

# **RESIDENTIAL FIRE SPRINKLER ACTIVATION REPORT**



**A DATA BASE OF RESIDENTIAL FIRE  
SPRINKLER ACTIVATIONS**

**JANUARY 1, 2003 – JUNE 30, 2007**

# RESIDENTIAL FIRE SPRINKLER ACTIVATION REPORT

**A data base of Residential Fire  
Sprinkler Activations,  
State Regulations,  
&  
Local Fire Sprinkler Ordinances**

**January 1, 2003 – June 30, 2007**

**United States Fire Administration  
National Association of State Fire Marshals  
National Institute of Standards and Technology  
Residential Fire Safety Institute**

**The Residential Fire Sprinkler Activation project, completed by the National Association of State Fire Marshals (NASFM) & The Residential Fire Sprinkler Institute, (RFSI) was made possible by a grant from the United States Fire Administration (EME-2006-GR-0288).**

**The purpose was to gather current and relevant data pertaining to the activation of residential fire sprinklers, information necessary to assess the performance of these systems in real-life, non-laboratory conditions.**

**It should be clearly noted that this data collection system is the only system to collect detailed fire sprinkler activation information. When analyzed, this data can provide a clear and detailed justification for the growing presence and effectiveness of residential fire sprinklers.**

**The project was initiated and system oversight provided by the following:**

**Larry Maruskin, U.S. Fire Administration**

**Daniel Madrzykowski, National Institute of Standards and Technology**

**Dan Carlson, NASFM Project Manager**

**Roy Marshall, Executive Director, RFSI**

**Frank McGarry, NASFM Sr. Policy Manager**

**The reporting system is an on-line, web-based system, located on the NASFM web site ([www.firemarshals.org](http://www.firemarshals.org)), and consists of a forced-choice, drop-down menu that includes 18 data fields, with menu choices as listed below:**

- 1. Type of residential occupancy (apartment, 1 or 2 family residents, condo, townhouse or dormitory).**
- 2. Number of stories (1, 2, 3, 4, 5, 6, more than 6 or unknown).**
- 3. Story of origin (1, 2, 3, 4, 5, 6, more than 6, basement or unknown).**
- 4. Room of origin (kitchen, bedroom, living room, garage, bathroom, family room, work room, basement, dining room, other or unknown).**
- 5. Area of room of origin (0-100- sq ft, 101-150 sq ft, 151-200 sq ft, 201-250 sq ft, 251-300 sq ft, 301-350 sq ft, 351-400 sq ft).**
- 6. Width of room of origin (1 thru 20 feet in 1 foot increments or, unknown).**
- 7. Length of room of origin (1 thru 20 feet in 1 foot increments or, unknown).**
- 8. Number of sprinkler heads in room of origin (1, 2, 3, 4, 5 or more or unknown).**
- 9. Number of sprinkler heads activated (1, 2, 3, 4, 5 or more or unknown).**

- 10. Type of sprinkler head activated #1 (exposed, concealed or unknown).**
- 11. Type of sprinkler head activated #2 (fast response, standard or unknown).**
- 12. Type of sprinkler head activated #3 (pendent, sidewall or unknown).**
- 13. Reason for activation (fire, system malfunction, vandalism or unknown).**
- 14. Smoke detector present (yes, no or unknown).**
- 15. Did smoke detector operate (yes, no or unknown).**
- 16. Estimated number of lives saved by activation (numerical amount to be entered).**
- 17. Incident dollar loss range (0-1,000, 1,001-5,000, 5,001-10,000, 10,001-50,000, 50,001-100,000, 100,001-250,000, more than 250,000 or unknown).**
- 18. Estimated range of dollars saved by activation (0-1,000, 1,001-5,000, 5,001-10,000, 10,001-50,000, 50,001-100,000, 100,001-250,000, more than 250,000 or unknown).**

**PLEASE TAKE NOTE!**

***THROUGHOUT THIS REPORT THE “NA” FIELD WAS AN OPTION TO USERS AND WAS APPLIED IN SOME CASES AS “NOT AVAILABLE,” IN OTHERS AS “NOT APPLICABLE,” AND IN OTHERS AS “UNKNOWN.”***

***THE “NA” SELECTION WAS ALSO USED BY SOME REPORTING OFFICIALS IN FIELDS IN WHICH THE REPORT CALLED FOR AN OPINION OR ESTIMATE, SUCH AS LIVES AND DOLLAR LOSS AVERTED BY SPRINKLER ACTIVATION. THIS ACCOUNTS FOR THE HIGH PERCENTAGE OF “NA” IN CERTAIN CATEGORIES.***

**Any fire department experiencing a residential fire sprinkler activation was invited to participate. Because it was apparent that the most activations, and, therefore, the greatest amount of data, would come from areas having the largest number of residential sprinklers, efforts to solicit project participants were focused primarily on political subdivisions having residential fire sprinkler ordinances.**

**The Residential Fire Safety Institute’s ([www.firesafehome.org](http://www.firesafehome.org)) listing of communities with sprinkler ordinances was used for this purpose, with assistance in identifying additional subdivisions provided by the National Association of State Fire Marshals, the National Fire Protection Association, the International Association of Fire Chiefs, and numerous associations of state fire prevention officers. Without their assistance in identifying users, this project could not have been successful.**

**In this phase of the project (2006-2007) 89 additional fire departments participated in the reporting of more than 150**

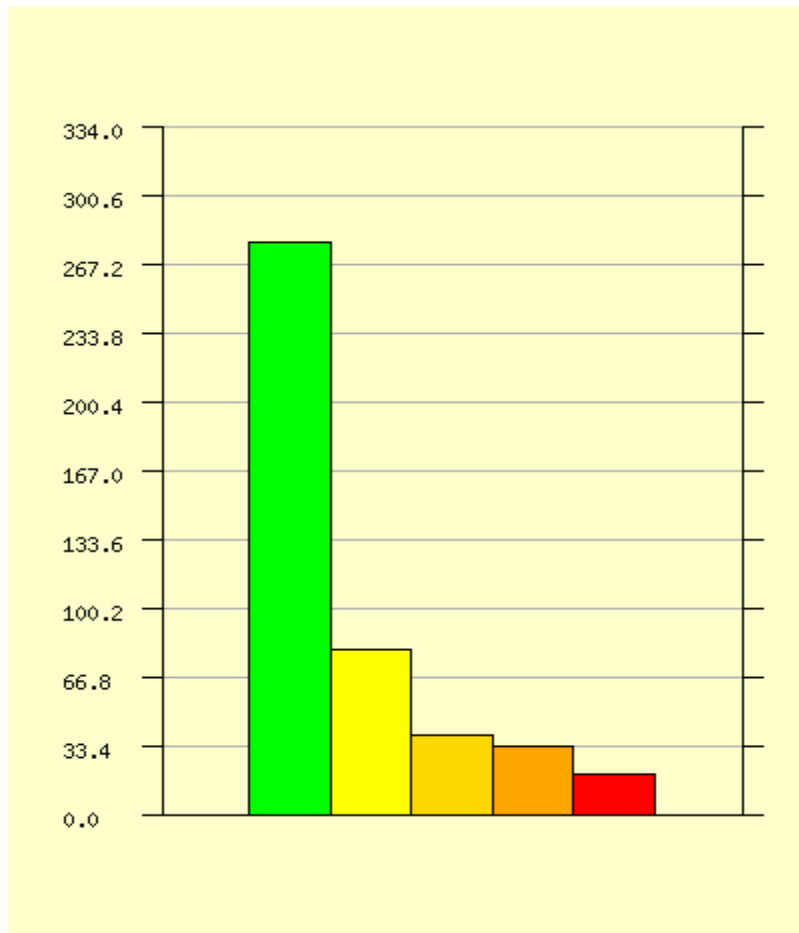
**additional activations when compared to the earlier phase of the project 2003-2005.**

**The following graphs depict the data gathered from January 1, 2003 through August 31, 2007. While these graphs represent the compilation of all 556 incidents, the program is designed to enable each user and each state to obtain individual or specialized reports of incidents organized by state, or by any of the data elements captured by the system.**

**The initial grant was extended for a period of 1 year to continue gathering residential sprinkler activations to expand the base of data collected. That base can now be used to identify what information is documented and retrievable and what is not from fire department records. With the knowledge gained from the project, we can now modify the database to make the data entering process more user friendly resulting in increased reported activations.**

## TYPE OF RESIDENTIAL OCCUPANCY

This category asks for the type of residential occupancy of the fire/incident. Choices for the collected data were apartment, 1 or 2 family (stand alone), condo's, townhouses or N/A. As the project was searching for permanent housing incidents, hotel/motel data was not solicited as that is regarded as temporary/transient type occupancies.



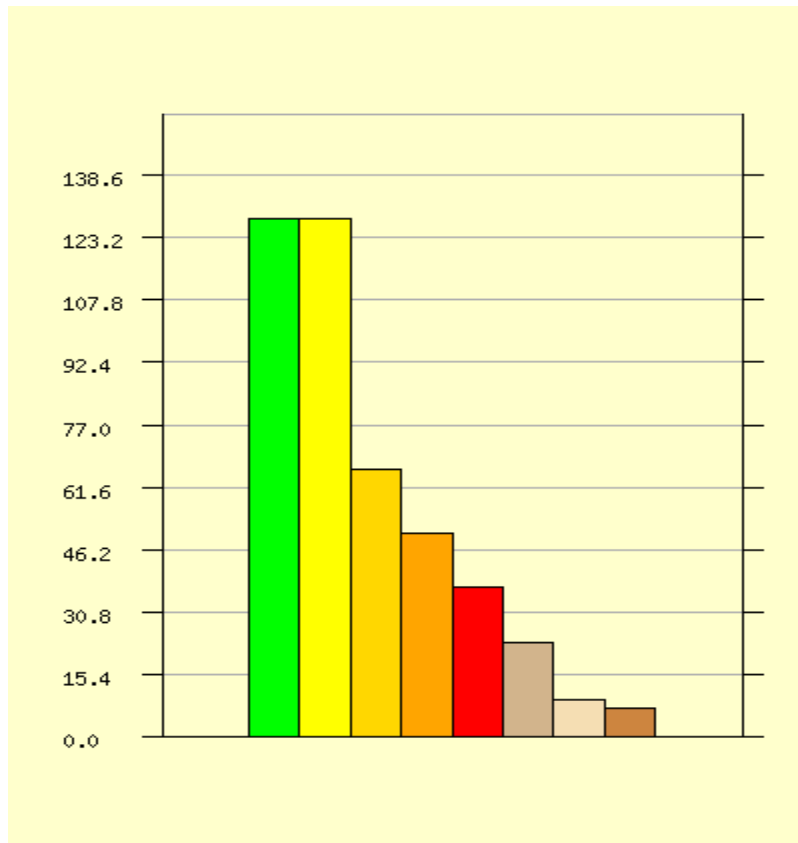
**Type of Residential Occupancy**

Legend	Description/Value	Count	Percentage
<span style="color: green;">■</span>	Apartment	278	62.1%
<span style="color: yellow;">■</span>	1 or 2 family (stand alone)	80	17.9%
<span style="color: orange;">■</span>	Condo	38	8.5%

<span style="color: orange;">■</span>	Townhouse	33	7.4%
<span style="color: red;">■</span>	N/A	19	4.2%


### NUMBER OF STORIES

This category indicates the number of stories (levels) the occupancy had starting at ground level.



