

**FIRE FIGHTER ADVISORY COMMITTEE
AGENDA**

March 21, 2019, 9:00 A.M.

1701 N. Congress Ave., William B. Travis Building, Room 1-104, Austin, Texas

The Fire Fighter Advisory Committee will convene in open session to deliberate and possibly take formal action on any of the following agenda items:

- 1. Roll call – 9:00 a.m.**
- 2. Discussion and possible action on the election of officers.**
- 3. Adoption of the December 13, 2018 Fire Fighter Advisory Committee meeting minutes.**
- 4. Report from the Curriculum and Testing Committee with discussion and possible action on recommendations regarding possible changes to the Certification Curriculum Manual as follows:**
 - a. Updated Reference List for the Hazardous Materials Awareness Curriculum.**
 - b. Updated Reference List for the Hazardous Materials Incident Commander Curriculum.**
 - c. Updated Reference List for the Hazardous Materials Operations – Mission Specific Competencies Curriculum.**
- 5. Discussion and possible action regarding proposed amendments to 37 TAC, Chapter 427, Training Facility Certification.**
- 6. Discussion and possible action regarding proposed amendments to 37 TAC, Chapter 449, Head of a Fire Department.**
- 7. Discussion and possible action regarding rule review for 37 TAC, Chapter 435, Fire Fighter Safety.**
- 8. Discussion of the 2018 data collected on fire fighter injuries, and possible action on developing recommendations to be submitted to the commission for approval and submission to the State Fire Marshal's Office.**
- 9. Update on request by committee member Daniel DeYear on producing an annual report regarding compliance inspection activities, results, and common violations.**
- 10. Discussion and possible action on setting future meeting dates, locations and agenda items.**
- 11. Adjourn meeting.**

1. Roll call--- 9:00 a.m.

2. Discussion and possible action on the election of officers.

- 3. Adoption of the December 13, 2018 Fire Fighter Advisory Committee meeting minutes.**

TEXAS COMMISSION ON FIRE PROTECTION

Presiding Officer Mike Wisko called the December 13, 2018 meeting of the Fire Fighter Advisory Committee to order at 9:00 a.m. at the William B. Travis Building, 1701 N. Congress Ave., Room 1-104, in Austin, Texas.

Member	Jim Reidy	Michael Wisko	Vince Abrigo	Ken Swindle*	Keith Schmidt*
Attendance	Jason Collier	Daniel DeYear	Daniel Buford	Daniel Anderson*	

*absent entire meeting

**absent part of meeting

Staff	Tim Rutland	Deborah Cowan	Andrew Lutostanski, Assistant Attorney General
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| 1. Roll call | Assistant Presiding Officer Daniel DeYear called roll and a quorum was present. |
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| 2. Adoption of Minutes | A motion was made by Jim Reidy and seconded by Daniel Buford to approve the minutes of the September 20, 2018, fire fighter advisory committee meeting as discussed. The motion carried. |
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| 3. 37 TAC, Chapter 429 | <p>A motion was made by Jim Reidy and seconded by Daniel DeYear to approve the amendments to 37 TAC, Chapter 429, Fire Inspector and Plan Examiner, Subchapter A, §§429.1, 429.3, 429.5, 429.7, 429.9 and 429.11 as proposed by the commission. The motion carried.</p> <p>After discussion, staff presented two options for review by the committee in reference to 37 TAC, Chapter 429, Subchapter B, to replace subsection (f) as proposed by the commission. The motion carried.</p> <p>After the discussion, a motion was made by Jim Reidy and seconded by Daniel Buford to recommend replacing subsection (f) in 37 TAC, Chapter 429, Subchapter B, §429.201 with Option 2 that was presented by staff. After further discussion, this motion was withdrawn. The motion carried.</p> <p>A motion was made by Jim Reidy and seconded by Daniel DeYear to submit 37 TAC, Chapter 429, Subchapter B to the commission as proposed with a recommendation to further study Plan Examiner for what parallel certifications can qualify. The motion carried.</p> |
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| 4. 37 TAC, Chapter 439 | A motion was made by Daniel Buford and seconded by Vince Abrigo to approve the amendments to 37 TAC, Chapter 439, Examinations for Certification as proposed by the commission. The motion carried. |
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| 5. 37 TAC, Chapter 441 | A motion was made by Jim Reidy and seconded by Daniel Buford to approve the amendments to 37 TAC, Chapter 441, Continuing Education as proposed by the commission. The motion carried. |
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| 6. 37 TAC, Chapter 459 | A motion was made by Daniel DeYear and seconded by Jim Reidy to approve the amendments to 37 TAC, Chapter 459, Minimum Standards For Fire and Life Safety Educator Certification as proposed by the commission. The motion carried. |
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7. Compliance Program Overview Paul Maldonado, Compliance Section Manager gave an overview of how the agency's compliance program is administered.
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8. Future meeting dates and agenda items The following dates were set for 2019 with a start date of 9:00 a.m.:
- March 21, 2019
 - June 27, 2019
 - September 19, 2019
 - December 4, 2019

