DON'T LET THIS HAPPEN TO YOU!

Winterizing an RPZ (Reduced Pressure Zone) Backflow Preventer

North Texas has mild winters, but we do get freezes. You need to protect your above ground backflow preventer when the temperature drops below 32°F so that trapped water doesn't freeze, expand, and damage the device.

1. Shut off the isolation valve. This valve is usually found in the ground inside a green colored valve box, either close to the backflow device or the water meter. The isolation valve needs to be "freeze proof" — either below the frost line or wrapped with insulation.

2. If you have an automatic controller, turn it to the "off" or "rain" mode position, shutting off signals to the valves so they don't come on. The controller will continue to keep time, and your programming won't be lost. It's a wise precaution to shut off the power to the controller if a pump is wired to it. The pump could get damaged if, by a remote chance, the controller started it when the system was shut off. When you start up the system again, you'll have to reprogram the time, and possibly your settings. Mechanical controllers use more electricity than the automatic ones, so turn off their power to save electricity. You have no settings to lose in this case.

3. Remove the dust caps from the four test cocks on the RPZ.

4. Take a small flat-head screwdriver and turn the screw in the center of each test cock to a 45-degree angle, opening the test port. Water may shoot out with some pressure, and drip for a short time. Leave the screws at 45 degrees, which is the halfway off position. Any water left in the device should evaporate, so there isn't any left inside to freeze and cause damage.

5. Next, turn shutoff #1 and shutoff #2 handles to a 45-degree angle or the halfway off position. This prevents water from being trapped in the shutoffs and causing freezing damage to them (never leave the shutoff handles in the fully open or closed position when freeze protecting your device).

6. Loosen bolts on the relief valve cover until the water drains.

7. Insulate the exposed pipes by wrapping them in foam pipe wrap, followed by a heavy rubber tape to protect the insulation. Then cover the backflow device with an insulation bag. Some customers find using a fake landscape rock beneficial to further protect the device from the elements.

8. If you wish to run your system once the freeze is over, remove the insulation bag, and open the isolation valve. Water will shoot out of the device test ports, allowing any air or debris to escape. Next, close the test cocks with a screwdriver (screw slots vertical). This will stop water spraying out of the backflow preventer. Turn the #1 and #2 shutoff valve handles to the fully open position. Tighten the bolts on the relief cover. You can keep the insulation on the pipes, but the relief valve must be free of obstruction for the device to operate properly. Set your controller.

To properly winterize your backflow preventer, you must have an isolation valve. For new irrigation systems the Texas Commission on Environmental Quality (TCEQ) Code states, "All new irrigation systems must include an isolation valve between the water meter and the backflow prevention device", Rule 344.62. If you have an older system and don't have an isolation valve, leave the backflow device on, and properly insulate it for a freeze. Call your irrigation professional to have one installed for you so you can winterize your device in the future. Also, they should be glad to help you with winterizing if you do not want to do it yourself.