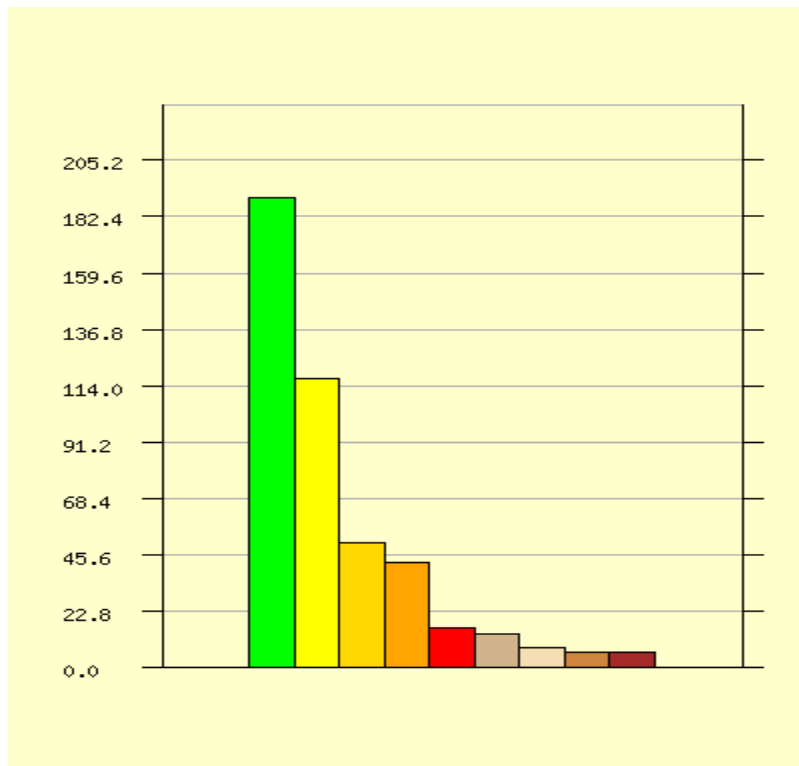
**Number of stories**

Legend	Description/Value	Count	Percentage
<span style="color: green;">■</span>	2	128	28.6%
<span style="color: yellow;">■</span>	3	128	28.6%
<span style="color: orange;">■</span>	4	66	14.7%
<span style="color: orange;">■</span>	1	50	11.2%
<span style="color: red;">■</span>	N/A	37	8.3%








	More than 6	23	5.1%
	6	9	2.0%
	5	7	1.6%

### STORY OF ORIGIN

This category indicates the floor level or story on which the fire/incident actually occurred.



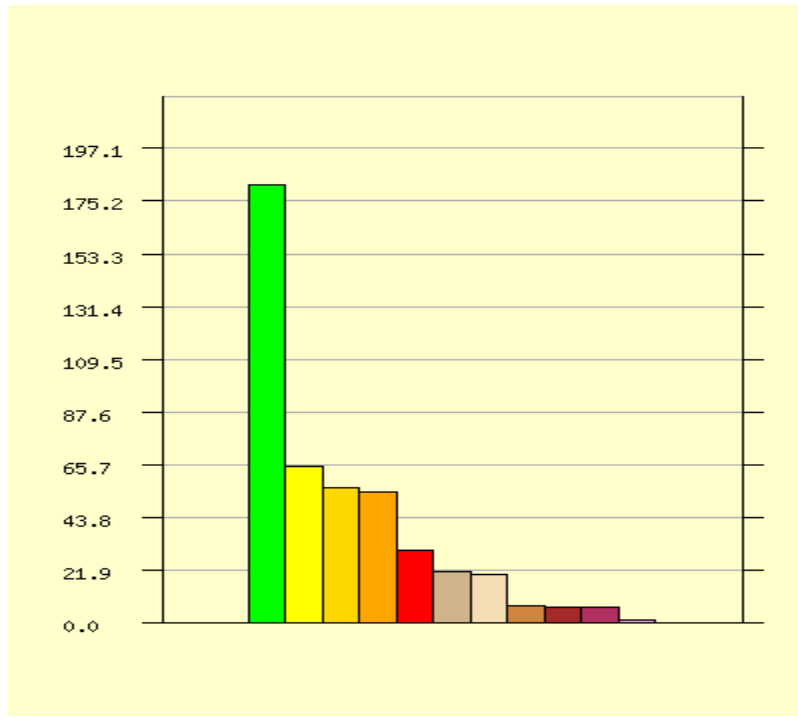
### Story of origin

Legend	Description/Value	Count	Percentage
	1	190	42.4%
	2	117	26.1%
	3	50	11.2%
	N/A	42	9.4%
	Basement	16	3.6%
	More than 6	13	2.9%
	5	8	1.8%











	4	6	1.3%
	6	6	1.3%

### ROOM OF ORIGIN

This category indicates which room of the occupancy that the fire/incident originated.



Room of origin

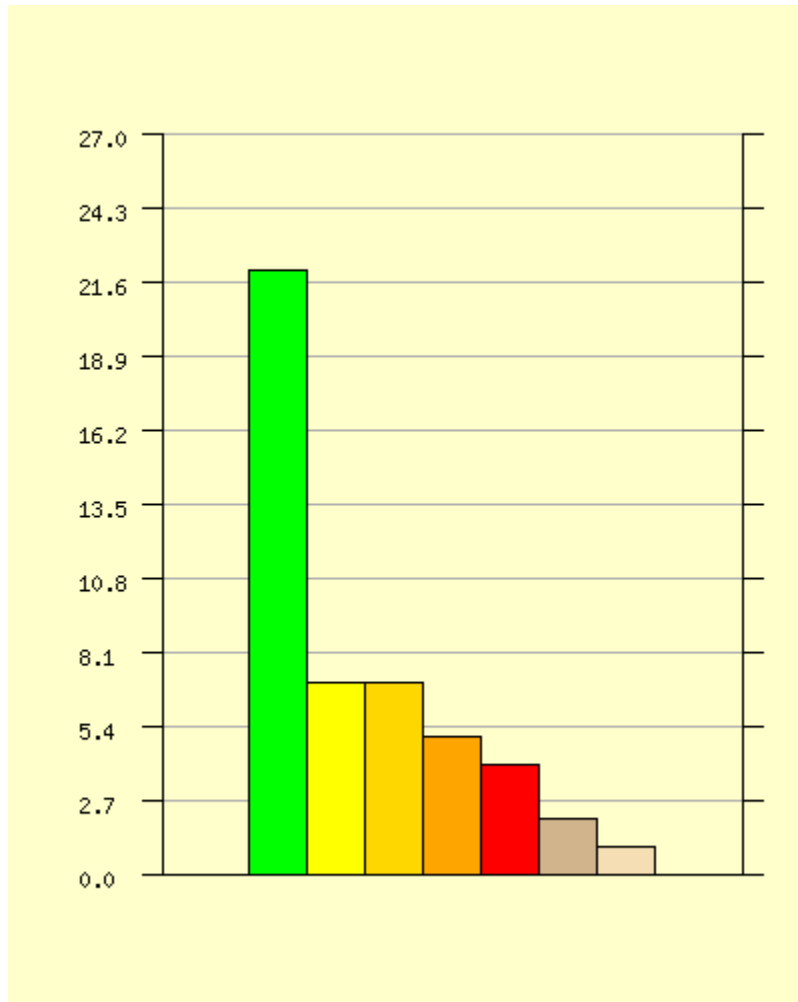
Legend	Description/Value	Count	Percentage
	Kitchen	182	40.6%
	Bedroom	65	14.5%
	N/A	56	12.5%
	Other	54	12.1%
	Living room	30	6.7%
	Garage	21	4.7%
	Bathroom	20	4.5%
	Family room	7	1.6%
	Work room	6	1.3%
	Basement	6	1.3%



Dining room	1	0.2%
N/A	54	100.0%

### AREA OF ROOM OF ORIGIN

This category asks for the area of the room of origin of the fire/incident in square footage.



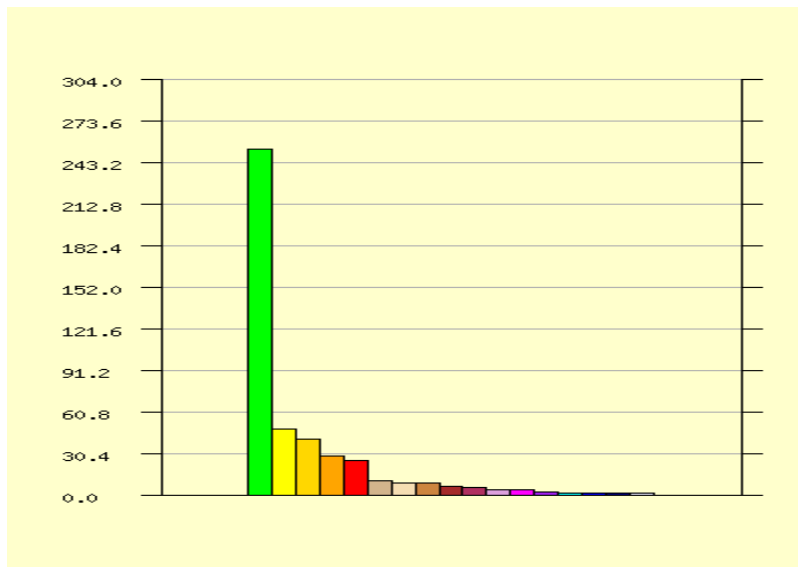
Area of the room of origin

Legend	Description/Value	Count	Percentage
	0 - 100 sqft	22	45.8%
	101 - 150 sqft	7	14.6%
	151 - 200 sqft	7	14.6%
	201 - 250 sqft	5	10.4%
	251 - 300 sqft	4	8.3%















	351 - 400 sqft	2	4.2%
	301 - 350 sqft	1	2.1%

### WIDTH OF THE ROOM OF ORIGIN

The data collected is that of the length of the room in liner feet.



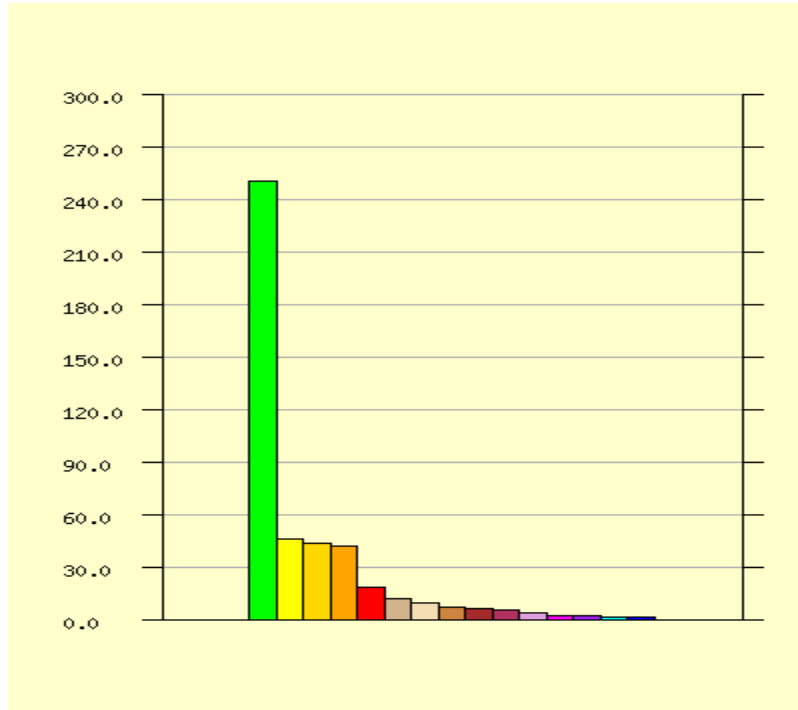
Width of the room of origin

Legend	Description/Value	Count	Percentage
	N/A	253	56.5%
	12	48	10.7%
	10	41	9.2%
	20	28	6.3%
	8	25	5.6%
	5	10	2.2%
	15	9	2.0%
	18	9	2.0%
	7	6	1.3%
	6	5	1.1%
	9	4	0.9%
	14	4	0.9%
	16	2	0.4%
	3	1	0.2%













	2	1	0.2%
	13	1	0.2%
	4	1	0.2%

### Length of room of origin

The data collected is that of the length of the room of origin in linier feet



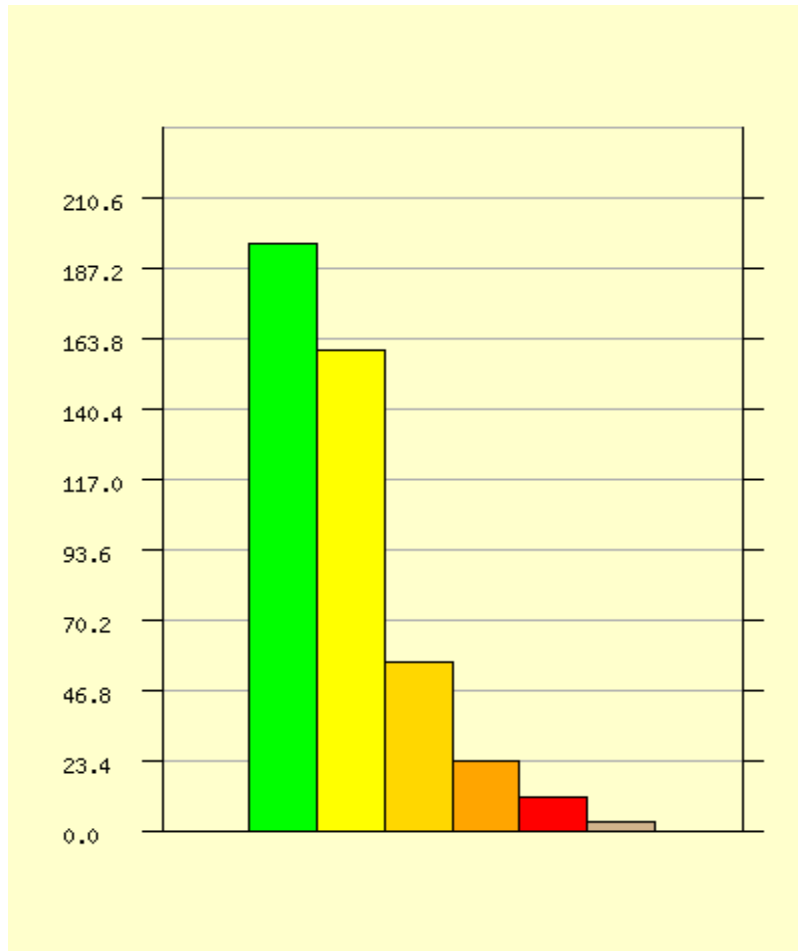
### Length of the room of origin

Legend	Description/Value	Count	Percentage
	N/A	250	55.8%
	20	46	10.3%
	10	43	9.6%
	12	42	9.4%
	14	18	4.0%
	15	12	2.7%
	18	9	2.0%
	16	7	1.6%
	8	6	1.3%
	7	5	1.1%
	13	4	0.9%
	3	2	0.4%

■	9	2	0.4%
■	6	1	0.2%
■	11	1	0.2%




### NUMBER OF HEADS IN ROOM OF ORIGIN

This category was to collect the data indicating how many sprinkler heads were present in the room of origin of the fire/incident.