Future agenda items: 37 TAC, Chapter 435, Fire Fighter Safety; draft 2018 injury report, feasibility of an annual compliance inspection report

9. Adjournment A motion to adjourn was made by Daniel Buford and seconded by Jim Reidy. The motion carried.

Mike Wisko
Presiding Officer

- 4. Report from the Curriculum and Testing Committee with discussion and possible action on recommendations regarding possible changes to the Certification Curriculum Manual as follows:**
 - a. Updated Reference List for the Hazardous Materials Awareness Curriculum.**
 - b. Updated Reference List for the Hazardous Materials Incident Commander Curriculum.**
 - c. Updated Reference List for the Hazardous Materials Operations – Mission Specific Competencies Curriculum.**

REFERENCE LIST FOR THE HAZARDOUS MATERIALS AWARENESS CURRICULUM

This Reference List is provided as a general guide for both instructors and students to locate information pertaining to the specific objectives in the TCFP Curriculum. This list is **not** all-inclusive and does not in any way limit TCFP development and use of questions to test the objectives of the curriculum:

Required References

Texts

- Certification Curriculum Manual*. Texas Commission on Fire Protection. (Most current edition). Austin, TX: Texas Commission on Fire Protection.
- Code of Federal Regulations, Title 29 Part 1910.120, Appendix A*. United States. U.S. Department of Labor, Occupational Safety & Health Administration.
- Emergency Response Guidebook*. United States. (Most current edition). Washington, DC: U.S. Department of Transportation, Pipeline and Hazardous Materials Safety Administration.
- Essentials of Fire Fighting and Fire Department Operations, 6th edition*. International Fire Service Training Association. (2013). Stillwater, OK: Fire Protection Publications, Oklahoma State University.
- Fundamentals of Fire Fighter Skills, 3rd edition*. International Association of Fire Chiefs, & National Fire Protection Association. (2014). Sudbury, MA: Jones and Bartlett.
- Hazardous Materials Awareness and Operations, 2nd 3rd edition*. Schnepf, R. (~~2010~~ **2019**). Sudbury, MA: Jones & Bartlett.
- Hazardous Materials for First Responders, 4th edition*. International Fire Service Training Association. (2010). Stillwater, OK: Fire Protection Publications, Oklahoma State University.
- Hazardous Materials/Weapons of Mass Destruction Response Handbook, 6th/2013 edition*. McGowan, T. (2012). Quincy, MA: National Fire Protection Association.
- NFPA 472: Standard for Professional Competence of Responders to Hazardous Materials Incidents*. (2013 ed.). Quincy, MA: NFPA Publications. National Fire Protection Association
- Standards Manual for Fire Protection Personnel*. Texas Commission on Fire Protection. (Current edition). Austin, TX: Texas Commission on Fire Protection.

Recommended References

The most current edition of the following publications and media are recommended (not required) supplemental material for program use.

Media

DOT Chart 15: Hazardous Materials Marking, Labeling and Placarding Guide. (or current edition) United States. Washington, DC: U.S. Dept. of Transportation, Pipeline and Hazardous Materials Safety Administration.

Emergency Response Guidebook 2012. [DVD]. United States. (2012). Washington, DC: U.S. Department of Transportation, Pipeline and Hazardous Materials Safety Administration.

Hazmat Awareness. Action Training Systems, Inc. (2008). [2 Disc DVD Set - Recognition & Identification]. Poulsbo, WA: Action Training Systems.

Hazardous Materials Awareness and Operations [DVD]. International Association of Fire Chiefs, & National Fire Protection Association. (2006). Sudbury, MA: Jones and Bartlett.

