

§344.61. Minimum Standards for the Design of the Irrigation Plan.

- (a) An irrigator shall prepare an irrigation plan for each site where a new irrigation system will be installed. A paper or electronic copy of the irrigation plan must be on the job site at all times during the installation of the irrigation system. A drawing showing the actual installation of the system is due to each irrigation system owner after all new irrigation system installations. During the installation of the irrigation system, variances from the original plan may be authorized by the licensed irrigator if the variance from the plan does not:
 - (1) diminish the operational integrity of the irrigation system;
 - (2) violate any requirements of this chapter; and
 - (3) go unnoted in red on the irrigation plan.
- (b) The irrigation plan must include complete coverage of the area to be irrigated. If a system does not provide complete coverage of the area to be irrigated, it must be noted on the irrigation plan.
- (c) All irrigation plans used for construction must be drawn to scale. The plan must include, at a minimum, the following information:
 - (1) the irrigator's seal, signature, and date of signing;
 - (2) all major physical features and the boundaries of the areas to be watered;
 - (3) a North arrow;
 - (4) a legend;
 - (5) the zone flow measurement for each zone;
 - (6) location and type of each:
 - A controller;
 - B sensor (for example, but not limited to, rain, moisture, wind, flow, or freeze);
 - (7) location, type, and size of each:
 - A water source, such as, but not limited to a water meter and point(s) of connection;
 - B backflow prevention device;
 - C water emission device, including, but not limited to, spray heads, rotary sprinkler heads, quick-couplers, bubblers, drip, or micro-sprays;
 - D valve, including, but not limited to, zone valves, master valves, and isolation valves;
 - E pressure regulation component; and
 - F main line and lateral piping.
 - (8) the scale used; and
 - (9) the design pressure.

§344.62. Minimum Design and Installation Requirements.

- (a) No irrigation design or installation shall require the use of any component, including the water meter, in a way which exceeds the manufacturer's published performance limitations for the component.
- (b) Spacing.

- (1) The maximum spacing between emission devices must not exceed the manufacturer's published radius or spacing of the device(s). The radius or spacing is determined by referring to the manufacturer's published specifications for a specific emission device at a specific operating pressure.
 - (2) New irrigation systems shall not utilize above-ground spray emission devices in landscapes that are less than 48 inches not including the impervious surfaces in either length or width and which contain impervious pedestrian or vehicular traffic surfaces along two or more perimeters. If pop-up sprays or rotary sprinkler heads are used in a new irrigation system, the sprinkler heads must direct flow away from any adjacent surface and shall not be installed closer than four inches from a hardscape, such as, but not limited to, a building foundation, fence, concrete, asphalt, pavers, or stones set with mortar.
 - (3) 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.
- (c) Water pressure. Emission devices must be installed to operate at the minimum and not above the maximum sprinkler head pressure as published by the manufacturer for the nozzle and head spacing that is used. Methods to achieve the water pressure requirements include, but are not limited to, flow control valves, a pressure regulator, or pressure compensating spray heads.
 - (d) Piping. Piping in irrigation systems must be designed and installed so that the flow of water in the pipe will not exceed a velocity of five feet per second for polyvinyl chloride (PVC) pipe.
 - (e) Irrigation Zones. Irrigation systems shall have separate zones based on plant material type, microclimate factors, topographic features, soil conditions, and hydrological requirements.
 - (f) Matched precipitation rate. Zones must be designed and installed so that all of the emission devices in that zone irrigate at the same precipitation rate.
 - (g) Irrigation systems shall not spray water over surfaces made of concrete, asphalt, brick, wood, stones set with mortar, or any other impervious material, such as, but not limited to, walls, fences, sidewalks, streets, etc.
 - (h) Master valve. When provided, a master valve shall be installed on the discharge side of the backflow prevention device on all new installations.
 - (i) PVC pipe primer solvent. All new irrigation systems that are installed using PVC pipe and fittings shall be primed with a colored primer prior to applying the PVC cement in accordance with the Uniform Plumbing Code (Section 316) or the International Plumbing Code (Section 605).
 - (j) Rain or moisture shut-off devices or other technology. All new automatically controlled irrigation systems must include sensors or other technology designed to inhibit or interrupt operation of the irrigation system during periods of moisture or rainfall. Rain or moisture shut-off technology must be installed according to the manufacturer's published recommendations. Repairs to existing automatic irrigation systems that require replacement of