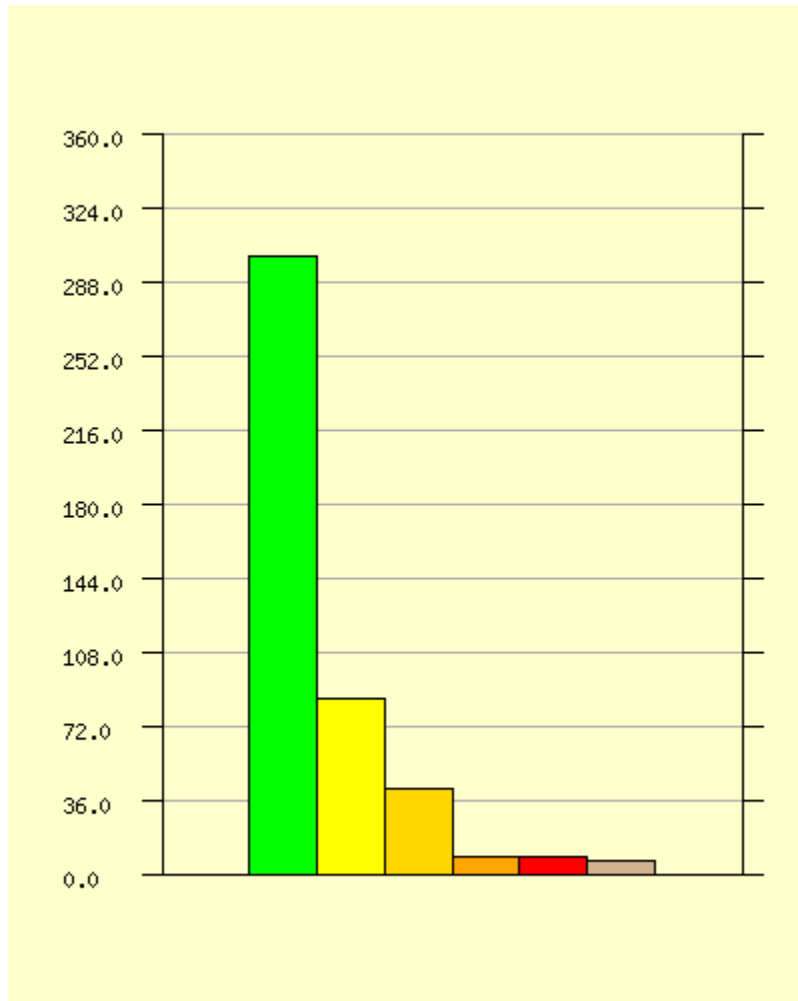
### Number of heads in room of origin

Legend	Description/Value	Count	Percentage
■	1	195	43.5%
■	N/A	160	35.7%
■	2	56	12.5%






	4	23	5.1%
	3	11	2.5%
	5 or more	3	0.7%

### NUMBER OF HEADS ACTIVATED

This category indicates the number of sprinkler heads activated during the fire/incident.



#### Number of heads activated:

Legend	Description/Value	Count	Percentage
	1	300	67.0%
	N/A	85	19.0%
	2	41	9.2%
	3	8	1.8%
	5 or more	8	1.8%



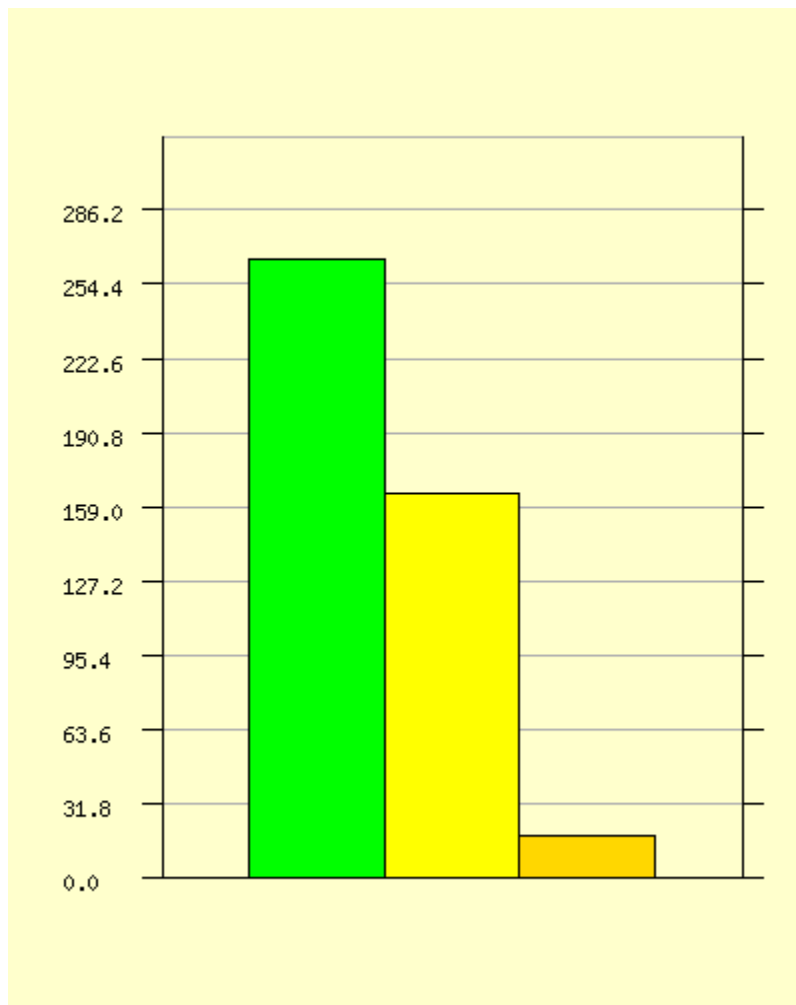
4

6

1.3%

### TYPE OF HEAD ACTIVATED #1

This category indicates the type of head activated during the fire/incident.



Type of head activated #1

Legend	Description/Value	Count	Percentage
	Exposed	265	59.2%
	N/A	165	36.8%



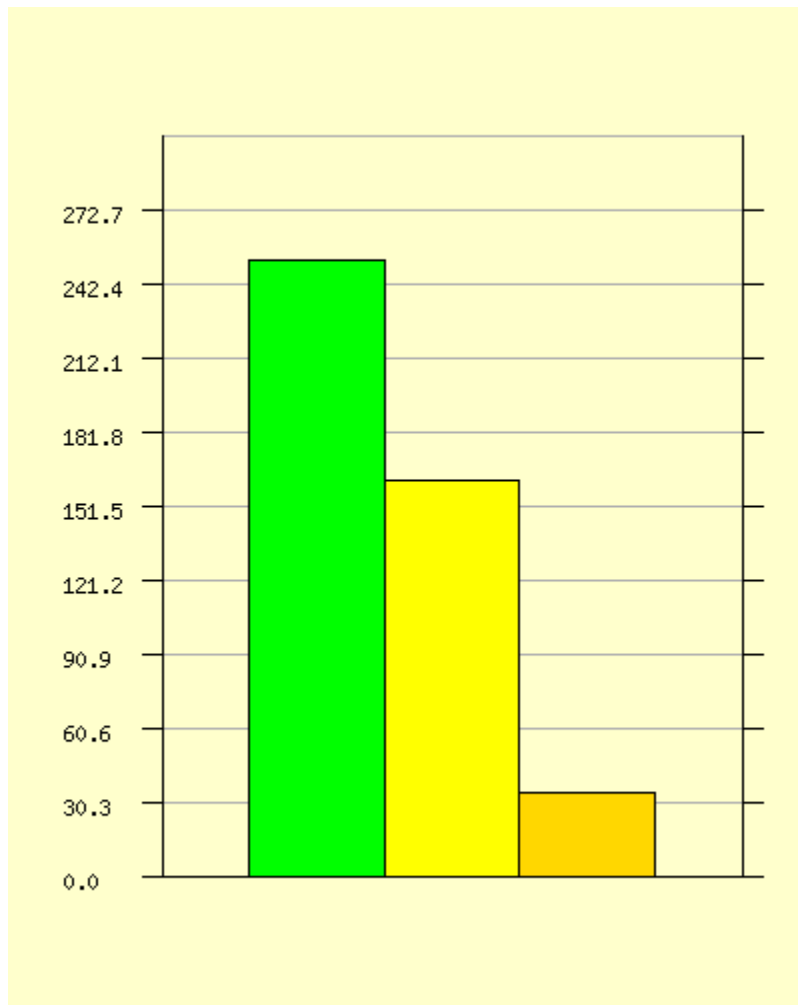
Concealed

18

4.0%

### TYPE OF HEAD ACTIVATED #2

This category indicates the type of head activated, either fast response or standard response.

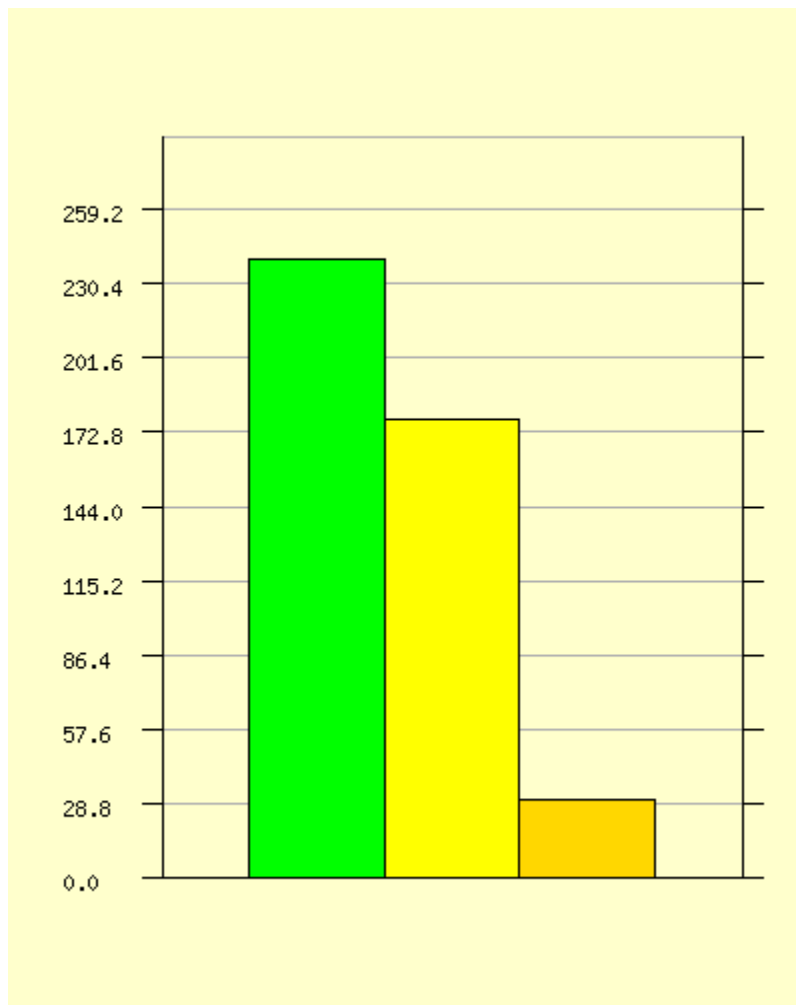


Type of head activated #2

Legend	Description/Value	Count	Percentage
■	Fast response	252	56.3%
■	N/A	162	36.2%
■	Standard	34	7.6%

### TYPE OF HEAD ACTIVATED #3

This category indicates the type of head activated, either pendant or side wall.



