Getting Ready for Old Man Winter

By Vince Patterozzi

As we all know, a sports field irrigation system constitutes a substantial financial investment. Therefore, it is our obligation as conscientious sports field managers to protect that investment as best we can.

Every year the sports field manager must make the decision of when and how the irrigation system is to be winterized, if at all. For those of us that must, it can be a day-to-day or week-to-week process of determining exactly when we should or can winterize our systems. At this point, an explanation of what constitutes winterization is in order. Winterization of an irrigation system ensures the system and all of its components are placed in a condition of nonuse and are safe from damaging climatic conditions such as freezing, heaving and general exposure to sub-freezing temperatures. It is performed after turfgrass or other plant growth has ceased. All zones have different dates when winterization procedures need to be completed. However, no matter which zone you work in, the criteria for determining when to winterize is the same.

A Chilly Checklist

Among the criteria that must be factored into winterization timing are ambient air temperature, soil temperature, soil moisture content, growth stage of the turfgrass, general sports field condition and length of the season of the particular sport using the field.

At the high school or college level, fall sports are generally finished by the first week of December. By contrast, the pro-

Pump Station Checklist

The following is a winterization checklist that works for most pump stations. Maintenance on pumps should not be attempted unless you have the proper knowledge and tools to work on pumps. Before beginning a winterization program, consult the manufacturer's technical guidebook on winterization.

- Always refer to the maintenance manual for winterization details;
- Shut off the water source, drain and blow out the sprinkler system;
- Drain the pump completely, leaving all drain plugs open;
- Blow out all pilot lines and the pilot device on the control valve, leaving the tube disconnected;
- Make sure all of the water in the pressure switch is out, leave the tube disconnected;
- Tighten all connections, electrical and mechanical;
- Use steel wool and/or sandpaper to remove any rust;
- Use a high-quality rust-proof paint to cover rusted areas;
- Grease all fittings on the pump station;
- Remove aluminum intakes for the winter, clean the exterior and interior of the inlet or foot valve screen;
- Change the oil (turbine pumps); and
- For exposed pump stations, canvas may be used to cover the unit. Do not use plastic.

Just like a lawn mower or any other piece of equipment, proper maintenance will keep a pump station working like a champ. Winterization enables the equipment to get a safe rest during the winter so it can go to work in the spring.
Professional football season will last through mid-January (hopefully!). In a "typical year," if there is one, early December provides ample opportunity to winterize your system. By mid-January, it might be too late and you may run into problems.

Regardless of the time of season that offers the opportunity to winterize, the grounds staff of the Cleveland Browns has always used the same procedure and equipment:

We rent an air compressor capable of producing at least 80 to 90 psi air pressure. We then hook it up to a quick-coupling valve, located between the irrigation pump and the mainline shut-off valves.

We then systematically open each lateral irrigation line electric solenoid valve, using our irrigation controller. Prior to opening the solenoids, we make sure the main water supply valve is shut and the pump is locked out in the nonoperating position.

It is important that two things occur at this time. First, before turning the air valve on, make sure you have a solenoid valve open or a quick-coupler key in a quick-coupler valve so that you do not get excessive pressure buildup in the irrigation piping. Second, once you are sure you have a pressure-relief point, open the air compressor air valve slowly so that the air slowly bleeds into the irrigation piping network and through the irrigation heads.

We will typically "blow" our mainlines and submains out before we open the lateral-line electric solenoid valves. This way, we don't push a large volume of water through the irrigation heads.

At the point where you have pressurized the lateral lines and you are "pushing" water through the heads, you can partially close your quick-coupler relief key so that you can maximize your head pressure.

After we have blown the entire system out and the weather permits, we remove all of the heads and cap the swing joints. This procedure allows us to clean or fix any heads that are in need of repair over the winter.

It is also a good idea to inspect your valves and pump(s) at this time and perform any necessary repairs. In the spring, we replace the heads onto the swing joints and recharge our system.

During the 1994-95 football season, we did not winterize the irrigation system at Cleveland Stadium until January 17. The Browns were in the playoffs and the early winter had been warm and dry. We were overseeding, fertilizing, watering and mowing as late as January 16. This may sound unusual, but being a few hundred feet from Lake Erie assists us sometimes late in the year by keeping soil temperatures warm. 0

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