

# CAN I TEST A BACKFLOW PREVENTION ASSEMBLY LOCATED ON A TEXAS WATER-BASED FIRE SUPPRESSION SYSTEM?

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## *Introduction*

I am not an attorney. The information presented is not legal advice. The information is true and correct based upon my research and is presented to assist backflow assembly testers and individuals involved with administering cross connection control programs.

Research discovered numerous backflow prevention assembly testers holding a RME-U issued by the Texas Department of Insurance State Fire Marshal's Office. These individuals are often shown on published list of approved testers. Some of these individuals are employees of an approved fire sprinkler company and some are not. A search of the TDI SFMO website failed to return several company names shown on published list of "approved testers".

A search of the TDI SFMO website returned 18 companies with backflow in their name. All but one of these companies are listed as an SCR-U.

City # 1 has 195 registered testers, 71 fire testers. 22 are SCR-U companies.

City # 2 has 187 testers, 90 fire testers. 25 are SCR-U companies.

Obtaining a RME from the TDI SFMO does not allow anyone to be engaged in the installation, maintenance or service of a fire sprinkler system in Texas. Companies engaged in fire sprinkler installation, service and maintenance must have a registration certificate issued by the TDI SFMO and employee at least one individual with the appropriate type of RME license. Fire sprinkler companies receive registration certificates, individuals receive licenses.

Possessing a SCR does not give the company authority to test any and all backflow prevention assemblies on fire sprinkler systems. The SCR defines the type of fire sprinkler system a company can install, service or maintain.

The Texas Commission on Environmental Quality requires fireline testers to be permanently employed by an approved fireline contractor. The Texas Department of Insurance's State Fire Marshal's Office requires that any person performing maintenance on firelines must be employed by an Approved Fireline Contractor.<sup>1</sup>

This document assumes you are a backflow prevention assembly tester or involved with a cross connection control program. Therefore I will not go into the requirements to become a tester nor will I discuss who can install or repair backflow prevention assemblies (BPA). This document is devoted to who can test a backflow prevention assembly located on a water-based fire sprinkler system in Texas.

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<sup>1</sup> TAC Chapter 290.44(h)4(A)(ii)

## ***Backflow Assembly Testing in Texas***

Backflow testing in Texas is regulated by several governmental agencies. Persons involved in backflow testing and cross connection control programs must be knowledgeable in the specific requirements of each regulatory entity. At times this can be overwhelming to the backflow prevention assembly tester (BPAT) and others involved with cross connection control programs.

- Texas Commission on Environmental Quality (TCEQ)
  - Backflow prevention assembly tester (BPAT)
- Texas State Board of Plumbing Examiners (TSBPE)
  - Plumbers
- Texas Department of Insurance State Fire Marshal's Office (TDI SFMO)
  - Fire sprinkler responsible managing employees (RME)
  - Registration certificates to fire sprinkler companies (SCR)
- Texas Department of State Health Services (TDSH)
- Local municipalities

### ***Who can test a BPA on water-based fire sprinkler system?***

TCEQ rules state only a backflow prevention assembly tester who is permanently employed by an approved fireline contractor may test and repair assemblies on firelines.<sup>2</sup>

### ***What is an approved fireline contractor?***

The TDI SFMO regulates and issues certificates of registration to fire sprinkler companies (fireline contractors).<sup>3</sup>

The term, fire protection sprinkler system contractor means an individual or organization that offers to undertake, represents itself as being able to undertake, or undertakes the plan, sale, installation, maintenance, or servicing of a fire protection sprinkler system.<sup>4</sup>

TDI SFMO requires fire sprinkler companies to have a registration certificate. The type of fire sprinkler systems planned, sold, installed, maintained, or serviced determines the type of registration certificate (SCR) the company must obtain. In order for a company to obtain a SCR, the company must have at least one RME<sup>5</sup>. An individual holding a RME is not a fire sprinkler company.

TDI SFMO licenses individuals as a RME. Each fire sprinkler company must have at least one full time RME. The RME must be an employee or the owner of the company.

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<sup>2</sup> TAC Chapter 290.44(h)(4)(A)(ii) Backflow prevention assembly testers may test and repair assemblies on firelines only if they are permanently employed by an approved fireline contractor.

<sup>3</sup> Texas Insurance Code section 6003.001

<sup>4</sup> Ibid.

<sup>5</sup> Texas Insurance Code 6003.153(a)

### ***Adopted Standards:***

TDI SFMO has adopted by reference and in its entirety the National Fire Protection Association (NFPA) 25 2014 Edition<sup>6</sup>, Standard for the Inspection, Testing and Maintenance of Water-Based Fire Protection Systems. The requirements for testing backflow prevention assemblies located on water-based fire sprinkler systems are found in NFPA 25 2014 Edition.