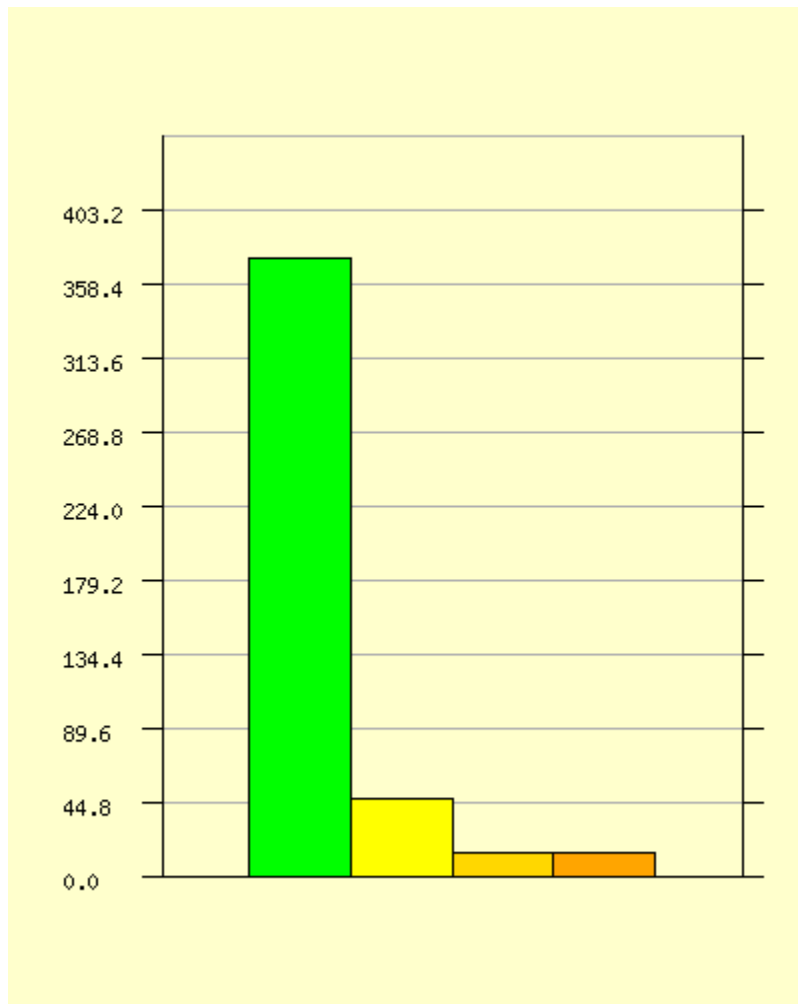
Type of head activated #3

Legend	Description/Value	Count	Percentage
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	Pendant	240	53.6%
	N/A	178	39.7%
	Side wall	30	6.7%

### REASON FOR ACTIVATION

This data field collected the different reasons for a sprinkler head to be activated.

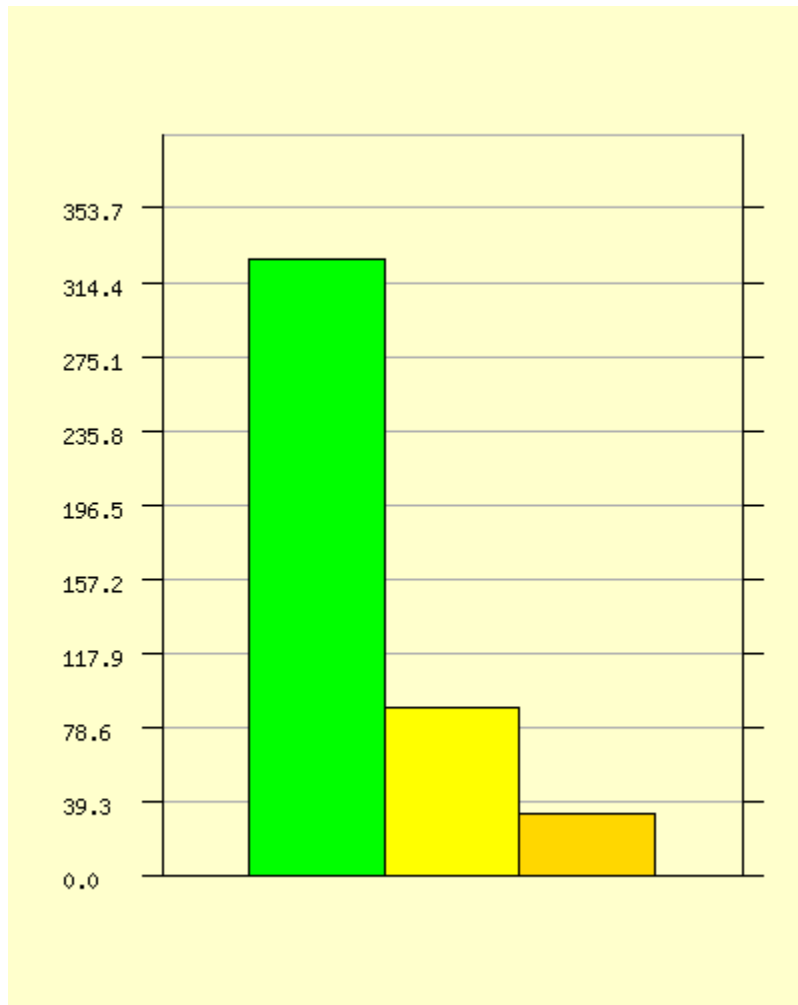


Reason for activation

Legend	Description/Value	Count	Percentage
<span style="color: green;">■</span>	Fire	373	83.3%
<span style="color: yellow;">■</span>	N/A	47	10.5%
<span style="color: orange;">■</span>	System malfunction	14	3.1%
<span style="color: brown;">■</span>	Vandalism to system	14	3.1%

### SMOKE DETECTOR PRESENT

In this category it was asked if a smoke detector was present or not present in the structure.

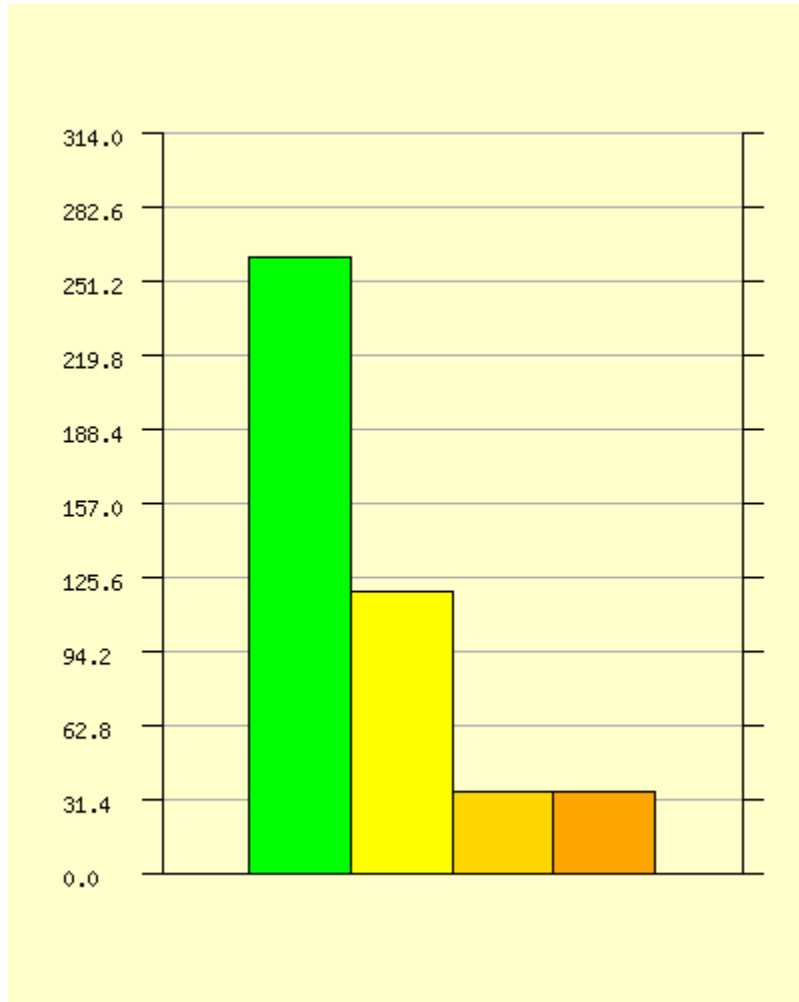


**Smoke detector present**

Legend	Description/Value	Count	Percentage
■	Yes	327	73.0%
■	N/A	89	19.9%
■	No	32	7.1%

### DID THE DETECTOR OPERATE

In this category it was asked if the smoke detector operated.

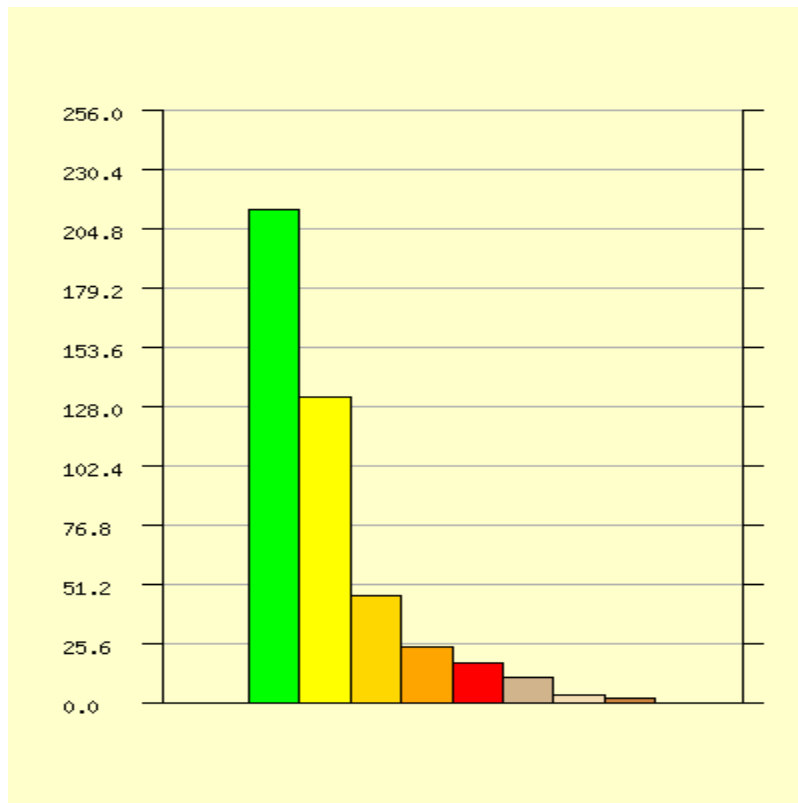


Did they operate

Legend	Description/Value	Count	Percentage
<span style="color: green;">■</span>	Yes	261	58.3%
<span style="color: yellow;">■</span>	No smoke detector	119	26.6%
<span style="color: gold;">■</span>	N/A	34	7.6%
<span style="color: orange;">■</span>	No	34	7.6%







### ESTIMATED RANGE OF DOLLARS SAVED BY ACTIVATION

In this category the same choices were given to estimate the dollars (SAVED) by the sprinkler head (s) activations as in the dollar (LOSS) category. The number of not reported responses can be attributed to the fact that the fire service, as well as the insurance industry normally track dollars LOST and not dollars SAVED.