**REFERENCE LIST FOR THE
HAZARDOUS MATERIALS INCIDENT COMMANDER CURRICULUM**

This Reference List is provided as a general guide for both instructors and students to locate information pertaining to the specific objectives in the TCFP Curriculum. This list is **not** all-inclusive and does not in any way limit TCFP development and use of questions to test the objectives of the curriculum:

Required References

Texts

Certification Curriculum Manual. Texas Commission on Fire Protection. (Most current edition). Austin, TX: Texas Commission on Fire Protection.

Code of Federal Regulations, Title 29 Part 1910.120, Appendix A. United States. U.S. Department of Labor, Occupational Safety & Health Administration.
http://edocket.access.gpo.gov/cfr_2007/julqtr/pdf/29cfr1910.120.pdf

Emergency Response Guidebook. United States. (Most current edition). Washington, DC: U.S. Department of Transportation, Pipeline and Hazardous Materials Safety Administration.

Hazardous Materials Awareness and Operations, 2nd 3rd Edition. Schnepf (~~2010~~ **2019**). Sudbury, MA: Jones & Bartlett.

Hazardous Materials for First Responders, 5th edition (2017). Stillwater, OK: Fire Protection Publications, Oklahoma State University.

Hazardous Materials: Managing the Incident. Chester Noll, G. G., Hildebrand, M. S., & Yvorra, J. G. (2005). MD: Red Hat Publishing Company, Inc.

Hazardous Materials/Weapons of Mass Destruction Response Handbook, 5th edition. Trebisacci, D. G. (2008). Quincy, MA: National Fire Protection Association.

NFPA 472: Standard for Professional Competence of Responders to Hazardous Materials Incidents. (2008 ed.). Quincy, MA: NFPA Publications. National Fire Protection Association

NIOSH Pocket Guide to Chemical Hazards. Cincinnati National Institute for Occupational Safety and Health. (Most current edition). OH: US Department of Health and Human Services, Public Health Service, Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health. <http://www.cdc.gov/niosh/npg/>

Standards Manual for Fire Protection Personnel. Texas Commission on Fire Protection. (Most current edition). Austin, TX: Texas Commission on Fire Protection.

Recommended References

The most current edition of the following publications and media are recommended (not required) supplemental material for program use.

Texts

Bretherick's Handbook of Reactive Chemical Hazards. Urben, P. G., Pitt, M. J., & Bretherick, L. (2007). Amsterdam: Elsevier.

Chlorine Emergencies: An Overview for First Responders. Chlorine Institute. (2007). Arlington, VA: The Chlorine Institute.

CHRIS: Chemical Hazards Response Information System. United States. (1992). COMDTINST, M16465.11B. Washington, DC: U.S. Dept. of Transportation, U.S. Coast Guard.

Dangerous Properties of Industrial and Consumer Chemicals. Cheremisinoff, N. P., King, J. A., & Boyko, R. (1994). New York, NY: M. Dekker.

Emergency Care for Hazardous Materials Exposure. Currance, P., Bronstein, A. C., & Clements, B. (2005). St. Louis, MO: Mosby.

Emergency Handling of Hazardous Materials in Surface Transportation. Association of American Railroads. (2009). Washington, DC: Association of American Railroads.

Fire Protection Guide to Hazardous Materials. National Fire Protection Association. (2001). Quincy, MA: National Fire Protection Association.

Hazardous Materials: Managing the Incident: Field Operations Guide. Chester Bevelacqua, A. S., Hildebrand, M. S., & Noll, G. G. (2007). MD: Red Hat Publishing, Inc.

Hawley's Condensed Chemical Dictionary. Lewis, R. J., & Hawley, G. G. (2007). West Sussex, England: Wiley.

Symbol Seeker: Hazard Identification Manual. Burns, P. P. (2002). Preston, England: Symbol Seeker.

Media

Hazardous Materials Containment Series. Action Training Systems. [4 Disc DVD Set]. Hazardous materials containment - series of 4 titles. Seattle, WA: Action Training Systems.

Hazardous Materials: Managing the Incident DVD Series. Massingham, G., Noll, G. G., Hildebrand, M. S., & Noll, G. G. (2005). [8 Disc DVD Set]. Edgartown, MA: Emergency Film Group.

**REFERENCE LIST FOR THE
HAZARDOUS MATERIALS OPERATIONS - MISSION SPECIFIC COMPETENCIES CURRICULUM**

This Reference List is provided as a general guide for both instructors and students to locate information pertaining to the specific objectives in the TCFP Curriculum. This list is **not** all-inclusive and does not in any way limit TCFP development and use of questions to test the objectives of the curriculum:

Required References

Texts

Certification Curriculum Manual. Texas Commission on Fire Protection. (Most current edition). Austin, TX: Texas Commission on Fire Protection.

