

# QUESTIONS AND ANSWERS FOR IRRIGATORS

## I. NEW RULES EFFECTIVE DATE

- **When must I comply with the new rules?**

The new rules took effect January 1, 2009; all new irrigation systems must comply with the rules.

***EXCEPTION: the requirement to have either an irrigator or Irrigation Technician on-site during the installation of an irrigation system is effective on January 1, 2010.***



- **Are any irrigation systems exempt from the rule requirements?**

Yes, the following irrigation systems are exempt from the rule requirements:

- On-site Sewage Facilities
- Used on or by an Agricultural Operation
- Connected to a groundwater well used by the property owner for domestic use.

- **Do the Landscape Irrigation rules apply to residential and commercial irrigation systems?**

Yes, the rules apply to residential and commercial irrigation systems.

## II. IRRIGATION PLAN

- **When is an irrigation plan required?**

An irrigation plan is required for all new landscape irrigation systems. An irrigation plan is not required for the maintenance, alteration, repair, or service of an irrigation system. The addition of new zones does not trigger the requirement for an irrigation plan; however, irrigation system owners may *request* an irrigation plan.

- **What scale must be used for the irrigation plan?**

An architectural or engineering scale may be used. The plan must be legible. There are no requirements for the scale, irrigators might consider using the following:

- residential installations – 1” equal to a maximum of 30’
- commercial/athletic installations – 1” equal to a maximum of 40’
- golf course or comparable installations – 1” equal to a maximum of 100’ or 1” equal to a maximum of 50’ (depending on complexity)

- **What must be included on the plan?**

<u>Site-specific information:</u> <ul style="list-style-type: none"><li>- physical features</li><li>- boundaries</li><li>- zone flow measurements for each zone</li><li>- location/type of: controllers and sensors</li><li>- location/type/size of: water source, backflow prevention device, water emission device, valves, pressure regulation component, main line and lateral piping.</li><li>- design pressure</li></ul>	<u>General information:</u> <ul style="list-style-type: none"><li>- irrigator’s seal</li><li>- irrigator’s signature below seal</li><li>- date sealed</li><li>- North arrow</li><li>- legend</li><li>- scale used</li></ul>
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See [§344.61](#) for more information on the initial plan.

- **Is the plan kept on-site during the installation of the irrigation system?**

Yes, the plan should be on-site during the installation of the irrigation system and changes to the plan should be marked in red.

- **What happens to the plan when the project is finished?**

The irrigation plan showing the actual installation of the irrigation system is provided to the irrigation system owner or the owner's representative as part of the final walk through. The irrigator must maintain a copy of the plan for a period of three years.

- **I use computer generated plans and keep electronic copies of my plans. Do I have to create a hard copy for my files?**

No, you may maintain an electronic file. Keep in mind that you may be asked to provide a hard copy for complaint investigations.



- **If I prepare an electronic plan, can I use an electronically generated signature and seal on the plan?**

Yes, an electronic signature and seal are acceptable. The signature and seal should be legible on any copies that are produced.

- **Since I prepare electronic plans, can I make modifications to the initial plan that show the actual installation of the irrigation system, mark the plan as “Installed Irrigation System”, and provide the drawing to the irrigation system owner? Is it necessary to show what changed from the original drawing?**

Yes, it is important that the plan clearly indicates that the drawing is final and represents the installation of the irrigation system. The drawing serves two purposes – a guide to the crew actually installing the system and assistance to the irrigation system owner or operator in maintaining and repairing the irrigation system.

### III. FINAL WALK THROUGH/COMPLETION OF THE IRRIGATION SYSTEM INSTALLATION

- **Who can conduct the final walk through?**

The final walk through can be conducted by either the irrigator or the Irrigation Technician that provided the on-site supervision of the installation. The walk through may be conducted with either the irrigation system owner or someone designated by the irrigation system owner.

- **What must be included in the final walk through with an irrigation system owner?**

The final walk through is the opportunity to educate the irrigation system owner on how to operate the system correctly to maintain a healthy yard and to conserve water.

Several documents shall be provided to the irrigation system owner:

- Manufacturer's manual for the *automatic controller*;
- Seasonal *watering schedule*;
- *List of components that require maintenance* and the *recommended frequency of service*;
- *Irrigation plan* showing the installed system; and
- *Maintenance checklist*.

The *Maintenance Checklist* contains:

- the signature of the irrigation system owner or the owner's representative;
- the irrigator's seal, signature and date; *and*
- this statement: "This irrigation system has been installed in accordance with all applicable state and local laws, ordinances, rules, regulations or orders. I have tested the system and determined that it has been installed according to the Irrigation Plan and is properly adjusted for the most efficient application of water at this time."

[Sample Maintenance Checklist](#)



***Don't forget:*** Place a *permanent sticker* that has your name, license number, company name, telephone number, and the dates the warranty is valid on the automatic controller. No automatic controller? Put the sticker on the original maintenance checklist.

