



# Operation & Maintenance of a Water Storage Tank

## Operation of a Water Storage Tank

- Monitor min and max water level
- Monitor time to fill and empty tank
- Monitor occurrence of overflows
- Monitor occurrence of alarms
- Monitor for ice formation in tank
- Monitor chlorine residuals in tank
- Monitor distribution system water demand and pressure

## Routine Inspections: Weekly

- Confirm gate locked, fence secure
- Check chlorine residuals in tank
- Check for leaks, rust, penetrations
- Check screens, vents, overflow, access hatches all secure
- Check level controls operational
- Check for spilling from overflow
- Check for unauthorized access/vandalism

## Periodic Inspections: Annual

- Remove dirt and weeds from base of tank and outlet, and any vegetation that may scratch tank shell
- Check interior of tank and riser
- Check tank shell to foundation connection
- Check for concrete deterioration

- Check interior and exterior tank coatings for deterioration
- Check tank foundation for cracks, exposed reinforcing steel, settling, erosion
- Check grout or sealant for cracks, gaps or deterioration
- Check anchor bolts for deterioration, tightness, dirt
- Check tank ladder for corrosion, cracked welds, missing or loose bolts
- Check tank roof for low spots that hold water and roof trusses for damage
- Check screens for holes, debris, icing or snow blockage
- Undertake coating touch-up, clean and repair components, tighten bolts

## Comprehensive Inspections/ Tank Cleaning: 3-5 Years

- Drain and clean tank interior
- Examine 100% of tank and components
- Do testing on: tank shell thickness and integrity, metal content in paint, HPC of tank wall biofilm, etc.
- Repair any damage to tank or components
- Test water level indicators, sensors and gauges for accuracy and calibrate
- Disinfect tank before putting back into operation and confirm microbiological safety with 2 samples taken 24 hrs apart

**Check Operation and Maintenance Manual provided by tank manufacturer for more details on O&M specific to your tank and its components**

**Keep a record of tank operational conditions and inspection findings**