an existing controller must include a sensor or other technology designed to inhibit or interrupt operation of the irrigation system during periods of moisture or rainfall. El Paso, Hudspeth, Culberson, Jeff Davis, Presidio, Brewster, Terrell, Loving, Winkler, Ward, Reeves, Ector, Crane and Pecos are excluded from this requirement.

- (k) Isolation valve. All new irrigation systems must include an isolation valve between the water meter and the backflow prevention device.
- (l) Depth coverage of piping. Piping in all irrigation systems must be installed according to the manufacturer's published specifications for depth coverage of piping.
 - (1) If the manufacturer has not published specifications for depth coverage of piping, the piping must be installed to provide minimum depth coverage of six inches of select backfill, between the top of the pipe and the natural grade of the topsoil. All portions of the irrigation system that fail to meet this standard must be noted on the irrigation plan. If the area being irrigated has rock at a depth of six inches or less, select backfill may be mounded over the pipe. Mounding must be noted on the irrigation plan and discussed with the irrigation system owner or owner's representative to address any safety issues.
 - (2) If a utility, man-made structure, or roots create an unavoidable obstacle, which makes the six-inch depth coverage requirement impractical, the piping shall be installed to provide a minimum of two inches of select backfill between the top of the pipe and the natural grade of the topsoil.
 - (3) All trenches and holes created during installation of an irrigation system must be backfilled and compacted to the original grade.
- (m) Wiring irrigation systems.
 - (1) Underground electrical wiring used to connect an automatic controller to any electrical component of the irrigation system must be listed by Underwriters Laboratories as acceptable for burial underground.
 - (2) Electrical wiring that connects any electrical components of an irrigation system must be sized according to the manufacturer's recommendation.
 - (3) Electrical wire splices which may be exposed to moisture must be waterproof as certified by the wire splice manufacturer.
 - (4) Underground electrical wiring that connects an automatic controller to any electrical component of the irrigation system must be buried with a minimum of six inches of select backfill.
- (n) Water contained within the piping of an irrigation system is deemed to be non-potable. No drinking or domestic water usage, such as, but not limited to, filling swimming pools or decorative fountains, shall be connected to an irrigation system. If a hose bib (an outdoor water faucet that has hose threads on the spout) is connected to an irrigation system for the purpose of providing supplemental water to an area, the hose bib must be installed using a quick coupler key on a quick coupler installed in a covered purple valve box and the hose bib and any hoses connected to the bib must be labeled "non-potable,

not safe for drinking." An isolation valve must be installed upstream of a quick coupler connecting a hose bib to an irrigation system.

- (o) Beginning January 1, 2010, either a licensed irrigator or a licensed irrigation technician shall be on-site at all times while the landscape irrigation system is being installed. When an irrigator is not on-site, the irrigator shall be responsible for ensuring that a licensed irrigation technician is on-site to supervise the installation of the irrigation system.

§344.63.Completion of Irrigation System Installation.

Upon completion of the irrigation system, the irrigator or irrigation technician who provided supervision for the on-site installation shall be required to complete four items:

- (1) a final "walk through" with the irrigation system's owner or the owner's representative to explain the operation of the system;
- (2) The maintenance checklist on which the irrigator or irrigation technician shall obtain the signature of the irrigation system's owner or owner's representative and shall sign, date, and seal the checklist. If the irrigation system's owner or owner's representative is unwilling or unable to sign the maintenance checklist, the irrigator shall note the time and date of the refusal on the irrigation system's owner or owner's representative's signature line. The irrigation system owner or owner's representative will be given the original maintenance checklist and a duplicate copy of the maintenance checklist shall be maintained by the irrigator. The items on the maintenance checklist shall include but are not limited to:
 - A the manufacturer's manual for the automatic controller, if the system is automatic;
 - B a seasonal (spring, summer, fall, winter) watering schedule based on either current/real time evapotranspiration or monthly historical reference evapotranspiration (historical ET) data, monthly effective rainfall estimates, plant landscape coefficient factors, and site factors;
 - C a list of components, such as the nozzle, or pump filters, and other such components; that require maintenance and the recommended frequency for the service; and
 - D the 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."
- (3) A permanent sticker which contains the irrigator's name, license number, company name, telephone number and the dates of the warranty period shall be affixed to each automatic controller installed by the irrigator or irrigation technician. If the irrigation system is manual, the sticker shall be affixed to the original maintenance