[Sample Sticker](#)

- **I can't schedule a walk through with the irrigation system owner or a designated representative. What can I do?**

If the irrigation system's owner or owner's representative is unwilling or unable to sign the maintenance checklist, the irrigator should note the time and date of the refusal on the irrigation system's owner's signature line. Keep a copy of the maintenance checklist and note the date that the documents were delivered to the irrigation system owner/designated representative.

- **I've just completed the installation of an irrigation system at a bank and I've been awarded a maintenance contract to maintain the irrigation system for the next two years. How should I indicate this information on the Maintenance Checklist?**

In this instance, you are the owner's representative. Note on the Maintenance Checklist the dates of the maintenance contract. Once you no longer maintain the irrigation system, you should provide the irrigation plan, manual, etc. to the irrigation system owner or the owner's new representative.

## **IV. MAINTENANCE, ALTERATION, REPAIR, OR SERVICE OF AN IRRIGATION SYSTEM**

- **I only perform maintenance, alteration, repair, or service of an irrigation system. What am I now required to do differently?**

There are several rule changes that apply to the maintenance, alteration, repair, or service of an irrigation system:

- ✓ Any *trenches or holes* that are created during the maintenance must be returned to the original grade with compacted select backfill.
- ✓ *Colored PVC pipe primer solvent* used on pipes and fittings used in maintenance must be in accordance with either the Uniform Plumbing Code (Section 316) or the International Plumbing Code (Section 605).
- ✓ If the maintenance work involves *excavation work at the water meter or a backflow prevention device*, an isolation valve must be installed if one is not already present.
- ✓ If an irrigation system is connected to a potable water supply and maintenance of the irrigation system requires *opening* to the atmosphere of the irrigation system *main line* at any point prior to the discharge side of the irrigation zone control valve, then the system must be connected through an approved, properly installed backflow prevention method.
- ✓ If an *existing controller is replaced*, a rain or moisture sensor or other technology that is designed to interrupt the operation of an irrigation system during periods of rain must be installed. This requirement does not apply in the following counties: El Paso, Hudspeth, Culberson, Jeff Davis, Presidio, Brewster, Terrell, Loving, Winkler, Ward, Reeves, Ector, Crane or Pecos.
- ✓ *Written estimates, proposals, bids, and invoices* must contain the TCEQ statement. The statement has changed to include the TCEQ website address. The new statement is: "*Irrigation in Texas is regulated by the Texas Commission on Environmental Quality (TCEQ) (MC-178), P.O. Box 13087, Austin, Texas 78711-3087. TCEQ's web site is: [www.tceq.state.tx.us](http://www.tceq.state.tx.us).*"
- ✓ Provide the irrigation system's owner or owner's representative with a *written document that identifies the materials* furnished in the maintenance of the irrigation system.
- ✓ If a warranty is provided for the maintenance of the irrigation system, it should clearly state the warranty period for the work and/or parts and must be honored. The warranty document must include the irrigator's name and business contact information.
- ✓ Be aware of irrigation system *design and installation requirements* ([§344.62](#)) that might impact the work that you perform.
- ✓ Be aware of *record keeping requirements* ([§344.38](#)) that require maintaining archival copies (hard or electronic) of documents given to the irrigation system owner or owner's representative. Records must be

- maintained for three years and made available to TCEQ or to a local regulatory agency within ten business days of a request.
- ✓ All maintenance, alteration, repair, or service must promote water conservation.
  - ✓ Local areas may adopt more stringent requirements.

## V. DESIGN AND INSTALLATION STANDARDS

- What are the new design and installation standards?

There are several changes to the rules. Additional information can be obtained in [§344.62](#), Minimum Design and Installation Requirements.



**You may maintain a reference library for the components that you use. You do not need to include the manufacturer's publications in your job files. When material becomes dated, you can archive the document until the last installation using that publication information is three years old, then discard the reference copy.**

- ✓ *Do not exceed the manufacturer's published radius or spacing between emission devices.*
- ✓ *New irrigation systems may not utilize above-ground spray emission devices in landscapes that are less than 48 inches (not including impervious surfaces) in either length or width and that have pedestrian or vehicular traffic surfaces on two or more sides.*
- ✓ *Do not use any component (including the water meter) in a way that exceeds the manufacturer's published performance limitations for the component.*
- ✓ *Pop-up sprays or rotary sprinkler heads used in new irrigation systems must:*
  - *Direct flow away from adjacent surfaces; and*
  - *Be installed no closer than four inches from a hardscape.*  
(Narrow paved walkways, jogging paths, golf cart paths or other small areas located in cemeteries, parks, golf courses or other public areas may be exempted from this requirement if the runoff drains into a landscaped area.)
- ✓ *Emission devices must be installed to operate between the minimum and the maximum sprinkler head pressure as published by the manufacturer for the nozzle and head spacing that is used.*
- ✓ *The flow of water in polyvinyl chloride (PVC) pipe cannot exceed a velocity of five feet per second.*
- ✓ *Separate zones should be used based on plant material type, microclimate factors, topographic features, soil conditions, and hydrological requirements.*
- ✓ *All emission devices in a zone should irrigate at the same precipitation rate.*
- ✓ *No spraying of water over impervious materials.*
- ✓ *If a master valve is provided, it must be installed on the discharge side of the backflow prevention device.*



