling results (including raw data and analysis) must be kept indefinitely.
  - disinfection benchmarking (including raw data and analysis) must be kept indefinitely.
- Records of corrective measures for violations of primary drinking water regulations must be kept for at least 3 years after the last corrective action taken.
- Copies of written reports, summaries, or communications relating to sanitary surveys must be kept for at least 10 years.
- Records concerning a variance or exemption granted to a system must be kept for at least five years after its expiration.
- Copies of public notices must be kept for at least 3 years.
- Copies of consumer confidence reports must be kept for at least 3 years.


(Southern RCAP) Community Water Bulletin (February 2004) lists:

- weekly operations log sheets;
- monthly chlorine residual reports;
- maintenance and repair log book;
- lead and copper test results;
- E. coli test results;
- sanitary surveys;
- consumer confidence reports;
- operator certifications and re-certifications;
- monthly reports sent to the public health office;
- copy of your state’s sanitary code referring to drinking water; and
- all correspondence with the public health office.

Some other general items to keep include administrative, electronic, fiscal, and utility records (billing, fuel accounting, meter reading, service); certain personnel records; system permits; and system design and construction records (plans, drawings, maps).

The RCAP bulletin also suggests that you include instructions on where to file completed reports and records and how long each should be kept. You can create your own list of records that should be kept, and be sure to have samples of each record or report form. These sample forms will help new hires become familiar with reporting, and they serve as a basis for your recordkeeping system.

Another important note to remember is to make sure employees know not to destroy any records in the midst of an audit or during any kind of litigation against the system. Even the most innocent of intentions may be misconstrued under these circumstances. Make record retention—and destruction, if you’re so inclined—a regular part of your system’s business. Keeping accurate records consistently over time, and removing unnecessary files when they’ve outlived their usefulness, demonstrates that your utility has a standardized plan and is less likely to be perceived as retaining good reports and destroying the bad.

“You need to cover yourself,” Adamson says. “As a certified operator and certified through the state, I’m responsible for the people that I serve in the county. It’s my responsibility to have that paperwork should something transpire and I would need to go back to it.”

The Operator Basics course developed by the Montana Water Center is available on CD at no charge. Call the National Environmental Services Center (NESC) at (800) 624-8301 or send an e-mail to info@mail.nesc.wvu.edu and request product #DWCDTR18.

If you’ve got suggestions for good records management practices, we’d like to hear about them. Call us or drop us a line, and we’ll put your suggestions on the NESC Web site.

In addition to Michelle Moore’s role as associate editor of On Tap, she is also a NESC promotions editor.