

## **Would you drink water from a dirty glass?** **(Developing a tank maintenance program)** **By Chris Griffin, ADEM**

A system's water storage tank is similar to a glass you take out of the cabinet. You fill it up with water and drink from it. If that glass is dirty you are going to wash it. The same should be true for your systems water storage tank.

Water storage tanks are the forgotten part of the water system. It is taken for granted that the water in these tanks is just as clean and pure as it was when it left your plant. If you were to take a close look at what is on the inside some of your tanks, I think you will be surprised.

If you have one or more tanks and their projected life can be viewed as indefinite, then you need to establish a tank maintenance program for each. A tank, like any other part of the water system, requires maintenance. If this maintenance is properly performed, the life of your tank can be indefinite. If a tank is not maintained on a regular basis there is a high probability that this tank will have to be replaced before its projected life span is reached. The cost of constructing a new tank is in the hundreds of thousands of dollars. A routine maintenance program will help the system keep a tank in good condition and alleviate the cost of constructing a new tank; this should save the system a substantial amount of money over time.

Most tank owners do not have the personnel or equipment to perform this maintenance on their own. For this reason, many systems employ engineers, outside inspectors or private contractors to perform this service. The persons employed by the system should have a good reputation and be well established in this particular field.

In establishing a preventive maintenance program for your tanks, you should include and budget for the following items:

- All costs associated with annual inspections of tanks
- All costs needed for interior and exterior repairs
- All costs to ensure that the tank is sound, watertight, and in working order.
- All costs associated with locking and securing the tank i.e., fencing, ladder gates, pad locks
- All costs associated with washout and disinfection of the tank after the inspection.
- All costs associated with ensuring the tank is in good working order and meets ADEM requirements for water storage facilities.

ADEM has certain recommendations about routine tank maintenance. A tank should be drained, inspected and repaired and disinfected a minimum of once every 5 years. Ideally, a system should inspect each tank on an annual basis and drain and disinfect each tank along with the inspection on a biennial basis. Painting each tank every 15 to 20 years or as needed to keep it

aesthetically pleasing and properly protected should follow this up. These time frames are what ADEM feels are appropriate intervals between each service but may vary depending upon who the system has a contract with.

Routine preventive tank maintenance is a necessity for systems that want to get the most use out of its water storage facilities. Some systems currently have a tank maintenance program utilizing the services of an engineering firm or a private company that specializes in tank maintenance. To those systems, I commend you for your efforts to maintain your water storage facilities. To those systems that do not have any form of a tank maintenance program, I hope you will decide to develop one.