Code of Federal Regulations, Title 29 Part 1910.120, Appendix A. United States. U.S. Department of Labor, Occupational Safety & Health Administration.
http://edocket.access.gpo.gov/cfr_2007/julqtr/pdf/29cfr1910.120.pdf

Emergency Response Guidebook. United States. (Most current edition). Washington, DC: U.S. Department of Transportation, Pipeline and Hazardous Materials Safety Administration.

Essentials of Fire Fighting and Fire Department Operations, 6th edition. International Fire Service Training Association. (2013). Stillwater, OK: Fire Protection Publications, Oklahoma State University.

Fundamentals of Fire Fighter Skills, 3rd edition. International Association of Fire Chiefs, & National Fire Protection Association. (2014). Sudbury, MA: Jones and Bartlett.

Hazardous Materials Awareness and Operations, 2nd 3rd Edition. Schnepf (~~2010~~ **2019**). Sudbury, MA: Jones & Bartlett.

Hazardous Materials for First Responders, 4th 5th edition. International Fire Service Training Association. (~~2010~~ **2017**). Stillwater, OK: Fire Protection Publications, Oklahoma State University.

Hazardous Materials: Managing the Incident, 4th edition. Noll, G. G., Hildebrand, M. S., Schnepf, R. & Rudner, G.D. (2014). Burlington, MA: Jones and Bartlett.

Hazardous Materials/Weapons of Mass Destruction Response Handbook, 6th/2013 edition. McGowan, T. (2012). Quincy, MA: National Fire Protection Association.

NFPA 472: Standard for Professional Competence of Responders to Hazardous Materials Incidents. (2013 ed.). Quincy, MA: NFPA Publications. National Fire Protection Association

NIOSH Pocket Guide to Chemical Hazards. National Institute for Occupational Safety and Health. (Most current edition). Cincinnati, OH: US Department of Health and Human Services, Public Health Service, Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health. <http://www.cdc.gov/niosh/npg/>

Standards Manual for Fire Protection Personnel. Texas Commission on Fire Protection. (Most current edition). Austin, TX: Texas Commission on Fire Protection.

Recommended References

The most current edition of the following publications and media are recommended (not required) supplemental material for program use.

Texts

Bretherick's Handbook of Reactive Chemical Hazards. Urben, P. G., Pitt, M. J., & Bretherick, L. (2007). Amsterdam: Elsevier.

Emergency Care for Hazardous Materials Exposure. Currance, P., Bronstein, A. C., & Clements, B. (2005). St. Louis, MO: Mosby.

Field Guide to Tank Cars. Bureau of Explosives. (2010). Pueblo, Colorado: Association of American Railroads.

Fire Protection Guide to Hazardous Materials. 2010 edition. National Fire Protection Association. Quincy, MA: National Fire Protection Association.

Hawley's Condensed Chemical Dictionary. 15th edition. Lewis, R. J. (2007). West Sussex: Wiley.

Hazardous Materials: Managing the Incident Field Operations Guide. 2nd edition. Bevelacqua, A. S., (2014). Jones and Bartlett.

Media

Chlorine Emergencies: An Overview for First Responders. Chlorine Institute. (2007). Arlington, VA: The Chlorine Institute.

Hazardous Materials Containment Series. Action Training Systems. [4 Disc DVD Set] Hazardous materials containment - series of 4 titles. Seattle, WA: Action Training Systems.

Hazardous Materials: Managing the Incident DVD Series. Massingham, G., Noll, G. G., Hildebrand, M. S., & Noll, G. G. (2005). [8 Disc DVD Set] Edgartown, MA: Emergency Film Group.