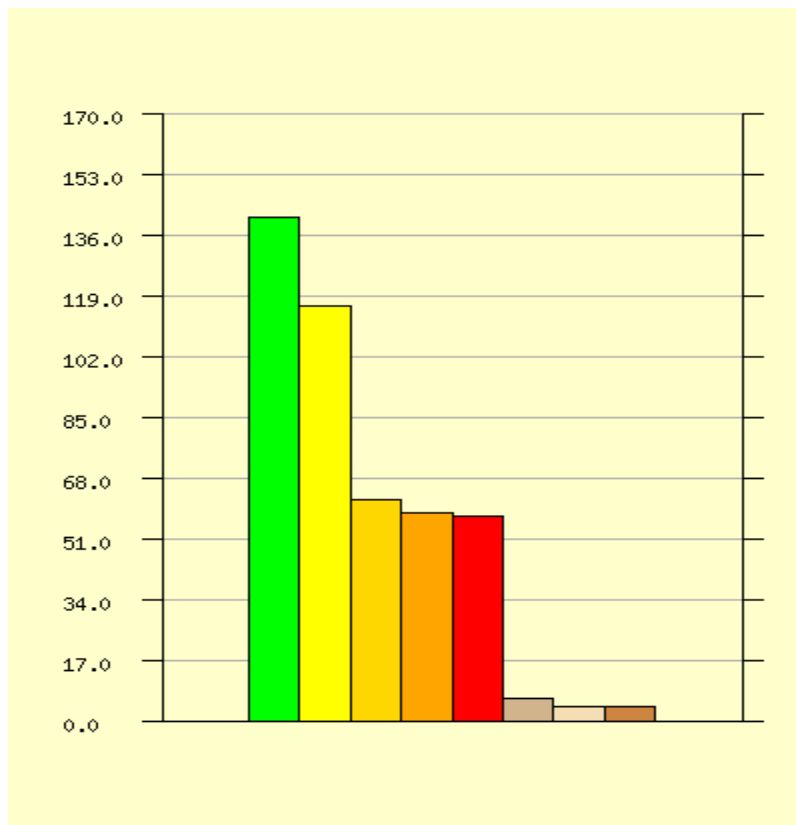
Estimated range of dollars saved by activation

Legend	Description/Value	Count	Percentage
<span style="color: green;">■</span>	More than 250,000	213	47.5%
<span style="color: yellow;">■</span>	N/A	132	29.5%



	100,001 - 250,000	46	10.3%
	0 - 1,000	24	5.4%
	50,001 - 100,000	17	3.8%
	10,001 - 50,000	11	2.5%
	5,001 - 10,000	3	0.7%
	1,001 - 5,000	2	0.4%







### INCIDENT DOLLAR LOSS

This category was included in the project to ascertain the dollar loss resulting from the fire/incident.



#### Incident dollar loss range

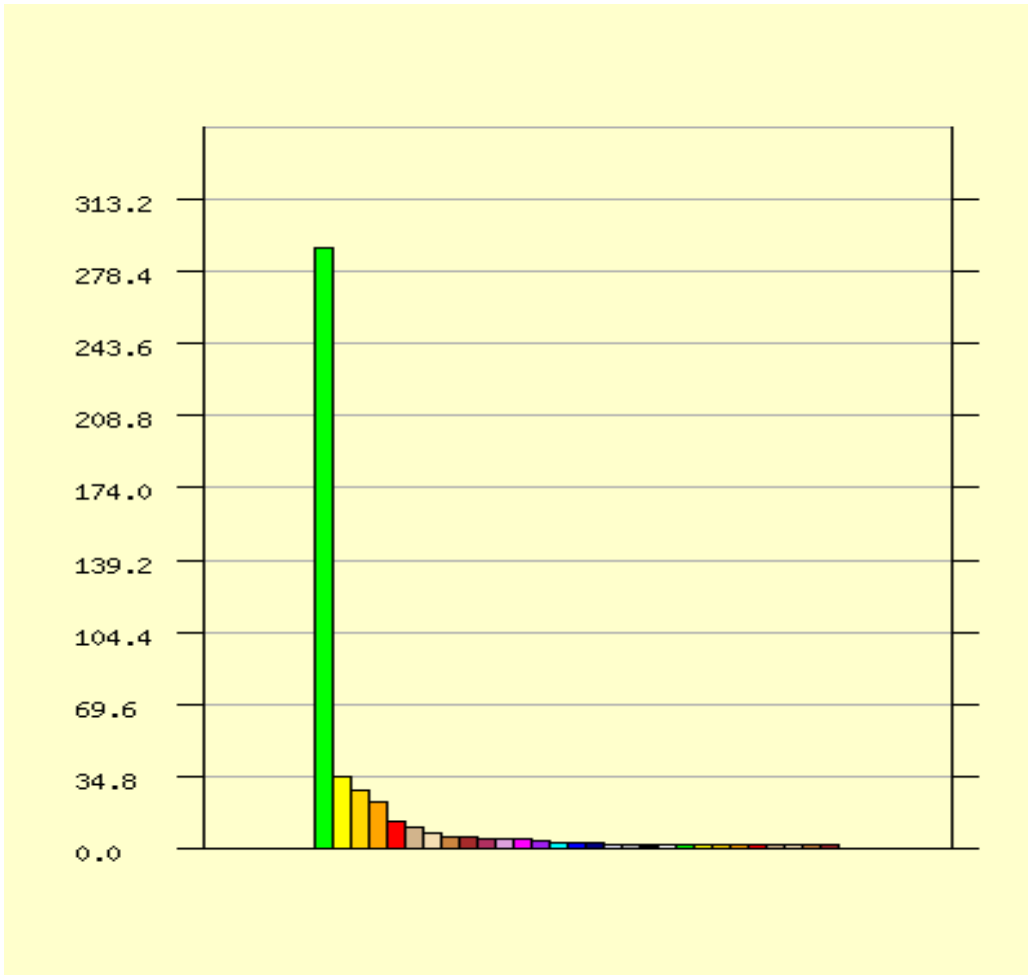
Legend	Description/Value	Count	Percentage
	0 - 1,000	141	31.5%
	1,001 - 5,000	116	25.9%

	10,001 - 50,000	62	13.8%
	N/A	58	12.9%
	5,001 - 10,000	57	12.7%
	100,001 - 250,000	6	1.3%
	More than 250,000	4	0.9%
	50,001 - 100,000	4	0.9%

### ESTIMATED LIVES SAVED BY ACTIVATION







This category was included in the project to try and determine/estimate how many lives were saved as the result of the fire sprinkler activations in residential occupancies. This category was suspected to be the most difficult to get conclusive data.
























A criteria or qualifier was not set for determining the number of lives saved. It did not specify if that number should include the total occupancy of the structure or the total occupants at the time of the incident. Or, the number of occupants in the room/area of the incident where there was eminent danger of losing their life.



Continued on next page

**Estimated number of lives saved by activation**

Legend	Description/Value	Count	Percentage
	N/A	290	64.7%
	2	34	7.6%
	1	28	6.3%
	0	22	4.9%
	3	13	2.9%
	5	10	2.2%

	40	7	1.6%
	6	5	1.1%
	4	5	1.1%
	35	4	0.9%
	10	4	0.9%
	45	4	0.9%
	12	3	0.7%
	30	2	0.4%
	25	2	0.4%
	24	2	0.4%
	65	1	0.2%
	22	1	0.2%
	1100	1	0.2%
	90	1	0.2%
	7	1	0.2%
	100	1	0.2%
	14	1	0.2%
	8	1	0.2%
	53	1	0.2%
	15	1	0.2%
	18	1	0.2%
	20	1	0.2%
	11	1	0.2%

## State Regulations for Contractors, Designers & Installers of NFPA 13D Systems

The Residential Fire Safety Institute (RFSI) has compiled a list of state licensing requirements for fire sprinkler contractors. The purpose of this project was to determine the impact on the regulations on contractors who install NFPA 13D systems. The scope of NFPA 13D is limited to 1- and two-family homes, for both site-built and manufactured homes. This project was funded by the United State Fire Administration under Cooperative Agreement EME-1998-CA-0476.

The goals of the project were two-fold. The first goal was to identify state licensing requirements that apply to NFPA 13D contractors. Some states do not regulate contractors at all, while other states have adopted very stringent requirements that serve to limit the number of contractors who can install NFPA 13D systems. The limitations usually arise where the regulations do not delineate between contractors who limit their work to 13D systems and those who install sprinklers in high-rise or high-hazard occupancies. Consequently, every contractor who is authorized to install 13D systems must have the capability to design and install the most sophisticated type of fire sprinkler systems.

The second goal was to list the specific state licensing requirements so that proponents of residential fire sprinklers could determine if the requirements were reasonable and applicable to NFPA 13D contractors. This will assist them in addressing regulations that unduly restrict otherwise qualified contractors from installing 13D systems. The list shows that some states have created separate licensing requirements for contractors who want to limit their work to 13D systems. These may be used as models for other states.

Modifications to the 1999 edition of NFPA 13D are proving to encourage the use of multipurpose systems, which combine a home's fire sprinklers with the plumbing system. To perform this work, contractors must be qualified to both install residential fire sprinklers and to work on potable water systems. The list shows that most of the existing state regulations make it very difficult for a contractor with a plumbing license to achieve the qualifications necessary to include fire sprinklers with a plumbing system. Many of those state regulations were adopted long before residential sprinkler systems were anticipated, let alone sprinkler systems that are part of potable water systems. The list does reveal a few states that have addressed the potable water limitation by establishing lesser sprinkler requirements for 13D contractors. This is making it easier for a contractor who is licensed to work on potable water systems to become licensed for installing 13D systems.

In those states with regulations that include the installation of residential fire sprinkler systems, the qualifications from state to state bear a rough resemblance to each other. Contractors typically need to have a business license, which has insurance and bonding requirements. As for competence in installing residential sprinkler systems, most of the state regulations do not specifically require that the owner of the business have the competence. Rather, they require that someone in a supervisory position in the company have that competence. There are a variety of names used for that individual, such as Qualifying Party, Responsible Managing Employee, Certificate Holder, etc., but they all refer to the same thing.

Some states have different qualifications for sprinkler system designers than the qualifying party, but they generally require that the designer be an employee of the contractor. Others have specific qualifications for installers that differ from a company's qualifying party. The following list (pages 2-9) of state regulations is organized to describe the specific licensing qualifications for company owners, qualifying parties, designers and installers.

<a href="#">Alabama</a>	<a href="#">Alaska</a>	<a href="#">Arizona</a>	<a href="#">Arkansas</a>	<a href="#">California</a>
<a href="#">Colorado</a>	<a href="#">Connecticut</a>	<a href="#">Delaware</a>	<a href="#">DC</a>	<a href="#">Florida</a>

<a href="#">Georgia</a>	<a href="#">Hawaii</a>	<a href="#">Idaho</a>	<a href="#">Illinois</a>	<a href="#">Indiana</a>
<a href="#">Iowa</a>	<a href="#">Kansas</a>	<a href="#">Kentucky</a>	<a href="#">Louisiana</a>	<a href="#">Maine</a>
<a href="#">Maryland</a>	<a href="#">Massachusetts</a>	<a href="#">Michigan</a>	<a href="#">Minnesota</a>	<a href="#">Mississippi</a>
<a href="#">Missouri</a>	<a href="#">Montana</a>	<a href="#">Nebraska</a>	<a href="#">Nevada</a>	<a href="#">New Hampshire</a>
<a href="#">New Jersey</a>	<a href="#">New Mexico</a>	<a href="#">New York</a>	<a href="#">North Carolina</a>	<a href="#">North Dakota</a>
<a href="#">Ohio</a>	<a href="#">Oklahoma</a>	<a href="#">Oregon</a>	<a href="#">Pennsylvania</a>	<a href="#">Rhode Island</a>
<a href="#">South Carolina</a>	<a href="#">South Dakota</a>	<a href="#">Tennessee</a>	<a href="#">Texas</a>	<a href="#">Utah</a>
<a href="#">Vermont</a>	<a href="#">Virginia</a>	<a href="#">Washington</a>	<a href="#">West Virginia</a>	<a href="#">Wisconsin</a>
<a href="#">Wyoming</a>				

### **ALABAMA**

**Contractor qualifications:** A contractor must have a State Fire Marshal Permit. To acquire it, the contractor must be or employ a Certificate Holder.

**Certificate Holder qualifications:** A Responsible Managing Employee (owner, partner, officer or employee who is actively in charge of the work) who has a NICET Level III certificate for a sprinkler layout technician.

**Designer qualifications:** The certificate holder can design the plans.

**Installer qualifications:** No information.

**Reciprocity:** Contingent upon other states signing a reciprocity agreement. Georgia and Louisiana have reciprocity agreements.

**Regulating Authority:** State fire marshal.

**Discussion:** None.

### **ALASKA**

**Contractor qualifications:** Must have a State Fire Marshal Permit, Class II-B or II-C, or employ a person who holds a permit.

**Permit holder qualifications:** Two years experience in fire sprinkler installation and a NICET Level II certificate in sprinkler layout.

**Designer qualifications:** Two years experience in fire sprinkler installation and a NICET Level III certificate in sprinkler layout.

**Installer qualifications:** Must be supervised by permit holder.

**Reciprocity:** No information.

**Regulating Authority:** State fire marshal.

**Discussion:** Local jurisdictions that have home rule authority may adopt regulations that are more restrictive than the state fire marshal regulations.

## ARIZONA

**Contractor qualifications:** The contractor must have a C-16 (fire sprinklers) or a C-37 (plumbing) license, which requires that the contractor be or employ a Qualifying Party.