- ✓ PVC pipe primer solvent must be primed with *colored primer prior* to applying PVC cement and be installed in accordance with the Uniform Plumbing Code (Section 316) or the International Plumbing Code (Section 605).
- ✓ An *isolation valve* is required between the water meter and the backflow prevention device.
- ✓ *Piping* must be installed in accordance with the manufacturer's published specifications for depth of pipe coverage.
- ✓ If the manufacturer does not specify depth coverage for pipe, *the pipe must be buried at least six inches deep*. The pipe must be covered with six inches of *select backfill* between the top of the pipe and the *natural grade of the topsoil*. *Mounding* with select backfill may be used in some instances but must be noted on the *irrigation plan* and discussed with the irrigation system owner to address safety issues. (Note that mounding is appropriate only if the area being irrigated is rock and lines cannot be buried at the appropriate depth.)
- ✓ Trenches and holes must be *backfilled and compacted* to the original grade.
- ✓ Wiring used to *connect an automatic controller* to any electrical component of the irrigation system must be listed by the *Underwriters Laboratories* as acceptable for burial underground.
- ✓ Electrical wiring connected to an irrigation system must be sized according to manufacturer's recommendations.
- ✓ Electrical splices that may be exposed to moisture must be waterproofed as certified by the wire splice manufacturer.
- ✓ Underground electrical wire used in an irrigation system must be buried with a minimum of six inches of select backfill.
- ✓ *No drinking or domestic use* connections (such as filling swimming pools or decorative fountains) from the irrigation system are allowed.
- ✓ If a *hose bib* is connected to an irrigation system, it *must be installed using a quick coupler key installed in a covered purple valve box*. The hose bib and hoses connected to the bib must be labeled "non-potable, not safe for drinking." An *isolation valve* must be installed upstream of the quick coupler.

- **What are impervious surfaces or hardscape?**

Both terms are used to refer to: building foundations, fences, concrete, asphalt, pavers, stones, brick, wood, stones set with mortar, sidewalks, streets, walls, etc.



- **When is a rain or moisture shut-off device required?**

A rain or moisture shut-off device or similar technology is required on (1) all new irrigation systems that have an automatic controller and (2) all replacements of automatic controllers at existing irrigation systems. The requirement to install a rain or moisture shut-off device does not apply in the following counties: El Paso, Hudspeth, Culberson, Jeff Davis, Presidio, Brewster, Terrell, Loving, Winkler, Ward, Reeves, Ector, Crane or Pecos.

*The rain or moisture shut-off device must be installed in accordance with the manufacturer's published recommendations.*

***All irrigation systems must be designed, installed, maintained, altered, repaired, serviced, and operated in a manner that promotes water conservation.***

- **What does the requirement to use separate irrigation zones based on plant material type, microclimate factors, topographic features, soil conditions, and hydrological factors really mean?**

<b>Term</b>	<b>Consideration</b>
Microclimate	Structures, paved areas, shade, wind conditions, or direct sunlight
Topographic	Slope, elevation, grade
Hydrological	Grouping similar emission devices together so that the maximum gallons per minute of available flow are not exceeded and performing calculations to determine that the system will operate correctly.
Plant material	Trees, shrubs, and flower beds should be on different irrigation zones. Plants may need to be broken down into further classifications – a rose bush and a cactus would not have the same watering requirements.
Soil conditions	Sand, clay, loam, combination

*These concepts are taught in basic irrigation courses and continuing education courses that are required to maintain an irrigation license in Texas.*

- **What is select backfill?**

The definition of select backfill is backfill that is “free of building debris and rocks larger than two inches.”

- **If I allow the required four inches of space away from any hardscape, there will be a resulting brown circle in the grass because of the lack of water. Is there a way to address this concern?**

Yes, newer spray nozzles are designed with a dual spray pattern applying water within the 4" area and to spray water further away.

- **I am installing an irrigation system at a golf course and the flow through the pipes may exceed 5 feet per second. Is this a problem?**

The rules state that water flowing through PVC pipe should not exceed 5 feet per second. If the pipe being used at the golf course is PVC pipe, this would be a problem because the irrigation system would not comply with state rules.

- **There is a requirement to use colored primer on plastic pipes. I currently use pipe that does not require primer. What should I do?**

The International and Uniform Plumbing Codes permit the use of CPVC pipes and fittings that are manufactured in accordance with ASTM D2846 without the use of primer. Other plastic pipe joints must be joined using primer and solvent cement.