How to Use the Chlorine Institute Emergency Kit "A" for 100 lb. and 150 lb. Chlorine Cylinders. Chlorine Institute. (Sept. 2013). New York, NY: The Chlorine Institute. [DVD + pamphlet]

How to Use the Chlorine Institute Emergency Kit "B" for Chlorine Ton Containers. New Chlorine Institute. (Dec. 2013). York, NY: The Chlorine Institute. [DVD + pamphlet]

How to Use the Chlorine Institute Emergency Kit "C" for Chlorine Tank Cars and Tank Trucks. Chlorine Institute. (Feb. 2014). New York, NY: The Chlorine Institute. [DVD + pamphlet]

5. Discussion and possible action regarding proposed amendments to 37 TAC, Chapter 427, Training Facility Certification.

CHAPTER 427**TRAINING FACILITY CERTIFICATION****SUBCHAPTER C****TRAINING PROGRAMS FOR ON-SITE AND DISTANCE TRAINING PROVIDERS****§427.307. On-Site and Distance Training Provider Staff Requirements.**

- (a) The chief training officer of a training facility, as a minimum, must possess Fire Service Instructor III certification.
- (b) All training instructors (except guest instructors) must possess fire instructor certification. The instructor(s) must be certified in the applicable discipline or be approved by the commission to instruct in the applicable subject.
- (c) The lead instructor, as a minimum, shall possess a Fire Service Instructor II certification and must be certified by the commission in the applicable discipline, except as stated in subsections (h)(2), ~~and~~ (i)(2), **or (j)** of this section.
- (d) Guest instructors are not required to be certified as instructors.
- (e) In order to teach fire officer certification courses, an individual who does not meet the requirements of subsection (a) or (c) of this section, shall possess a minimum of a bachelor's degree in management or its equivalent.
- (f) In order to teach an instructor certification training course for Fire Service Instructor I, an individual must hold one of the following three qualifications:
 - (1) A Fire Service Instructor II certification or higher; or
 - (2) A Bachelor's degree with the following:
 - (A) as a minimum, a minor in education; and
 - (B) three years of teaching experience in a fire department, department of a state agency, educational institution, or political subdivision of the state, during which time the individual taught a minimum of 200 class hours; or
 - (3) An associate degree with the following:
 - (A) twelve semester hours of education instructional courses; and
 - (B) five years of teaching experience in a fire department, department of a state agency, educational institution, or political subdivision of the state, during which time the individual taught a minimum of 400 class hours.
- (g) In order to teach an instructor certification training course for Fire Service Instructor II or III, an individual must hold one of the following three qualifications:
 - (1) A Fire Service Instructor III certification; or
 - (2) A Bachelor's degree with the following:
 - (A) as a minimum, a minor in education; and

(B) three years of teaching experience in a fire department, department of a state agency, educational institution, or political subdivision of the state, during which time the individual taught a minimum of 200 class hours; or

(3) An associate degree with the following:

(A) twelve semester hours of education instructional courses; and

(B) five years of teaching experience in a fire department, department of a state agency, educational institution, or political subdivision of the state, during which time the individual taught a minimum of 400 class hours.

(h) In order to teach a certification course for Basic Wildland Fire Protection:

(1) The unit instructor must hold Intermediate Wildland Fire Protection certification or be approved by the commission to instruct a Basic Wildland course and hold:

(A) commission Fire Service Instructor I certification or higher; or

(B) instructor credentials as required by the current National Wildfire Coordinating Group (NWCG) Field Manager's Course Guide (901-1) or current Texas Intrastate Fire Mutual Aid System (TIFMAS) guidelines for this level of course.

(2) The lead instructor must hold NWCG or TIFMAS Single Resource Boss qualification and hold:

(A) commission Fire Service Instructor I certification or higher; or

(B) instructor credentials as required by the current NWCG Field Manager's Course Guide (901-1) or current TIFMAS guidelines for this level of course.

(i) In order to teach a certification course for Intermediate Wildland Fire Protection:

(1) The unit instructor must hold an Intermediate Wildland Fire Protection certification or be approved by the commission to instruct an Intermediate Wildland course and hold:

(A) commission Fire Service Instructor I certification or higher; or

(B) instructor credentials as required by the current NWCG Field Manager's Course Guide (901-1) or current TIFMAS guidelines for this level of course.

(2) The lead instructor must hold NWCG or TIFMAS Single Resource Boss qualification and:

(A) commission Fire Service Instructor I certification or higher; or

(B) instructor credentials as required by the current NWCG Field Manager's Course Guide (901-1) or current TIFMAS guidelines for this level of course.

(j) In order to teach a TEEEX Pro Board course for which a training prior approval has been submitted and approved by the commission:

(1) The training instructor must meet the applicable requirements of this section or possess Fire Instructor and discipline-specific Pro Board credentials issued by TEEEX.

(2) The lead instructor must meet the applicable requirements of this section or, as a minimum possess Fire Instructor II and discipline-specific Pro Board credentials issued by TEEEX.