**Qualifying party qualifications:** For a sprinkler contractor, four years experience in fire sprinkler installation. For a plumbing contractor, four years experience in plumbing installation.

**Designer qualifications:** No information.

**Installer qualifications:** No information.

**Reciprocity:** None.

**Regulating Authority:** State Registrar of Contractors.

**Discussion:** The Arizona Registrar of Contractors issues rules governing the contractor classifications and license requirements. R4-9-103, titled "Residential Contracting License Classifications and Scope of Work," includes C-37, the license for residential plumbing. The scope of the work allowed under the C-37 license includes fire protection systems in the definition of plumbing.

## ARKANSAS

**Contractor qualifications:** The contractor must be or employ a Responsible Managing Employee.

**Responsible Managing Employee qualifications:** Must have a Certificate of Registration from the State Fire Protection Licensing Board, which requires a NICET Level III certificate for sprinkler system layout technicians.

**Designer qualifications:** The Certificate Holder is authorized to design systems.

**Installer qualifications:** None reported.

**Reciprocity:** No information.

**Regulating Authority:** State Fire Protection Licensing Board.

**Discussion:** None.

## CALIFORNIA

**Contractor qualifications:** The contractor must have a C-16 license. To get a C-16 license, the contractor must be or employ a Qualifying Individual.

**Qualifying Individual qualifications:** Journeyman sprinkler fitter or four year experience and pass an exam that covers the trade, state law and business law.

**Designer qualifications:** Must be a Qualifying Individual.

**Installer qualifications:** Journeyman or apprentice sprinkler fitter.

**Reciprocity:** No information.

**Regulating Authority:** Contractors State License Board.

**Discussion:** There are approximately 1,200 contractors in the state who have both a C-16 and C-36 license.

## COLORADO

**Contractor qualifications:** The contractor must have a contractor's license. No experience is required for the license. The contractor must also register with the State Fire Marshal. See the discussion section for local requirements.

**Permit holder, managing employee qualifications:** No requirements.

**Designer qualifications:** No requirements.

**Installer qualifications:** No requirements.

**Reciprocity:** No information.

**Regulating Authority:** State fire marshal.

**Discussion:** Plans must be reviewed and approved by a state-certified fire inspector. The State of Colorado allows local codes and regulations that are more restrictive than the state requirements. Jurisdictions in the Colorado Springs region have adopted the Pikes Peak Regional Building Code, which contains requirements for fire sprinkler contractors that are more restrictive than the state requirements.

## CONNECTICUT

**Contractor qualifications:** Contractors must provide evidence of two years experience as a journeyman in the sprinkler trade.

**Permit holder or Managing Employee qualifications:** No requirements.

**Designer qualifications:** Must have a NICET Level III certificate for fire sprinkler layout or be a registered engineer.

**Installer qualifications:** Journeyman sprinkler fitter or have four years experience and pass exam.

**Reciprocity:** No information.

**Regulating Authority:** Consumer Protection Department.

**Discussion:** None.

## DELAWARE

**Contractor qualifications:** Contractor must be or employ a Certificate Holder.

**Certificate Holder qualifications:** Must have a Class IV certificate, which covers sprinklers in 1- and 2-family homes. The exam for the Class IV certificate covers Delaware state fire marshal regulations and NFPA 13D.

**Designer qualifications:** Class IV certificate.

**Installer qualifications:** No information.

**Reciprocity:** No information.

**Regulating Authority:** State fire marshal.

**Discussion:** None.

## DISTRICT OF COLUMBIA

*No state licensing laws or regulations.*

## FLORIDA

**Contractor qualifications:** The contractor must have a Florida Occupational License and either be or employ a Certificate Holder with a Level IV certificate from the State Fire Marshal. If the contractor has more than one business location, then there must be a Certificate Holder at each location.

**Certificate Holder qualifications:** Must have a Level IV certificate. For sprinkler contractors, this requires passing a 13D exam and two years experience with a Level I, II, III or IV contractor. For plumbers, the state fire marshal will accept four years work experience with a licensed plumbing contractor, attendance at a residential fire sprinkler workshop that has been approved by the state, and passing the Level IV exam.

**Designer qualifications:** Must have a Level IV certificate.

**Installer qualifications:** No information.

**Reciprocity:** No information.

**Regulating Authority:** State fire marshal.

**Discussion:** The state fire marshal will accept a NICET Level III certificate in fire sprinkler layout as an alternate to the experience requirements. The exam for the Level IV certificate is multiple choice and open-book. In addition to NFPA 13D, the exam covers state and federal laws, workplace safety standards, administrative procedures and pertinent technical data.

## GEORGIA

**Contractor qualifications:** The contractor must either be or employ a Certificate Holder. If the contractor has more than one business location, a Certificate Holder is required at each location.

**Certificate Holder qualifications:** Must pass a competency exam.

**Designer qualifications:** Must be a registered professional engineer.

**Installer qualifications:** Must be directly supervised by the Certificate Holder

**Reciprocity:** Yes, if the other state has comparable rules.

**Regulating Authority:** State fire marshal.

**Discussion:** None.

## HAWAII

**Contractor qualifications:** The contractor must have a C-20 license, which requires that the contractor be or employ a Responsible Managing Employee.

**Responsible Managing Employee qualifications:** Must document four years of supervisory experience in sprinkler installation during the past 10 years and pass exam. The documentation consists of notarized statements from three individuals who will attest to the supervisory experience.

**Designer qualifications:** No information.

**Installer qualifications:** No information.

**Reciprocity:** No information.

**Regulating Authority:** State fire marshal.

**Discussion:** None.

## IDAHO

**Contractor qualifications:** The contractor must be or employ a Managing Employee.

**Managing Employee qualifications:** Pass the state fire marshal exam, show proof of installing (or supervising the installation of) four sprinkler systems with 200 sprinklers each, or have a NICET Level III certificate for fire sprinkler system layout.

**Designer qualifications:** A Managing Employee is authorized to design systems.

**Installer qualifications:** Must document 1,000 hours work experience per year for three consecutive years and pass exam.

**Reciprocity:** No information.

**Regulating Authority:** State fire marshal.

**Discussion:** None.

## ILLINOIS

*No state licensing laws or regulations.*

## INDIANA

*No state licensing laws or regulations.*

## IOWA

*No state licensing laws or regulations.*

## KANSAS

*No state licensing laws or regulations.*

## **KENTUCKY**

**Contractor qualifications:** The contractor must be or employ a Certificate Holder.

**Certificate Holder qualifications:** Must have a NICET Level III certificate for a fire sprinkler layout technician.

**Designer qualifications:** Certificate Holders are authorized to design systems.

**Installer qualifications:** Must be supervised by a Certificate Holder.

**Reciprocity:** No information.

**Regulating Authority:** Department of Housing, Buildings and Construction.

**Discussion:** None.

## **LOUISIANA**

*No state licensing laws or regulations.*

## **MAINE**

**Contractor qualifications:** The contractor must be or employ a Responsible Managing Employee.

**Responsible Managing Employee qualifications:** Must be a registered professional engineer with five years experience or have a NICET Level III certificate for fire sprinkler layout technicians.

**Designer qualifications:** A Responsible Managing Employee is authorized to design sprinkler systems.

**Installer qualifications:** No information.

**Reciprocity:** No information.

**Regulating Authority:** State fire marshal.

**Discussion:** Each installation must be inspected by a certified inspection technician. Inspection technicians must pass a 25-question multiple choice open book test.

## **MARYLAND**

**Contractor qualifications:** The contractor must have a Class II sprinkler contractor's license, which requires that the contractor be or employ a Responsible Managing Employee.

**Responsible Managing Employee qualifications:** Must have a NICET Level II certificate for fire sprinkler layout technicians.

**Designer qualifications:** The Responsible Managing Employee is authorized to design sprinkler systems.

**Installer qualifications:** No information.

**Reciprocity:** No information.

**Regulating Authority:** State fire marshal.

**Discussion:** None.

## **MASSACHUSETTS**

**Contractor qualifications:** The contractor must be or employ a Managing Employee.

**Managing Employee qualifications:** Must have a NICET Level III certificate for sprinkler layout technicians with five years experience and pass an oral exam, or pass a written and oral exam.

**Designer qualifications:** A Managing Employee is authorized to design sprinkler systems.

**Installer qualifications:** Must be a journeyman sprinkler fitter, which requires 8000 hours in an approved apprenticeship program.

**Reciprocity:** No information for contractors or designers. Sprinkler fitters with out-of-state journeyman certificates can take an exam.

**Regulating Authority:** Bureau of Pipefitting and Refrigeration Technicians.

**Discussion:** None.

## **MICHIGAN**

**Contractor qualifications:** The contractor must have a Fire Suppression Contractors license, and be or employ a Qualifying Employee.

**Qualifying Employee qualifications:** Must have a NICET Level III certificate for fire sprinkler layout technicians and document experience in fire sprinkler installation.

**Designer qualifications:** A Qualifying Employee is authorized to design sprinkler systems.

**Installer qualifications:** No information.

**Reciprocity:** No information.

**Regulating Authorities:** Bureau of Construction Codes; State fire marshal.

**Discussion:** None.

## **MINNESOTA**

**Contractor qualifications:** The contractor must be or employ a Managing Employee.

**Managing Employee qualifications:** Must have 8,000 hours of installation experience and have a NICET Level III certificate for fire sprinkler layout technicians.

**Designer qualifications:** Must have a NICET Level IV certificate for fire sprinkler layout technicians.

**Installer qualifications:** Must have 8,000 hours experience of be an apprentice working under the supervision of a journeyman installer or the Managing Employee.

**Reciprocity:** No information.

**Regulating Authority:** State fire marshal.

**Discussion:** None.

## **MISSISSIPPI**

**Contractor qualifications:** No licensing requirements for contractors building 1-family homes or multi-family homes under three stories or with less than 50 occupants.

**Permit holder qualifications:** None required.

**Designer qualifications:** No information.

**Installer qualifications:** No information.

**Reciprocity:** No information.

**Regulating Authority:** State Board of Contractors.

**Discussion:** None.

## **MISSOURI**

*No state licensing laws or regulations.*

## **MONTANA**

**Contractor qualifications:** The contractor must have or employ a person who has a NICET Level II certificate for fire sprinkler layout technicians.

**Responsible Managing Employee qualifications:** Not required.

**Designer qualifications:** No information.

**Installer qualifications:** Installers must have a NICET Level II certificate for fire sprinkler layout technicians and pass an exam.

**Reciprocity:** No information.

**Regulating Authority:** Bureau of Professional and Occupational Licensing.

**Discussion:** None.

## **NEBRASKA**

**Contractor qualifications:** The contractor must be or employ a Responsible Managing Employee.

**Responsible Managing Employee qualifications:** Must have a Water-Based Fire Protection System Certificate, which requires a NICET Level III certificate for fire sprinkler layout technicians and passing an exam.

**Designer qualifications:** Responsible managing Employees are authorized to design systems.

**Installer qualifications:** No information.

**Reciprocity:** No information.

**Regulating Authority:** State fire marshal.

**Discussion:** None.

## **NEVADA**

**Contractor qualifications:** The contractor must be or employ a Certified Employee.

**Certified Employee qualifications:** Must have a J certificate (installation of 13D systems) from the state fire marshal, which requires passing an exam on NFPA 13D.. Only contractors or installers with C-1, C-1(b) or C-41 licenses are allowed to take the state fire marshal's test for a J certificate.

**Designer qualifications:** No information.

**Installer qualifications:** Must be directly supervised by a Certified Employee.

**Reciprocity:** No information.

**Regulating Authorities:** State Contractors Board; State fire marshal.

**Discussion:** None.

## **NEW HAMPSHIRE**

*No state licensing laws or regulations.*

## **NEW JERSEY**

*No state licensing laws or regulations.*

### **NEW MEXICO**

**Contractor qualifications:** The contractor must have a mechanical contractors license and be or employ a Qualifying Party.

**Qualifying Party qualifications:** Mechanical contractors license.

**Designer qualifications:** No information.

**Installer qualifications:** No information.

**Reciprocity:** No information.

**Regulating Authority:** Construction Industries Division.

**Discussion:** None.

### **NEW YORK**

*No state licensing laws or regulations.*

### **NORTH CAROLINA**

**Contractor qualifications:** The contractor must be or employ a person who has a NICET Level III certificate for fire sprinkler layout technicians.