checklist. The information contained on the sticker must be printed with waterproof ink and include:

- (4) The irrigation plan indicating the actual installation of the system must be provided to the irrigation system's owner or owner representative.

§344.64. Maintenance, Alteration, Repair, or Service of Irrigation Systems.

- (a) The irrigator is responsible for all work that the irrigator performed during the maintenance, alteration, repair, or service of an irrigation system during the warranty period. The irrigator or business owner is not responsible for the professional negligence of any other irrigator who subsequently conducts any irrigation service on the same irrigation system.
- (b) All trenches and holes created during the maintenance, alteration, repair, or service of an irrigation system must be returned to the original grade with compacted select backfill.
- (c) Colored PVC pipe primer solvent must be used on all pipes and fittings used in the maintenance, alteration, repair, or service of an irrigation system in accordance with the Uniform Plumbing Code (Section 316) or the International Plumbing Code (Section 605).
- (d) When maintenance, alteration, repair or service of an irrigation system involves excavation work at the water meter or backflow prevention device, an isolation valve shall be installed, if an isolation valve is not present.

§344.65. Reclaimed Water.

Reclaimed water may be utilized in landscape irrigation systems if:

- (1) there is no direct contact with edible crops, unless the crop is pasteurized before consumption;
- (2) the irrigation system does not spray water across property lines that do not belong to the irrigation system's owner;
- (3) the irrigation system is installed using purple components;
- (4) the domestic potable water line is connected using an air gap or a reduced pressure principle backflow prevention device, in accordance with §290.47(i) of this title (relating to Appendices);
- (5) a minimum of an eight inch by eight inch sign, in English and Spanish, is prominently posted on/in the area that is being irrigated, that reads, "RECLAIMED WATER - DO NOT DRINK" and "AGUA DE RECUPERACIÓN - NO BEBER"; and
- (6) backflow prevention on the reclaimed water supply line shall be in accordance with the regulations of the water purveyor.

SUBCHAPTER G. ADVERTISING, CONTRACT, AND WARRANTY

30 TAC §§344.70 - 344.72

§344.70. Advertisement.

- (a) All vehicles used in the performance of irrigation installation, maintenance, alteration, repair, or service must display the irrigator's license number in the form of "LI _____" in a contrasting color of block letters at least two inches high, on both sides of the vehicle.
- (b) All forms of written and electronic advertisements for irrigation services must display the irrigator's license number in the form of "LI _____." Any form of advertisement, including business cards, and estimates which displays an entity's or individual's name other than that of the licensed irrigator must also display the name of the licensed irrigator and the licensed irrigator's license number. Trailers that advertise irrigation services must display the irrigator's license number.
- (c) The name, mailing address, and telephone number of the commission must be prominently displayed on a legible sign and displayed in plain view for the purpose of addressing complaints at the permanent structure where irrigation business is primarily conducted and irrigation records are kept.

§344.71. Contracts.