- **How long does a drip irrigation system last?**

When properly maintained, a drip irrigation system can last 10 years or longer. At least one manufacturer provides a seven year warranty and reports that their products are still working after 20 years. It is important to design the drip irrigation system in a manner that does not exceed the manufacturer's recommended pressure range and to educate the irrigation system's owner in the proper maintenance of the irrigation system such as cleaning filters, etc.

- **Why is TCEQ prohibiting spray strips in areas that are four feet wide? Several manufacturers make strips that work well in areas that are four feet wide.**

The prohibition is for areas that are *less than 48 inches wide*. An area that is four feet wide could have spray strips.

## **VI. RECLAIMED WATER**

- **What is reclaimed water?**

Reclaimed water is “domestic or municipal wastewater which has been treated to a quality to make it suitable for beneficial use, such as landscape irrigation.”

- **Can reclaimed water be used in landscape irrigation systems?**

Yes, check with your local water purveyor to determine if there are any local requirements or restrictions on the use of reclaimed water in landscape irrigation systems. Your local water purveyor can also provide information on the required backflow prevention device and the frequency of any testing that will be required to make sure the backflow prevention device is working correctly.

- **What requirements must be met when using reclaimed water in a landscape irrigation system?**

- ✓ *No direct contact* with edible crops, unless the crop is pasteurized (heat-processed to kill bacteria) before consumption (Note: See the U.S. Food and Drug Administration’s web site at <http://www.cfsan.fda.gov/~dms/fttfruit.html> for additional safety information);
- ✓ *Does not spray water across property lines* that don’t belong to the irrigation system’s owner;
- ✓ System is installed using **purple components**;
- ✓ Domestic potable water line is connected using an *air gap or a reduced pressure principle* backflow prevention device ([See §290.47\(i\)](#));
- ✓ The *appropriate backflow prevention* device is used; and
- ✓ A *sign* (minimum size is eight inches by eight inches), in English and Spanish, is prominently posted in the area.

Sample Sign

**RECLAIMED WATER – DO NOT DRINK  
AGUA DE RECUPERACIÓN – NO BEBER**

## VII. ADVERTISING

- **When do I use my license number?**

Your license number should appear on:

- ✓ *Vehicles* used in installation, maintenance, alteration, repair, or service of irrigation systems;
- ✓ *Trailers* that advertise irrigation services;
- ✓ *Written and electronic advertisements* for irrigation services including *business cards and estimates*; and
- ✓ *Contracts, proposals, bids, and invoices.*

- **Are there requirements for the license number on my vehicle?**

Yes, the letters must be in the form of “LI\_\_\_\_\_”, in a contrasting color of block letters at least two inches high. The license number must be displayed on both sides of the vehicle.

- **My firm employs several irrigators, which license number should be used?**

The license number of any or all of the irrigators may be used. This is a business decision.

- **Are there any other changes to the advertising requirements?**

Yes, when you display your license number, you do not need to include the leading zeros (for example, LI 98765).

- **Can the TCEQ logo be used in my advertising materials?**

No, individuals that are in a regulatory relationship with the TCEQ may not use the TCEQ logo because it may be perceived as a TCEQ endorsement. You may advertise that you are licensed by the TCEQ. You may also advertise that you are regulated by the TCEQ and may provide a link to the TCEQ web site. The State of Texas has intellectual property rights in TCEQ’s logo and it may not be used without TCEQ’s permission.



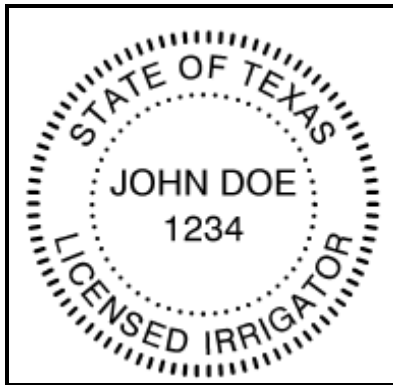
## VIII. SEAL

- **Is an embossing seal with a raised impression or a rubber stamp allowed?**

Both types of seals would be appropriate, as long as they are photographically reproducible.

- **How must the irrigator's license number be displayed on the seal?**

The license number should be displayed horizontally in the center, excluding "LI" and the leading zeros. For example, LI0001234 would become 1234. Please see sample seal below.



## **IX. BACKFLOW PREVENTION AND CROSS CONNECTION**

- **Which backflow prevention devices are acceptable for use?**

Irrigation systems that are connected to a potable water supply must be connected to the water supply using a *backflow prevention device approved* by one of the following:

- ✓ American Society of Sanitary Engineers
- ✓ Foundation for Cross-Connection Control and Hydraulic Research
- ✓ University of Southern California
- ✓ Uniform Plumbing Code
- ✓ Any other laboratory that has equivalent capabilities for laboratory and field evaluation.