**Qualifying Party qualifications:** Term not used.

**Designer qualifications:** No information.

**Installer qualifications:** No information.

**Reciprocity:** No information.

**Regulating Authority:** State Board of Examiners of Plumbing, Heating & Fire Sprinkler Contractors.

**Discussion:** None.

### **NORTH DAKOTA**

*No state licensing laws or regulations.*

### **OHIO**

**Contractor qualifications:** The contractor must be or employ someone who is a Certificate Holder.

**Certificate Holder qualifications:** Must pass an exam.

**Designer qualifications:** No information.

**Installer qualifications:** No information.

**Reciprocity:** No information.

**Regulating Authority:** State fire marshal.

**Discussion:** None.

## OKLAHOMA

**Contractor qualifications:** Must be or employ a Fire Sprinkler Company Manager.

**Fire Sprinkler Company Manager qualifications:** Must have a NICET Level III certificate for fire sprinkler layout technicians.

**Designer qualifications:** Fire Sprinkler Company Managers are authorized to design systems.

**Installer qualifications:** Must have a Fire Sprinkler Technician license.

**Fire Sprinkler Technician qualifications:** Must document experience with installation of fire sprinklers.

**Reciprocity:** No information.

**Regulating Authority:** Department of Health Occupational Licensing Service.

**Discussion:** The current state regulations for fire sprinkler contractors are contained in the fire alarm regulations. Those regulations only require state licensing for contractors who connect a fire alarm to a sprinkler system, and thus do not appear to regulate contractors who install NFPA 13D systems that do are not connected to alarm systems.

## OREGON

**Contractor qualifications:** The contractor must be registered with the Oregon Construction Contractors Board and be or employ a Responsible Managing Individual.

**Responsible Managing Individual qualifications:** Must document experience and qualifications to work in field of fire sprinkler system installation.

**Designer qualifications:** No information.

**Installer qualifications:** No information.

**Reciprocity:** No information.

**Regulating Authorities:**

Oregon Construction Contractors Board.

State fire marshal.

**Discussion:** None.

## PENNSYLVANIA

*No state licensing laws or regulations.*

### **RHODE ISLAND**

**Contractor qualifications:** Must be or employ a Sprinkler Journeyman Class I with one year's experience.

**Sprinkler Journeyman Class I qualifications:** 10,000 hours on-the-job experience and 144 hours of related training per year of experience.

**Designer qualifications:** No information.

**Installer qualifications:** Must be a Sprinkler Journeyman Class I or an apprentice.

**Reciprocity:** No information.

**Regulating Authority:** State fire marshal.

**Discussion:** None.

### **SOUTH CAROLINA**

*No state licensing laws or regulations.*

### **SOUTH DAKOTA**

*No state licensing laws or regulations.*

### **TENNESSEE**

**Contractor qualifications:** Must be or employ a Responsible Managing Employee.

**Responsible Managing Employee qualifications:** Must have a NICET Level III certificate for fire sprinkler layout technicians.

**Designer qualifications:** Responsible Managing Employees are authorized to design systems.

**Installer qualifications:** No information.

**Reciprocity:** No information.

**Regulating Authority:** State fire marshal.

**Discussion:** None.

## TEXAS

**Contractor qualifications:** The contractor must be or employ a Responsible Managing Employee - Dwellings.

**Responsible Managing Employee - Dwellings qualifications:** Must be a registered professional engineer and complete a course on 13D systems, or be a master plumber with a NICET Level II certificate for fire sprinkler layout technicians.

**Designer qualifications:** Responsible Managing Employees are authorized to design systems.

**Installer qualifications:** No information.

**Reciprocity:** No information.

**Regulating Authority:** State fire marshal.

**Discussion:** None.

## UTAH

**Contractor qualifications:** A contractor must have two years experience in fire sprinkler installation or equivalent experience as determined by the Division of Occupational & Professional Licensing.

**Qualifying Party qualifications:** Not required.

**Designer qualifications:** No information.

**Installer qualifications:** No information.

**Reciprocity:** No information.

**Regulating Authority:** Department of Commerce, Division of Occupational & Professional Licensing.

**Discussion:** None.

## VERMONT

**Contractor qualifications:** Must be certified by the state fire marshal as a Technically Qualified Person.

**Technically Qualified Person qualifications:** Must be a journeyman sprinkler fitter or pass an exam.

**Designer qualifications:** Must have a NICET Level III certificate for sprinkler system layout technicians.

**Installer qualifications:** Must be a Technically Qualified Person.

**Reciprocity:** No information.

**Regulating Authority:** State fire marshal.

**Discussion:** None.

## VIRGINIA

*No state licensing laws or regulations.*

## WASHINGTON

**Contractor qualifications:** The contractor must be or employ a Certificate of Competency Holder, Level I.

**Certificate of Competency Holder qualifications:** Must pass an open-book exam on 13D or have a NICET Level II certificate for fire sprinkler layout technicians.

**Designer qualifications:** Certificate of Competency Holders are authorized to design systems.

**Installer qualifications:** Must be supervised by Certificate of Competency Holder.

**Reciprocity:** None.

**Regulating Authority:** State fire marshal.

**Discussion:** None.

## WEST VIRGINIA

**Contractor qualifications:** A contractor must have a specialty contractor license for Sprinklers and Fire Protection.

**Specialty License qualifications:** Must pass a 100-question test.

**Designer qualifications:** No information.

**Installer qualifications:** No information.

**Reciprocity:** No information.

**Regulating Authority:** Contractor Licensing Board.

**Discussion:** None.

## WISCONSIN

**Contractor qualifications:** The contractor must have a master plumbers license and attend a 16-hour workshop on 13D systems.

**Qualifying Party qualifications:** Not required.

**Designer qualifications:** No information.

**Installer qualifications:** Must be a journeyman plumber who has attended a 16-hour workshop on 13D systems.

**Reciprocity:** No information.

**Regulating Authority:** Department of Commerce, Plumbing Codes Division.

**Discussion:** None.

**WYOMING**

*No state licensing laws or regulations.*

## Jurisdictions with Sprinkler Ordinances

- Sprinklers**
- Residential Sprinklers Described
- Incentives for Sprinklers
- Model Ordinances/ Amendments
  - Uniform Fire Code
  - NFPA I
  - Fire Response Zones
  - Stand-Alone
- Quality Control of Residential Sprinkler Programs
- Primer on Ordinance Adoption
- Jurisdictions with Sprinkler Ordinances
- Answers to Home Builders
- Sprinkler Regulations by State

### Ordinances that cover 1 & 2-family homes

The following table lists jurisdictions by state that require residential fire sprinklers in 1 & 2-family homes. Some ordinances have specific conditions that must be met before sprinklers are required. Please read the [explanatory notes](#) at the bottom of the table. When no specific conditions are posted, this information was not provided by the AHJ.

<a href="#">Alaska</a>	<a href="#">Arizona</a>	<a href="#">California</a>	<a href="#">Colorado</a>	<a href="#">Connecticut</a>
<a href="#">Florida</a>	<a href="#">Georgia</a>	<a href="#">Idaho</a>	<a href="#">Illinois</a>	<a href="#">Kansas</a>
<a href="#">Maryland</a>	<a href="#">Massachusetts</a>	<a href="#">Minnesota</a>	<a href="#">Nevada</a>	<a href="#">New Hampshire</a>
<a href="#">New Mexico</a>	<a href="#">New York</a>	<a href="#">Ohio</a>	<a href="#">Oregon</a>	<a href="#">Pennsylvania</a>
<a href="#">South Carolina</a>	<a href="#">Tennessee</a>	<a href="#">Texas</a>	<a href="#">Washington</a>	<a href="#">Wisconsin</a>

ALASKA	All	All R	All R-3	Notes	Adopted
Ketchikan	X <sup>1</sup>			1. Over 8,000 sq. feet.	
ARIZONA					
Chandler	X				1986
Drexel Heights		X <sup>1,2</sup>		1. When < 500 GPM. 2. When > 500 ft. from hydrant.	
Fountain Hills	X				1996

Paradise Valley	X				2000
Peoria			X <sup>1</sup>	1. Over 5,000 sq. feet.	
Scottsdale	X <sup>1</sup>			1. All R-3 since 1985	1974
Sedona			X <sup>1</sup>	1. Over 5,000 sq. feet.	
<a href="#">Back to Top</a>					
CALIFORNIA	All	R	R-3	Notes	Adopted
Agoura Hills			X <sup>1</sup>	1. LA County ordinance.	
Albany			X <sup>1</sup>	1. Over 1500 sq. feet.	
<i>Alhambra</i>					2003
<i>Aliso Viejo</i>					
Alto-Richardson Bay	X				
Aptos/La Selva	X				
Arcadia		X			
<i>Arroyo Grande</i>					
Auburn	X <sup>1</sup>			1. Over 10,000 sq. feet.	
Aurora	X <sup>1</sup>			1. Over 7,500 sq. feet.	
Bakersfield		X <sup>1</sup>		1. Over 10,000 sq. feet.	

Belmont					
Beverly Hills	X				
Brentwood			X		1999
Buena Park			X		2003
Burbank			X		
Cambria	X <sup>1</sup>			1. 5000 sq. ft. threshold.	
<i>Carmel Highlands</i>					
<i>Carpenteria</i>					
<i>Central</i>					
<i>Cloverdale</i>					
<i>Claremont</i>					
<i>Coronado</i>					
Corte Madera	X <sup>1</sup>			1. Water < 500 GPM.	1980
<i>Covina</i>					
Culver City	X				1990
Cypress			X <sup>1</sup>	1. Over 3,600 sq. feet.	2003
Dana Point			x		
Daly City	X				
<i>Desert Hot Springs</i>					

<i>Downey</i>					
El Cerrito	X <sup>1</sup>			1. Over 5,000 sq. feet.	
El Monte	X <sup>1</sup>			1. Over 500 sq. feet.	
<i>Encinitas</i>					
<i>Escondido</i>					
<i>Eureka</i>					
<i>Folsom</i>					
Fontana			X		
Foothill		X <sup>1</sup>		1. Over 7,500 sq. feet.	
Foster City	X				
Fountain Valley					
Fremont			X <sup>1</sup>	1. Over 5,000 sq. feet.	1995
Fresno					
Gilroy	X <sup>1</sup>			1. Over 3,000 sq. feet.	1995
Glendale		X			1989
<i>Hawthorne</i>					
<i>Healdsburg</i>					
Huntington Beach					
Irvine			X <sup>1</sup>	1. Over 5,500 sq. feet.	
<i>Kentfield</i>					

<i>Laguna Hills</i>					
Laguna Niguel			X <sup>1</sup>	1. Over 5,500 sq. feet.	
Laguna Woods			X <sup>1</sup>	1. Over 5,500 sq. feet.	
<i>La Habra Heights</i>					
Lake Forest			X <sup>1</sup>	1. Over 5,500 sq. feet.	
<i>Lakeside</i>					
La Palma			X <sup>1</sup>	1. Over 5,500 sq. feet.	
<i>Larkspur</i>					
Livermore			X		
<i>Loma Linda</i>					
Los Alamitos			X <sup>1</sup>	1. Over 5,500 sq. feet.	
Los Angeles			X <sup>1</sup>	1. Access.	
Los Angeles County			X <sup>1</sup>	1. Distance, access, water.	
<i>Malibu</i>					
Manteca-Lathrop			X <sup>1</sup>	1. Over 4,000 sq. feet.	1987
<i>Marin County</i>					
Millbrae			X <sup>1</sup>	1. Over 5,000 sq. feet.	
<i>Mill Valley</i>					
<i>Milpitas</i>					

Mission Viejo			X <sup>1</sup>	1. Over 5,500 sq. feet.	
<i>Montclair</i>					
<i>Montebello</i>					
<i>Monterey</i>					
Napa		X			
Newark	X <sup>1</sup>			1. Over 500 sq. feet.	
Norco	X <sup>1</sup>			1. Over 2,500 sq. feet.	
North County		X	X		1996
Novato Fire		X			1995
City of Orange					
Orange County			X <sup>1</sup>	1. Over 5,500 sq. feet.	
Oxnard	X				
<i>Pacific Grove</i>					
Palm Springs	X <sup>1</sup>			1. Over 3,000 sq. feet.	1982
Pebble Beach			X		1999
<i>Petaluma</i>					
Pismo Beach		X <sup>1</sup>		1. Over 4,500 sq. feet.	
Placentia			X		

Rancho Cucamonga					
Rancho Santa Fe	X				
Rancho Santa Margarita					2003
<i>Redlands</i>					
Redondo Beach	X <sup>1</sup>			1. Over 750 sq. feet.	1990
<i>Redwood</i>					
Richmond	X <sup>1</sup>			1. Over 10,000 sq. feet.	
Riverside					REPEAL PENDING 2005
<i>Ross Valley</i>					
Sacramento County			X		
<i>Salinas</i>					
Salinas Rural		X			1995
<i>San Bernadino</i>					
San Bernadino County			X <sup>1</sup>	1. Access, water.	
San Bruno					
<i>San Carlos</i>					
San Clemente			X		1979
<i>San Diego</i>					