NFPA does not require a backflow prevention assembly to be installed on any water based fire sprinkler system.<sup>7</sup> This requirement is left to the water purveyor. NFPA does have specific requirements that must be followed when a backflow prevention assembly is installed as part of a fire protection system.<sup>8</sup>

### ***RME License***

- **RME-G**  
An RME-General may supervise the installation of any fire protection sprinkler system including one-and two-family dwellings.<sup>9</sup>
- **RME-D**  
An RME-Dwelling may only supervise the installation of a fire protection sprinkler system in one-and two-family dwellings.<sup>10</sup>
- **RME-U**  
An RME-Underground Fire Main may only supervise the installation of an assembly of underground piping or conduits that conveys water with or without other agents and used as an integral part of any type of fire protection sprinkler system.<sup>11</sup>
- **RME-I**  
The RME-I will not be discussed since a person holding this license cannot obtain a SCR.<sup>12</sup>

### ***SCR Registration Certificates***

- **SCR-G**  
General--This certificate permits a fire protection sprinkler system contractor to conduct the planning, sales, installation, maintenance, or servicing of any fire protection sprinkler system or any part of such a system.<sup>13</sup>

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<sup>6</sup> TAC Chapter 28 34.770

<sup>7</sup> NFPA 25 - 2014 edition page 400 & 401

<sup>8</sup> NFPA 25 - 2014 edition page 401

<sup>9</sup> TAC Chapter 28 34.716(a)(1)

<sup>10</sup> TAC Chapter 28 34.716(a)(2)

<sup>11</sup> TAC Chapter 28 34.716(a)(3)

<sup>12</sup> TAC Chapter 28 34.716(c)

<sup>13</sup> TAC Chapter 28 34.710(i)(1)

- **SCR-D**  
Dwelling--This certificate permits the fire protection sprinkler system contractor to conduct the planning, sales, installation, maintenance, or servicing of a one -or two-family dwelling fire protection sprinkler system or any part of such a system.<sup>14</sup>
- **SCR-U**  
Underground Fire Main--This certificate permits a fire protection sprinkler system contractor to conduct the sales, installation, maintenance, or servicing, but not the planning, of an assembly of underground piping or conduits that conveys water with or without other agents, used as an integral part of any type of fire protection sprinkler system.<sup>15</sup>

Each fire protection sprinkler system contractor must employ at least one licensed responsible managing employee on a full-time basis.<sup>16</sup>

Companies holding a SCR-G can test any backflow prevention assembly installed on a water-based fire sprinkler system.

Companies holding a SCR-D can test backflow prevention assembly installed on a water-based fire sprinkler system installed in a one or two family dwelling only.

Companies holding a SCR-U can test backflow prevention assembly installed on a water-based fire sprinkler system if the backflow prevention assembly is installed in an assembly of underground piping or conduits. TDI SFMO has determined this to mean outside of a building and underground.<sup>17</sup>

### ***TDI SFMO Requirements***

A fire protection sprinkler system is an assembly of underground or overhead piping<sup>18</sup> that is used to extinguish, control or contain fire<sup>19</sup> or any part of a fire protection sprinkler system<sup>20</sup>.

TDI SFMO requires that any person performing maintenance on firelines must be employed by an approved fireline contractor. Unless the individual or organization holds a registration certificate issued by the department, an individual or organization may not plan, sell, install, maintain, or service a fire protection sprinkler system.<sup>21</sup>

A BPAT permanently employed by a company possessing a SCR-G can test all backflow prevention assemblies located on firelines only if the company where they are employed complies with the requirements of NFPA 25.

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<sup>14</sup> TAC Chapter 28 34.710(i)(2)

<sup>15</sup> TAC Chapter 28 34.710(i)(3)

<sup>16</sup> Texas Insurance Code 6003.153(a)

<sup>17</sup> Emails from TDI SFMO April 2018

<sup>18</sup> Texas Insurance Code 6003.001(1)

<sup>19</sup> Texas Insurance Code 6003.001(1)(A)

<sup>20</sup> Texas Insurance Code 6003.001(1)(B)

<sup>21</sup> Texas Insurance Code 6003.151(a)

A BPAT permanently employed by a company possessing a SCR-D can only test backflow prevention assemblies located on firelines supplying one & two dwelling units only if the company where they are employed complies with the requirements of NFPA 25.