The *installation* must be in accordance with the laboratory approval standards or if there is no specific installation information, in accordance with the manufacturer's published recommendations.

- **When must backflow prevention devices be tested?**

All backflow prevention devices must be *tested upon installation* prior to placing the irrigation system in service. Irrigators must ensure that the *test results* are provided to the water purveyor and the irrigation system's owner or owner's representative within ten business days of the backflow prevention device test. Backflow prevention devices used in health hazard applications must be *tested annually*, in addition to the initial test. Check with your local water purveyor to determine if there are more stringent local requirements.

- **What type of backflow prevention device must be used?**

If a health hazard exists, an air gap, reduced pressure principle, pressure vacuum breaker or atmospheric vacuum breaker must be used. The following table describes the conditions that apply to each type of backflow prevention device. Local areas may have more stringent standards.

Type of Backflow Prevention Device	Conditions (See <a href="#">§344.50</a> and <a href="#">§344.51</a> ).
<b>Air gap</b>	<ul style="list-style-type: none"> <li>✓ <i>Unobstructed</i> physical separation</li> <li>✓ Distance from the lowest point of the water supply outlet to the flood rim of the assembly into which the outlet discharges is at least one inch or is twice the diameter of the water supply outlet, <i>whichever is greater</i></li> <li>✓ If a <i>chemical</i> is added to the irrigation system</li> <li>✓ More than one <i>water source</i></li> </ul>

<b>Reduced pressure principle</b>	<ul style="list-style-type: none"> <li>✓ Installed at least <i>12 inches</i> above the ground</li> <li>✓ Assembly will <i>not be submerged</i></li> <li>✓ <i>Drainage</i> provided for any discharge from the relief valve</li> <li>✓ If a <i>chemical</i> is added to the irrigation system by aspiration, injection or is imbedded in an emission system component</li> <li>✓ If the irrigation system is installed on a property served by an <i>on-site sewage facility</i> and is connected to a potable water supply</li> </ul>
<b>Pressure vacuum breaker</b>	<ul style="list-style-type: none"> <li>✓ No <i>back-pressure</i> conditions</li> <li>✓ Installation is at least <i>12 inches above</i> any downstream piping and the highest downstream opening (measure pop-up sprinklers in the retracted position and from the top of the sprinkler)</li> </ul>
<b>Atmospheric vacuum breaker</b>	<ul style="list-style-type: none"> <li>✓ No <i>back-pressure</i></li> <li>✓ No <i>shutoff valves</i> downstream from the device</li> <li>✓ Installation is a minimum of <i>six inches above</i> downstream piping and the highest downstream opening</li> <li>✓ <i>No continuous pressure</i> on the supply side of the device for more than 12 hours in any 24 hour period</li> <li>✓ <i>Separate</i> atmospheric vacuum breaker is installed on the discharge side of each irrigation control valve</li> </ul>

- **When can a double check valve be used?**

A double check valve can be used if:

- ✓ The *local water purveyor does not prohibit* its use
- ✓ *Backpressure* could cause a reversal of the normal flow of water or *back-siphonage* conditions from reduced pressure in the system
- ✓ Test cocks are used for *testing only*

If the double check valve is installed below ground:

- ✓ Test cocks must be *plugged* (except during testing);
- ✓ Test cock plugs must be threaded, water-tight, and made of non-ferrous material;
- ✓ A *y-type strainer* must be installed on the inlet side of the double check valve;
- ✓ There must be *adequate clearance* between fill material and the bottom and sides of the double check valve to allow space for testing and repairing.

- **Is a y-type strainer required on all new irrigation system installations?**



No, a y-type strainer is only required when a double check valve backflow prevention assembly is *installed below ground*. Some local areas prohibit the use of double check valve backflow prevention devices, so you should check with your local permitting authority before installing a double check valve.

- **Pressure vacuum breakers cannot be tested; are these exceptions to the rule that requires backflow prevention devices to be checked?**

TCEQ recommends that pressure vacuum breakers be visually inspected by removing the cap and looking to see that the device is intact.

- **Where should an automatic master valve be located?**

If a master valve is used on an irrigation system connected to a potable water supply through a double check valve, pressure vacuum breaker or reduced pressure principle backflow assembly, the master valve must be installed on the *discharge* side of the backflow prevention device.

- **What should an irrigator do if a homeowner refuses to have a backflow prevention device or an isolation valve installed during a repair?**

First, the irrigator should inform the homeowner before starting a repair job that a backflow prevention device or an isolation valve might be needed during the repair. The irrigator can point to TCEQ's rules and other information (such as this Question and Answer document) to educate the homeowner about the need to protect health and conserve water. If the homeowner refuses, the irrigator should notify the water purveyor that there is no backflow prevention device or that the wrong type of backflow prevention device has been used. Ultimately, if the homeowner refuses to have a backflow prevention device or isolation valve installed, and an irrigator repairs the irrigation system without installing the backflow prevention device or isolation valve, the irrigator is violating state and, in areas with irrigation rules or ordinances, local requirements.