6. Discussion and possible action regarding proposed amendments to 37 TAC, Chapter 449, Head of a Fire Department.

CHAPTER 449

HEAD OF A FIRE DEPARTMENT

SUBCHAPTER A

MINIMUM STANDARDS FOR HEAD OF A SUPPRESSION FIRE DEPARTMENT

§449.1. Minimum Standards for the Head of a Suppression Fire Department.

(a) An individual who becomes employed and is appointed as the head of a suppression fire department must be certified by the commission as Head of a Suppression Fire Department within one year of appointment. The requirements in this subchapter also apply to an individual who is appointed on an interim basis to head of a suppression fire department.

(b) Prior to being appointed as the head of a suppression fire department, an individual must:

(1) hold a Texas Commission on Fire Protection certification as fire protection personnel in any discipline that has a commission approved curriculum that requires structural fire protection personnel certification. The individual must have five years of experience in a full-time fire suppression position or ten years in a part-time fire suppression position at the time of appointment, or attain the required years of experience within one year of the appointment; or

(2) provide documentation of accreditation from the International Fire Service Accreditation Congress that is deemed equivalent to the commission's approved basic fire suppression curriculum, and provide documentation in the form of a sworn non-self-serving affidavit of five years of experience in a full-time fire suppression position in a jurisdiction other than Texas; or

(3) provide documentation in the form of a sworn non-self-serving affidavit of ten years of experience as an employee of a local governmental entity in a full-time structural fire protection personnel position in a jurisdiction other than Texas; or

(4) provide documentation in the form of a sworn non-self-serving affidavit of ten years of experience as an active volunteer fire fighter in one or more volunteer fire departments. The ten years of volunteer service must include documentation of attendance at 40% of the drills for each year and attendance of at least 25% of a department's emergencies in a calendar year while a member of a volunteer fire department or departments with ten or more active members that conducts a minimum of 48 hours of drills in a calendar year; or

(5) document a combined total of five years of experience using:

(A) full-time experience while holding a commission certification as referenced in paragraph (1) of this subsection; and

(B) provide documentation in the form of a sworn non-self-serving affidavit of experience as an employee of a local governmental entity in a full-time structural fire protection position in a jurisdiction other than Texas as referenced in paragraph (3) of this subsection, with two years of affidavit time counted as one year of experience for purposes of this qualification; or

(C) provide documentation in the form of a sworn non-self-serving affidavit of experience as an active volunteer fire fighter and meeting the attendance requirements referenced in paragraph (4) of this subsection, with two years of affidavit time counted as one year of experience; or

(6) document a combined total of five years of experience using:

(A) full-time experience while holding a commission certification as referenced in paragraph (1) of this subsection; and

(B) documentation of accreditation from the International Fire Service Accreditation Congress that is deemed equivalent to the commission's approved basic fire suppression curriculum while appointed to a full-time fire suppression position in a jurisdiction other than Texas. Documentation of experience will be in the form of a sworn non-self-serving affidavit; or

(7) document a combined total of five years of experience using:

(A) documentation of accreditation from the International Fire Service Accreditation Congress that is deemed equivalent to the commission's approved basic fire suppression curriculum while appointed to a full-time fire suppression position in a jurisdiction other than Texas, with documentation of experience being in the form of a non-self-serving affidavit; and

(B) provide documentation in the form of a sworn non-self-serving affidavit of experience as an employee of a local governmental entity in a full-time structural fire protection position in a jurisdiction other than Texas as referenced in paragraph (3) of this subsection, with two years of affidavit time counted as one year of experience for purposes of this qualification; or

(C) provide documentation in the form of a sworn non-self-serving affidavit of experience as an active volunteer fire fighter and meeting the attendance requirements referenced in paragraph (4) of this subsection, with two years of affidavit time counted as one year of experience for purposes of this qualification; or

(8) document a combined total of ten years of experience using:

(A) documentation in the form of a sworn non-self-serving affidavit of experience as an employee of a local governmental entity in a full-time structural fire protection position in a jurisdiction other than Texas as referenced in paragraph (3) of this subsection; and

(B) documentation in the form of a sworn non-self-serving affidavit of experience as an active volunteer fire fighter and meeting the attendance requirements referenced in paragraph (4) of this subsection.