A BPAT permanently employed by a company possessing a SCR-U can only test backflow prevention assemblies located on firelines supplying an assembly of underground piping only if the company where they are employed complies with the requirements of NFPA 25.

A company possessing a SCR-U cannot perform any installation, maintenance, or servicing on any part of the interior pipe, fittings, valve, alarms or controls. The SCR-U allows the company to conduct the sales, installation, maintenance, or servicing of an assembly of underground piping or conduits that conveys water with or without other agents, used as an integral part of any type of fire protection sprinkler system. The RME-U is limited to supervising the installation of an assembly of underground piping.<sup>22</sup>

A BPAT does not have to be a RME to test a fire sprinkler backflow prevention assembly. The BPAT must be permanently employed by an approved fireline contractor. An approved fireline contractor must have a SCR and at least one full time RME.

### ***Criminal Penalty***

If a company possessing a SCR-U performs any installation, maintenance, or servicing on any portion of a fire sprinkler system other than the assembly of underground piping they are most likely guilty of planning, selling, installing, maintaining, or servicing a fire protection sprinkler system in violation of Sec. 6003.251 of the Texas Insurance Code and/or the rules contained in TAC Title 28 Chapter 34. An offense is a Class B misdemeanor.<sup>23</sup>

### ***How do you determine the type of SCR a company operates under?***

Conduct a search on the TDI SFMO website.  
<https://appscenter.tdi.texas.gov/reports/p/sfmo>

You can search for companies by name or license number, SCR. If a company is not current with their insurance filing or any other document required by the SFMO, they will not show in the search.

An Individual search can be by name or license number.

If the company doesn't appear in the search, contact the TDI SFMO before you allow employees of the company to test fire sprinkler backflow prevention assemblies. The company is not an approved fireline contractor.

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<sup>22</sup> TAC Chapter 28 34.716(a)(3)

<sup>23</sup> Texas Insurance Code section Sec. 6003.301

A BPAT must permanently employed by an approved fireline contractor in order to test a fire sprinkler backflow prevention assembly.

A company may not subcontract with an unlicensed company to allow the unregistered company as an independent contractor to perform any act of a fire protection sprinkler contractor.<sup>24</sup>

### ***NFPA 25 – 2014 Edition Requirements***

- A main drain test<sup>25</sup> shall be conducted any time the control valve<sup>26</sup> is closed and reopened at system riser.
- After any testing an inspection shall be made to insure all isolation valves are in the normal open position.<sup>27</sup>
- All backflow preventers installed in fire protection system piping shall be exercised annually by conducting a forward flow test at a minimum flow rate of the system demand.<sup>28</sup>
- Notification is required before the water supply serving a fire sprinkler system can be turned off.
- This is not an inclusive list of the requirements before, during and after a backflow prevention assembly on a fire sprinkler system is tested.

### ***Resources***

- NFPA 25 – 2014 Edition
- TCEQ RG-345
- Texas Insurance Code Chapter 6003
- Texas Administrative Code Title 28 Chapter 34.700
- Texas Administrative Code Title 30 Chapter 290.44(h)

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<sup>24</sup> TAC Chapter 28 34.710(a)

<sup>25</sup> NFPA 25 - 2014 edition 13.3.3.4

<sup>26</sup> NFPA 25 – 2014 13.5.1 A valve controlling flow of water to water-based fire protection systems.