- **TCEQ's landscape irrigation rules are incorrect. The International Plumbing Code requires all Backflow Prevention Assembly Devices to be tested annually. Which requirements should be followed?**

The 2006 version of both the International Plumbing Code and the Uniform Plumbing Code require annual testing of *all* backflow prevention devices. This is more stringent than the Chapter 290 Public Drinking Water requirements. The Landscape Irrigation rules are consistent with the Chapter 290 rules for Public Drinking Water.

If a local government has adopted the 2006 version of the International Plumbing Code or the Uniform Plumbing code, the requirement to test all Backflow Prevention Assembly Devices annually would apply.

The Chapter 290 rules identify irrigation systems with a chemical additive as a health hazard. Irrigation systems without chemical additives are not required to be tested annually by TCEQ rules. Please see <http://info.sos.state.tx.us/fids/200805209-1.html> for additional information.

- **Should all drip irrigation systems be considered a health hazard and require an appropriate backflow prevention device?**

No, only drip irrigation systems that have drip lines that are treated with a chemical root retardant or have an added component that is chemically treated to prevent root growth is considered to be a health hazard. Some drip irrigation systems do not have these components.

- **The use of fertilizer on turf with an irrigation system constitutes a health hazard and should trigger the annual testing of the backflow prevention device, correct?**

TCEQ's Chapter 290 regulations only classify irrigation systems *with chemical additives* as a health hazard. No mention is made of the fertilizers applied to the area that is irrigated. The rule has been interpreted to mean that as long as chemicals are not added to the irrigation system, no health hazard is present, and that the only test required is when the backflow prevention device is installed.

- **I am installing an irrigation system using drip tubing that has been treated with a chemical to inhibit root growth. The manufacturer states that the chemical is being released in a small amount that is safe. What type of backflow prevention device is needed?**

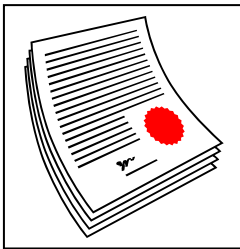
The drip tubing has a chemical additive and is considered a health hazard. Either a reduced pressure principle backflow prevention device or air gap should be used.

- **I have heard that the Foundation for Cross-Connection Control and Hydraulic Research, University of Southern California is planning to change the "blue book". The change will not allow the use of double check valves in irrigation systems, how will this affect TCEQ's requirements?**

We have not heard that the Foundation for Cross-Connection Control and Hydraulic Research, University of Southern California is imminently planning to release a new "blue book" that would prohibit the use of double check valves in irrigation systems. Some municipalities have adopted Plumbing Codes that prohibit the use of double check valves in their jurisdiction.

## X. OTHER REQUIREMENTS

- ✓ All irrigators are expected to be knowledgeable of *local requirements* (where business is being performed) related to landscape irrigation systems.
- ✓ Irrigators must *display their license certificate* in the place that they conduct irrigation business. Signs are not required at job sites where irrigation systems are installed.
- ✓ When requested by a regulatory authority, an irrigation system’s owner, or prospective owner, an irrigator must *present his/her license*.
- ✓ *Maintain archival copies* of all records given to the irrigation system owner or owner’s representative; electronic copies are acceptable. Copies must be maintained for three years.
- ✓ Make copies of records available within ten business days of a request by a regulatory authority.
- ✓ The “TCEQ statement” has been changed to include the Agency’s web site. The new statement is, “*Irrigation in Texas is regulated by the Texas Commission on Environmental Quality (TCEQ) (MC-178), P.O. Box 13087, Austin, Texas 78711-3087. TCEQ’s web site is: [www.tceq.state.tx.us](http://www.tceq.state.tx.us).*”
- ✓ The seal should be visible and legible on the original document and copies or reproductions of the original document.
- ✓ Include the date that a document is sealed.
- ✓ *Documents that require the seal:* the irrigation plan and any specifications that may accompany the irrigation plan, contracts, addenda to contracts, change orders, warranty, and the maintenance checklist.



Seal	
Irrigator’s Signature	Month, Day, Year
<b>Sample Signature Block</b>	

- **Who has jurisdiction to enforce landscape irrigation rules or ordinances?**

Situation	Authority
An irrigation system is installed in the city limits of a municipality.	Municipality
An irrigation system is installed in the extraterritorial jurisdiction of a city.	Municipality
An irrigation system is installed in a water district with landscape irrigation rules.	Water District
An irrigation system is installed in an area that does not have landscape irrigation rules or ordinances. (TCEQ does not require	TCEQ

a permit) TCEQ may also enforce local rules and ordinances.	
An irrigation system is installed in a water district that is located in the extraterritorial jurisdiction of a municipality with a landscape irrigation ordinance.	Municipality
An irrigation system is installed in a water district that has landscape irrigation rules that are more stringent than the adjacent municipality. The water district is in the extraterritorial jurisdiction of the municipality.	Municipality

- **If TCEQ has jurisdiction, how do I submit plans or obtain a permit for an irrigation system?**

TCEQ will not issue a permit or review plans prior to the installation of an irrigation system.