- (a) All contracts to install an irrigation system must be in writing and signed by each party and must specify the irrigator's name, license number, business address, current business telephone numbers, the date that each party signed the agreement, the total agreed price, and must contain 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 website is: www.tceq.state.tx.us." All contracts must include the irrigator's seal, signature, and date.
- (b) All written estimates, proposals, bids, and invoices relating to the installation or repair of an irrigation system(s) must include the irrigator's name, license number, business address, current 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."
- (c) An individual who agrees by contract to provide irrigation services as defined in §344.30 of this title (relating to License Required) shall hold an irrigator license issued under Chapter 30 of this title (relating to Occupational Licenses and Registrations) unless the contract is a pass-through contract as defined in §344.1(36) of this title (relating to Definitions). If a pass-through contract includes irrigation services, then the irrigation portion of the contract can only be performed by a licensed irrigator. If an irrigator installs a system pursuant to a pass-through contract, the irrigator shall still be responsible for providing the irrigation system's owner or through contract, the irrigator shall still be

responsible for providing the irrigation system's owner or owner's representative a copy of the warranty and all other documents required under this chapter. A pass-through contract must identify by name and license number the irrigator that will perform the work and must provide a mechanism for contacting the irrigator for irrigation system warranty work.

(d) The contract must include the dates that the warranty is valid.

§344.72. Warranties.

- (a) On all installations of new irrigation systems, an irrigator shall present the irrigation system's owner or owner's representative with a written warranty covering materials and labor furnished in the new installation of the irrigation system. The irrigator shall be responsible for adhering to terms of the warranty. If the irrigator's warranty is less than the manufacturer's warranty for the system components, then the irrigator shall provide the irrigation system's owner or the owner's representative with applicable information regarding the manufacturer's warranty period. The warranty must include the irrigator's seal, signature, and date. If the warranty is part of an irrigator's contract, a separate warranty document is not required.
- (b) An irrigator's written warranty on new irrigation systems must specify the irrigator's name, business address, and business telephone number(s), must contain the signature of the irrigation system's owner or owner's representative confirming receipt of the warranty and must include the statement: "Irrigation in Texas is regulated by the Texas Commission on Environmental Quality (TCEQ), MC-178, P.O. Box 130897, Austin, Texas 78711-3087. TCEQ's website is: www.tceq.state.tx.us."
- (c) On all maintenance, alterations, repairs, or service to existing irrigation systems, an irrigator shall present the irrigation system's owner or owner's representative a written document that identifies the materials furnished in the maintenance, alteration, repair, or service. If a warranty is provided, the irrigator shall abide by the terms. The warranty document must include the irrigator's name and business contact information.

SUBCHAPTER H. IRRIGATOR ADVISORY COUNCIL

30 TAC §344.80

STATUTORY AUTHORITY

§344.80. Irrigator Advisory Council.

- (a) The Irrigator Advisory Council is composed of nine members that are appointed by the commission. Appointments to the council will be made without regard to race, creed, sex, religion, or national origin of the appointees. The purpose of the council is to give the commission the benefit of the members' collective business, environmental, and technical expertise and experience with respect to matters relating to landscape irrigation. The

council has no executive or administrative powers or duties with respect to the operation of the commission, and all such powers and duties rest solely with the commission.

- (b) Six members of the council must be licensed irrigators who are residents of the State of Texas, experienced in the irrigation business, and familiar with irrigation methods and techniques.
- (c) Three members must be representatives of the public. A person is not eligible for appointment as a public member if the person or the person's spouse:
 - (1) is licensed by an occupational regulatory agency in the field of irrigation; or
 - (2) is employed by, participates in the management of, or has, other than as a consumer, a financial interest in a business entity or other organization related to the field of irrigation.
- (d) It is grounds for removal from the council by the commission if a member:
 - (1) does not meet, at the time of the appointment, the qualifications that are required by subsection (b) or (c) of this section for appointment to the council;
 - (2) does not maintain, during service on the council, the qualifications that are required by subsection (b) or (c) of this section for appointment to the council; or
 - (3) misses three consecutive regularly scheduled meetings or more than half of all the regularly scheduled meetings in a one-year period.
- (e) The members of the council serve six-year terms, with the terms expiring February 1 of each odd-numbered year.
- (f) A member of the council is entitled to per diem as appropriated by the Texas Legislature for each day that the member engages in the business of the council. A member is entitled to reimbursement for travel expenses, including expenses for meals and lodging, as provided for in the General Appropriations Act.
- (g) The council shall hold meetings at the call of the commission or chairman.
- (h) A majority of the council constitutes a quorum for conducting business.
- (i) The council will elect a chairman by a majority vote.