- (c) Holding the Head of a Fire Suppression Fire Department certification does not qualify an individual for any other certification. An individual who seeks certification in another discipline must meet the requirements for that discipline.
- (d) Nothing contained in this chapter shall be construed to supersede Chapter 143, Local Government Code, **regarding** [in regard to] appointment **as the** [of a] head of a suppression fire department.
- (e) Individuals certified as the Head of a Suppression Fire Department must meet the continuing education requirement as provided for in Chapter 441 of this title (relating to Continuing Education).
- (f) An individual certified as Head of a Suppression Fire Department under this subchapter may engage in fire fighting activities only as the head of a suppression fire department. These activities include incident command, direction of fire fighting activities or other emergency

activities typically associated with fire fighting duties, i.e. rescue, confined space and hazardous materials response.

SUBCHAPTER B

MINIMUM STANDARDS FOR HEAD OF A PREVENTION ONLY FIRE DEPARTMENT

§449.201. Minimum Standards for the Head of a Prevention Only Fire Department.

- (a) An individual who becomes employed and is appointed as the head of a prevention only fire department must be certified by the commission as Head of a Prevention Only Fire Department, within one year of appointment. The requirements in this subchapter also apply to an individual who is appointed on an interim basis to head of a prevention only fire department.
- (b) Prior to being appointed as the head of a prevention only fire department, an individual must:
- (1) hold a Texas Commission on Fire Protection certification as a fire inspector, fire investigator, or arson investigator. The individual must have five years of experience in a full-time fire prevention position or ten years in a part-time fire prevention position at the time of appointment, or attain the required years of experience within one year of the appointment; or
 - (2) possess valid documentation of accreditation from the International Fire Service Accreditation Congress that is deemed equivalent to the commission's approved basic arson investigator, fire investigator, or fire inspector curriculum and provide documentation in the form of a sworn non-self-serving affidavit of five years of experience in a full-time fire prevention position in a jurisdiction other than Texas; or
 - (3) provide documentation in the form of a sworn non-self-serving affidavit of ten years of experience as an employee of a local governmental entity in a full-time fire inspector, fire investigator, or arson investigator position in a jurisdiction other than Texas; or
 - (4) provide documentation in the form of a sworn non-self-serving affidavit of ten years of experience as a certified fire investigator, fire inspector, or arson investigator as a part-time fire prevention employee; or
 - (5) provide documentation in the form of a sworn non-self-serving affidavit of ten years of fire prevention experience as an active volunteer fire inspector, fire investigator, or arson investigator; or [.]

(6) document a combined total of five years of experience using:

- (A) full-time experience while holding commission certification as a fire inspector, fire investigator, or arson investigator; and**
- (B) provide documentation in the form of a sworn non-self-serving affidavit of experience as an employee of a local governmental entity in a full-time fire inspector, fire investigator, or arson investigator position in a jurisdiction other than Texas as referenced in paragraph (3) of this subsection, with two years of affidavit time counted as one year of experience for purposes of this qualification; or**
- (C) provide documentation in the form of a sworn non-self-serving affidavit of experience as an active volunteer fire inspector, fire investigator, or arson investigator in one or more volunteer fire departments, with two years of affidavit time counted as one year of experience for purposes of this qualification; or**

(7) document a combined total of five years of experience using:

(A) full-time experience while holding commission certification as a fire inspector, fire investigator, or arson investigator; and

(B) documentation of accreditation from the International Fire Service Accreditation Congress that is deemed equivalent to the commission's approved basic fire investigator or fire inspector curriculum while appointed to a full-time fire prevention position in a jurisdiction other than Texas. Documentation of experience will be in the form of a sworn non-self-serving affidavit; or

(8) document a combined total of five years of experience using:

(A) documentation of accreditation from the International Fire Service Accreditation Congress that is deemed equivalent to the commission's approved basic fire investigator or fire inspector curriculum while appointed to a full-time fire prevention position in a jurisdiction other than Texas, with documentation of experience being in the form of a non-self-serving affidavit; and

(B) provide documentation in the form of a sworn non-self-serving affidavit of experience as an employee of a local governmental entity in a full-time fire inspector, fire investigator, or arson investigator position in a jurisdiction other than Texas as referenced in paragraph (3) of this subsection, with two years of affidavit time counted as one year of experience for purposes of this qualification; or

(C) provide documentation in the form of a sworn non-self-serving affidavit of experience as an active volunteer fire inspector, fire investigator, or arson investigator in one or more volunteer fire departments, with two years of affidavit time counted as one year of experience for purposes of this qualification; or

(9) document a combined total of ten years of experience using:

(A) documentation in the form of a sworn non-self-serving affidavit of experience as an employee of a local governmental entity in a full-time fire inspector, fire investigator, or arson investigator position in a jurisdiction other than Texas as referenced in paragraph (3) of this subsection; and

(B) documentation in the form of a sworn non-self-serving affidavit of experience as an active volunteer fire inspector, fire investigator, or arson investigator in one or more volunteer fire departments.