- **What requirements are in place for people using garden hoses to irrigate yards?**

The landscape irrigation rules apply to irrigation systems only – not garden hoses or sprinkler devices attached to garden hoses.



## **XI. IRRIGATOR-IN-CHARGE, EXEMPT BUSINESSES**

- **What is an irrigator-in-charge?**

Businesses may provide irrigation services if they employ a licensed irrigator to provide consulting services, design, installation, maintenance, alteration, repairing, or servicing of an irrigation system. An irrigator-in-charge is responsible for (and should be knowledgeable of) all permits, contracts, agreements, advertising, and other irrigation services secured and performed using the irrigator's license.

A business may employ many irrigators to perform these services but must designate *one* person as the irrigator-in-charge. An irrigator may work for numerous companies providing irrigation services but may only serve as the irrigator-in-charge at *two* businesses – his or her own company and one exempt business.

- **What are the requirements for a business owner who provides irrigation services?**

A company that provides irrigation services must ensure that all irrigation services are supervised by a licensed irrigator. The business owner must verify the validity of the licenses that belong to an irrigator, installer or irrigation technician providing irrigation services for the business. The business owner must designate an irrigator-in-charge.

- **How does an exempt business owner seal landscape irrigation documents?**

The licensed irrigator must seal all of the required landscape irrigation documents.



## **XII. CONTRACTS, INVOICES, AND WARRANTIES**

- **What is required in a contract for landscape irrigation services?**

A written contract is required for all irrigation system installations. The contract must specify the irrigator's name, license number, business address, current business telephone number(s), the date each party signed the agreement, the total agreed price, the warranty dates, and the statement: "Irrigation in Texas is regulated by the Texas Commission on Environmental Quality (TCEQ), MC-178, P.O. Box 13087, Austin, Texas 78711-3087. TCEQ's web site is: [www.tceq.state.tx.us](http://www.tceq.state.tx.us)." Contracts must include the irrigator's seal, signature, and date.

- **What is required on an invoice?**

If maintenance, alteration, repair, or service is made to an existing irrigation system, the owner should be provided a written document that identifies the materials furnished. The invoice must include the irrigator's name, license number, business address, and current business telephone number(s).

- **What is required in a warranty?**

The warranty document must specify the irrigator's name, business address, business telephone number(s) and the statement: "Irrigation in Texas is regulated by the Texas Commission on Environmental Quality (TCEQ), MC-178, P.O. Box 13087, Austin, Texas 78711-3087. TCEQ's web site is: [www.tceq.state.tx.us](http://www.tceq.state.tx.us)." The warranty must include the irrigation system's owner or owner's representative signature to confirm receipt of the warranty. A warranty is required for newly installed irrigation systems; irrigators may choose to provide a warranty for maintenance, alteration, repair, or service of a landscape irrigation system.

*Irrigators must honor the warranty.*

- **Are there requirements for estimates, proposals, or bids?**

Yes, an estimate, proposal, or bid relating to the installation or repair of an irrigation system must include the irrigator's name, license number, business address, business telephone number(s) and the statement: "Irrigation in Texas is regulated by the Texas Commission on Environmental Quality (TCEQ), MC-178, P.O. Box 13087, Austin, Texas 78711-3087. TCEQ's web site is: [www.tceq.state.tx.us](http://www.tceq.state.tx.us)."

### **XIII. HOMEOWNER INSTALLED IRRIGATION SYSTEMS**

- **What are the requirements for homeowners that install an irrigation system?**

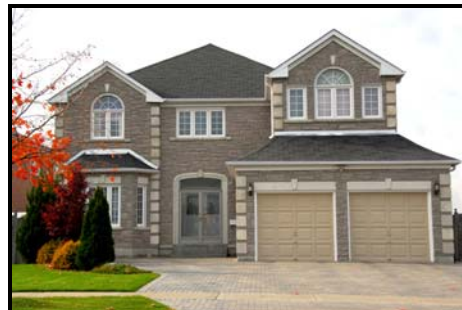
A homeowner is *not* required to be licensed to install a landscape irrigation system *if* the person is performing irrigation work at that person's home. A homeowner *must* meet all of the local requirements such as backflow prevention devices or freeze sensors as part of the installation of their irrigation system. The TCEQ Landscape Irrigation rules do require a homeowner to install an irrigation system that meets the standards for spacing, water pressure, not spraying water over impervious materials, installing a rain or moisture shut-off device (or other technology) and installing an isolation valve. The Public Drinking Water rules also require an appropriate backflow prevention device. A homeowner is *not* required to prepare a plan for the irrigation system.