<i>San Gabriel</i>					
<i>San Jacinto</i>					PENDING 2005
San Juan Capistrano			X <sup>1</sup>	1. Over 5,500 sq. feet.	
San Luis Obispo		X			1987
San Marcos			X <sup>1</sup>	1. Over 5,000 sq. feet.	
<i>San Mateo</i>					
San Miguel			X		1988
<i>San Rafael</i>					
<i>Sanger</i>					
<i>Santa Barbara</i>					
Santa Clara County					
Santa Cruz	X				1996
Santa Monica	X				1992
Santee	X				
<i>Saratoga</i>					
<i>Sausalito</i>					
<i>Sierra Madre</i>					
Seal Beach			X <sup>1</sup>	1. Over 5,500 sq. feet.	
Sonoma (www.sonoma- county.org)	X				2003

Stanton			x		
Sunnyvale		X			
<i>Tamalpais Valley</i>					
<i>Thunderbolt</i>					
Tiburon	X				1982
Tustin			X <sup>1</sup>	1. Over 5,500 sq. feet.	
Unincorporated Orange County					
Union City	X				1995
<i>Vacaville</i>					
<i>Ventura</i>					
<i>Ventura County</i>					
Villa Park			X <sup>1</sup>	1. Over 5,500 sq. feet.	
<i>West Hollywood</i>					
Westminster			X <sup>1</sup>	1. Over 5,500 sq. feet.	
Woodland		X			
Yolo County			X		1995
Yorba Linda			X <sup>1</sup>	1. Over 5,500 sq. feet.	
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COLORADO	All	R	R-3	Notes	Adopted
Aspen	X <sup>1,2,3</sup>			1. Over 5,000 sq. feet. 2. Two or more stories. 3. Access.	
Basalt	X <sup>1</sup>			1. Over 5,000 sq. feet.	
<i>Boulder</i>					
<i>Denver</i>					
<i>Fort Collins</i>					
Hermosa Cliffs				1. apparatus cannot get within 150' of home. 2. Greater than 3 stories in height to a finished floor. 3. Home greater than 3600 sq ft.	1995
<a href="#">Back to Top</a>					
CONNECTICUT	All	R	R-3	Notes	Adopted
Wethersfield	X <sup>1</sup>			1. Over 2,000 sq. feet.	
<a href="#">Back to Top</a>					
FLORIDA	All	R	R-3	Notes	Adopted
Altamonte Springs			X <sup>1</sup>	1. Over 3,500 sq. feet.	

Boca Raton	X <sup>1</sup>			1. Over 12,000 sq. feet.	
Casselberry	X <sup>1</sup>			1. Over 3,000 sq. feet.	
Flagler Beach	X <sup>1</sup>			1. Over 10,000 sq. feet.	
Jackson/Teton County	X <sup>1</sup>			1. Over 5,000 sq. feet.	
Jacksonville Beach	X <sup>1</sup>			1. Over 7,000 sq. feet.	
Orange County					
Orlando	X <sup>1</sup>			1. Lake Nona subdivision	
Oviedo	X <sup>1</sup>			1. Over 15,000 sq. feet.	
<i>Palm Beach</i>					
Palm Beach County			X <sup>1</sup>	1. Over 10,000 sq. feet.	
St. Lucie County		X			1996
<a href="#">Back to Top</a>					
GEORGIA	All	R	R-3	Notes	Adopted
Covington					
Marrietta					
Morrow			X		1999

<a href="#">Back to Top</a>					
HAWAII	All	R	R-3	Notes	Adopted
Honolulu	X				
<a href="#">Back to Top</a>					
IDAHO	All	R	R-3	Notes	Adopted
Ketchum	X <sup>1</sup>			1. Over 6,000 sq. feet.	
<a href="#">Back to Top</a>					
ILLINOIS	All	R	R-3	Notes	Adopted
<i>Barrington</i>					
<i>Buffalo Grove</i>					
Clarendon Hills			X		2000
Deerfield-Bannockburn		X <sup>1</sup>		1. Over 7,500 sq. feet.	1984
Glen Ellyn	X <sup>1</sup>			1. All new residential	2002
Glenview					
Hazel Crest	X <sup>1</sup>			1. Over 3,500 sq. feet.	
Hickory Hills					January 2005
Highland Park		X	X		

Hoffman Estates		X			
Lake Barrington					
Lombard	X <sup>1</sup>			1. Over 1,000 sq. feet.	
Long Grove	X				
Mount Prospect		X			
Oak Park	X <sup>1</sup>			1. Over 3,500 sq. feet.	
Park Ridge		X			2000
Round Lake Beach					
<i>Tinley Park</i>					
Wheeling	X			1. All new structures, regardless of occupancy type or size.	
West Dundee					
Wood Dale		X <sup>1</sup>		1. Over 7,500 sq. feet.	
<a href="#">Back to Top</a>					
IOWA	All	R	R-3	Notes	Adopted
Iowa City	X				
<a href="#">Back to Top</a>					
KANSAS	All	R	R-3	Notes	Adopted

Leawood	X <sup>1,2</sup>			1. If hydrant > 500 ft. 2. Over 1,000 sq. feet.	
Lenexa			X <sup>1</sup>	1. If water < 1,000 GPM.	
<a href="#">Back to Top</a>					
MAINE	All	R	R-3	Notes	Adopted
Town of South Berwick	X				
<a href="#">Back to Top</a>					
MARYLAND	All	R	R-3	Notes	Adopted
Baltimore					
Frederick County					
Howard County			X		1992
<i>Montgomery County</i>	X	X			2003
Prince George's County		X			1988
<a href="#">Back to Top</a>					
MASSACHUSETTS	All	R	R-3	Notes	Adopted
Marblehead	X <sup>1</sup>		X <sup>2</sup>	1. Over 7,500 sq. feet. 2. If sideyard setback < 20 ft.	1983

North Andover		X			
<a href="#">Back to Top</a>					
MICHIGAN	All	R	R-3	Notes	Adopted
Fenton	X				
<a href="#">Back to Top</a>					
MINNESOTA	All	R	R-3	Notes	Adopted
Plymouth	X <sup>1</sup>			1. Over 2,000 sq. feet.	
St. Paul					
<a href="#">Back to Top</a>					
NEVADA	All	R	R-3	Notes	Adopted
<i>Incline Village</i>					
<a href="#">Back to Top</a>					
NEW HAMPSHIRE	All	R	R-3	Notes	Adopted
Atkinson			X <sup>1</sup>	1. All units within rural residential cluster development.	1991
City of Claremont				1. New or renovated mult-family dwellings	
Derry				1. Modified	

				sprinkler requirement for areas that do not have a municipal water supply.	
Dover					REPEALED 2002
Durham				1. All private dormitory buildings	1991
Laconia				1. New Homes over 3600 sq ft 2. Any new building over 8000 sq ft	Ordinance rescinded 3 weeks after passage
New Boston				1. Large Developments of single-family homes 1. Multi-tenant structures (3 or more)	
Town of Newton				1. All new senior and elderly housing -- includes "over 55 developments"	2005
Town of Petersborough					FIGHTING REPEAL EFFORTS
Salem				1. All new R-1 and R-2 use groups 2. all existing R-1 and R-2 use groups when	

				<p>substantially remodeled.</p> <p>3. All apartment sor condominiums with 4 or more units and/or three stories or more</p> <p>4. Residential care facilities with 5 to 16 clients</p> <p>5. All new residential development of three or more lots</p>	
Town of Strafford					pending
<a href="#">Back to Top</a>					
NEW JERSEY	All	R	R-3	Notes	Adopted
<i>Colts Neck</i>					
<a href="#">Back to Top</a>					
NEW MEXICO	All	R	R-3	Notes	Adopted
<i>Sante Fe</i>					
<i>Sante Fe County</i>					
<a href="#">Back to Top</a>					
NEW YORK	All	R	R-3	Notes	Adopted
<i>Dobbs Ferry</i>					

<i>Fairview</i>					
Greenburgh	X				1982
<i>Harrison</i>					
Issaquah			X <sup>1</sup>	1. Over 2,500 sq. feet.	1992
<a href="#">Back to Top</a>					
OHIO	All	R	R-3	Notes	Adopted
Colerain Twp.	X <sup>1</sup>			1. Over 5,000 sq. feet.	
<a href="#">Back to Top</a>					
OREGON				<i>All residences over 3600 sq ft.statewide</i>	
Cannon City		X <sup>1</sup>		1. Congregate care > 2 stories.	1999
Portland					
<a href="#">Back to Top</a>					
PENNSYLVANIA	All	R	R-3	Notes	Adopted
Broomall		X <sup>1</sup>		1. Over 1,500 sq. feet.	
Buckingham Towhship			X		
Conewago					REPEAL PENDING 2005

Lower Merion Twp.			X <sup>1</sup>	1. If truss joists used	1989
<i>Plymouth</i>					
Upper Dublin Twp.			X		1998
Upper Merion Twp.		X			1987
Warrington Twp.			X		1985
West Whiteland Twp.		X			1989
<a href="#">Back to Top</a>					
<b>SOUTH CAROLINA</b>	All	R	R-3	Notes	Adopted
Mount Pleasant		X <sup>1</sup>		1. Over 4,000 sq. feet.	1985
North Myrtle Beach					
<a href="#">Back to Top</a>					
<b>TENNESSEE</b>	All	R	R-3	Notes	Adopted
Collierville		X <sup>1</sup>	X <sup>2</sup>	1. With three or more dwelling units. 2. Over 4500 sq. ft., or > 2000 sq. ft. and > 300 ft. from public road.	1991
Germantown			X <sup>1,2</sup>	1. Over 35 feet high. 2. Over 7,500	1990

				sq. feet.	
Pleasant View					
<a href="#">Back to Top</a>					
TEXAS	All	R	R-3	Notes	Adopted
Addison	X				1992
Bellaire			X <sup>1</sup>	1. Over 2 stories.	1999
Bunker Hill Village	X				2000
Hedwig Village	X				2000
Hilshire Village	X				1999
Hunter's Creek	X				2000
Lewisville			X <sup>1</sup>	1. Duplexes only.	2000
Lockhart			X		1998
Piney Point Village			X		1998
<i>Plano</i>					
Spring Valley	X				2000
Sugar Land	X <sup>1</sup>			1. Over 7,500 sq. feet.	
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VERMONT	All	R	R-3	Notes	Adopted

Montpelier	X				
<a href="#">Back to Top</a>					
WASHINGTON	All	R	R-3	Notes	Adopted
<i>Auburn</i>					
Black Diamond			X <sup>1</sup>	1. Over 2500 sq. feet.	
<i>Bothell</i>					
Dupont			X		
King County Fire Dist. 4	X <sup>1</sup>			1. Over 10,000 sq. feet.	
King County Fire Marshal			X <sup>1</sup>	1. Over 2,500 sq. feet.	
Olympia	X <sup>1</sup>			1. Over 12,000 sq. feet.	
<i>Port Angeles</i>					
Redmond	X <sup>1</sup>			1. Over 6,000 sq. feet.	
Tacoma					
<a href="#">Back to Top</a>					
WISCONSIN	All	R	R-3	Notes	Adopted
<i>Madison</i>					
Shorewood Hills	X				

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## Explanatory notes

**Note 1.** This data represents information gathered by the Residential Fire Safety Institute (RFSI) from fire departments and other sources. Based on the response to our inquiries, we estimate that the actual number of ordinances is substantially higher.

**Note 2.** Jurisdictions printed in italics *may* have ordinances covering 1-2 family homes, but this has not been verified. The RFSI staff is verifying the information and will continue to revise the list.

**Note 3.** An entry in column 2, "All," means that sprinklers are required in all structures including 1 & 2-family homes.

An entry in column 3, "R," means that sprinklers are required in all residential occupancies including 1 & 2-family homes.

An entry in column 4, "R3," means that sprinklers are required in all 1 & 2-family homes.

**Note 4.** An entry with a superscript indicates a restrictive note in column No. 8. For example, in Corte Madera, CA, the X in column No. 2 indicates that sprinklers are required in all occupancies, but the requirement only applies when the water flow is less than 500 GPM.

**Note 5.** The table does not include:

- Jurisdictions that offer incentives for sprinkler installation but do not require them by ordinance.
- Jurisdictions that require sprinklers on a case-by-case basis, such as a decision by a zoning board.
- Jurisdictions that only require sprinklers in model homes and leave sprinklers as a homebuyer's option.

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