<sup>27</sup> NFPA 25 - 2014 13.6.1.3

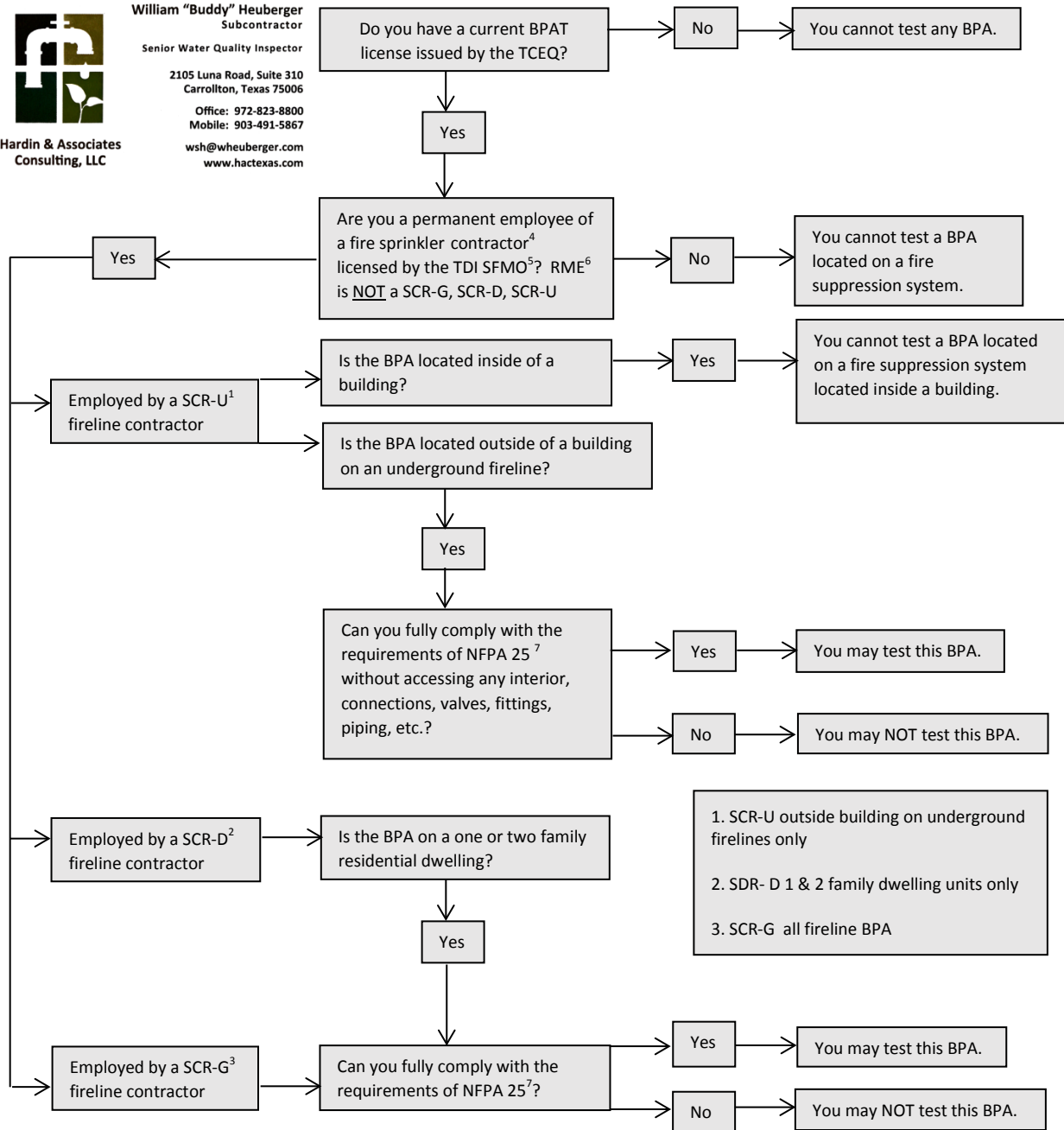
<sup>28</sup> NFPA 25 - 2014 13.6.2.1

# Can I Test A Backflow Prevention Assembly on a Fire Suppression System?



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<sup>1</sup> Sprinkler Certificate of Registration—Underground (SCR-U). Each firm engaged in the business of selling, installing, maintaining, servicing, or certifying underground water supply piping to any and all types of fire protection sprinkler systems must have an SCR-U.

<sup>2</sup> Sprinkler Certificate of Registration—Dwelling (SCR-D). Each firm engaged in the business of planning, selling, installing, maintaining, servicing and certifying a one- or two-family dwelling fire protection sprinkler systems must have an SCR-D.

<sup>3</sup> Sprinkler Certificate of Registration—General (SCR-G). Firms engaged in the business of planning, selling, installing, maintaining, certifying or servicing fire protection sprinkler systems. BPAT permanently employed by a SCR-G can test all backflow prevention assemblies.

<sup>4</sup> TAC Chapter 290.44(h)(4)(A)(ii) Backflow prevention assembly testers may test and repair assemblies on firelines only if they are permanently employed by an approved fireline contractor.

<sup>5</sup> Texas Department of Insurance State Fire Marshal's Office.

<sup>6</sup> Each company (SCR) must have a RME. Companies receive SCR, individuals receive RME. Each fireline contractor must have a SCR. RME is not a substitute or replacement for a SCR.

<sup>7</sup> NFPA 25 2014 Edition

13.3.3.4 A main drain test shall be conducted any time the control valve is closed and reopened at system riser

13.5.1 A valve controlling flow of water to water-based fire protection systems.

13.6.1.3 After any testing ----an inspection shall be made to insure ---- all isolation valves are in the normal open position.

13.6.2.1 All backflow preventers installed in fire protection system piping shall be exercised annually by conducting a forward flow test at a minimum flow rate of the system demand.

See NFPA 25 for additional testing requirements.