- **If a homeowner installs an irrigation system using a contractor, what are the requirements?**

If a contractor is used to install the irrigation system, then the system is *not* considered to be a "homeowner installed" irrigation system and must meet all of the Chapter 344 rule requirements.

- **Can I sell a design or consult with a homeowner that wants to install their own irrigation system?**

Yes, the design would need to meet all state and local requirements. The homeowner is not required to adhere to all of the state requirements. Designing and consulting with a homeowner installing an irrigation system is an opportunity to promote water conservation by educating the homeowner. The homeowner should be advised that hiring anyone to help with installation of the irrigation system would trigger all Chapter 344 rule requirements.





## **XIV. IRRIGATION TECHNICIAN**

- **What is the status of the Irrigation Technician license?**

The test for the Irrigation Technician license is complete. Training manuals to be used for the Irrigation Technician class are in the process of review and TCEQ approval. Several training providers have submitted applications for training approval for the Irrigation Technician course. Additional training providers plan to submit applications for review as soon as an approved training manual is available. At least two training providers should be advertising training classes in the near future. It is expected that several additional training providers will be offering classes by April 2009.

*Keep in mind that the requirement to have a licensed Irrigation Technician (or a licensed irrigator) on-site does not begin until January 1, 2010.*

- **Will the Installer license be converted or grandfathered to an Irrigation Technician license?**

No, Installers (and other potential licensees) must complete a 16 hour training class that will focus on the types and characteristics of irrigation systems, installation fundamentals, and testing, maintaining, operating and troubleshooting irrigation systems. These are new subject areas that are directly related to water conservation.

- **Can the Spanish translation of the Irrigation Technician examination be completed on a faster track?**

The Spanish version should be available shortly after the test is finalized. Both examinations should be available by February 2009.

- **I install irrigation systems at new home sites and often have two or three crews working side-by-side at several homes at the same time. When the on-site requirement begins January 1, 2010, must I have an irrigator or Irrigation Technician on-site at each site?**

No, if the irrigator or Irrigation Technician is on-site and “in sight” of the work being performed, only one supervisor would be needed.



## **XV. OTHER LICENSES**

- **I have a Backflow Prevention Assembly Tester (BPAT) license. If I become a licensed Irrigation Inspector, will my BPAT license become inactive?**

No, House Bill 1656 states that a person is ineligible for an Irrigation Inspector license if the person is a licensed irrigator. This prohibition does not apply to a BPAT licensee.

- **I am a licensed irrigator and am interested in becoming an Irrigation Inspector. What do I need to do?**

You must complete the:

- Basic Irrigator Training Course (at least 32 hours of instruction),
- Backflow Prevention Assembly Tester (BPAT) Course (40 hours), and
- Water Conservation or Water Audit Course (8 hours).

See the [Curriculum Guidance for Required Courses](#) for more detailed information. You must pass a written examination. The cost of the license (valid for 3 years) is \$111.00. Finally, you must indicate whether your irrigator's license or your Irrigation Inspector's license is inactive.

- **Can I maintain my irrigator's license and an Inspector's license? If I become an Inspector, will I be required to pass a test before reactivating my irrigator's license?**

Only one of the licenses can be active. Continuing Education classes will count towards both licenses; you will need to pay the renewal fee for both licenses. As long as your license has not expired, you will not be required to pass a test before reactivating your irrigator's license.

- **When will the "short course" for Irrigation Inspectors be available?**

We are working on developing the Irrigation Inspector training course curriculum. It is expected to be completed in the summer of 2009.

- **Do I need to take different continuing education classes to maintain my irrigator's license and my Irrigation Inspector's license?**

No, your continuing education classes will be applied to both licenses.

- **Can I work part-time as an Irrigation Inspector for a Water District and part-time as an irrigator if I do not perform any work in the Water District?**

No, House Bill 1656 states that a person is ineligible for an Irrigation Inspector's license if the person engages in, has a financial interest in, or an advisory interest in an entity that sells, designs, installs, maintains, alters, repairs, or services an irrigation system; provides consulting services relating to an irrigation system; or connects an irrigation system to a private or public, raw or potable water supply system or any water supply. Only one license will be active.

- **Can an Irrigation Inspector inspect the "tie-in" to the private water line that serves an irrigation system or does a licensed plumbing inspector have to inspect that particular item?**

A TCEQ licensed Irrigation Inspector *can* inspect the "tie-in" between the backflow prevention device and the water meter as part of the irrigation system.

- **I want to change my irrigator's license status to "honorary" to avoid taking continuing education classes. What do I do?**

Please notify the TCEQ in writing that you want to change your license status to "honorary". Once your license is changed to "honorary", you can no longer perform irrigation services, will no longer pay to maintain your "active" status and will not be required to take continuing education classes.