- (c) Holding the Head of a Prevention Only Fire Department certification does not qualify an individual for any other certification. An individual who seeks certification in another discipline must meet the requirements for that discipline.
- (d) Nothing contained in this chapter shall be construed to supersede Chapter 143, Local Government Code, regarding appointment as the head of a prevention only fire department.
- (e) Individuals certified as the Head of a Prevention Only Fire Department must meet the continuing education requirement as provided for in Chapter 441 of this title (relating to Continuing Education).

7. Discussion and possible action regarding rule review for 37 TAC, Chapter 435, Fire Fighter Safety.

CHAPTER 435

FIRE FIGHTER SAFETY

§435.1. Protective Clothing.

A regulated fire department shall:

- (1) purchase, provide, and maintain a complete set of protective clothing for all fire protection personnel who would be exposed to hazardous conditions from fire or other emergencies or where the potential for such exposure exists. A complete set of protective clothing shall consist of garments including bunker coats, bunker pants, boots, gloves, helmets, and protective hoods, worn by fire protection personnel in the course of performing fire-fighting operations;
- (2) ensure that all protective clothing which are used by fire protection personnel assigned to fire suppression duties comply with the minimum standards of the National Fire Protection Association suitable for the tasks the individual is expected to perform. The National Fire Protection Association standard applicable to protective clothing is the standard in effect at the time the entity contracts for new, rebuilt, or used protective clothing; and
- (3) maintain, provide to the commission annually and/or upon request, and comply with a departmental standard operating procedure regarding the use, selection, care, and maintenance of protective clothing which complies with NFPA 1851, Standard on Selection, Care, and Maintenance of Structural Fire Fighting Protective Ensembles.
- (4) To ensure that protective clothing for fire protection personnel continues to be suitable for assigned tasks, risk assessments conducted in accordance with NFPA 1851 shall be reviewed and revised as needed, but in any case, not more than five years following the date of the last risk assessment.

§435.3. Self-Contained Breathing Apparatus.

The employing entity shall:

- (1) purchase, provide, and maintain a complete self-contained breathing apparatus for each on-duty fire protection personnel who engage in operations where IDLH atmospheres may be encountered, where the atmosphere is unknown or would be exposed to hazardous atmospheres from fire or other emergencies or where the potential for such exposure exists;
- (2) ensure that all self-contained breathing apparatus used by fire protection personnel complies with the minimum standards of the National Fire Protection Association identified in NFPA 1981, Standard on Open-Circuit Self-Contained Breathing Apparatus for Fire Fighters;
 - (A) the National Fire Protection Association standard applicable to a self-contained breathing apparatus is the standard in effect at the time the entity contracts for new, rebuilt, or used self-contained breathing apparatus;
 - (B) an entity may continue to use a self-contained breathing apparatus in use or contracted for before a change in the National Fire Protection Association standard, unless the commission determines that the continued use of the self-contained breathing apparatus constitutes an undue risk to the wearer, in which case the commission shall order that the use be discontinued and shall set an appropriate date for compliance with the revised standard;

- (3) develop an air quality program that complies with the most recent edition of the NFPA 1989 Standard on Breathing Air Quality for Emergency Services Respiratory Protection;
- (4) maintain and supply upon request by the commission, records and reports documenting compliance with commission requirements concerning self-contained breathing apparatus and breathing air. Records of all tests shall be made and the records shall be retained for a period of no less than three years;
- (5) maintain and provide upon request by the commission, a departmental standard operating procedure regarding the use of self-contained breathing apparatus; and
- (6) maintain and provide upon request by the commission, a department standard operating procedure regarding the selection, care, and maintenance of self-contained breathing apparatus that complies with the most recent edition of the NFPA 1852 Standard on Selection, Care, and Maintenance of Open-Circuit Self-Contained Breathing Apparatus (SCBA).

§435.5. Commission Recommendations.

The commission recommends that all employing entities use as a guide the following publications:

- (1) NFPA 1403 "Live Fire Training Evolutions";
- (2) NFPA 1500 "Fire Department Occupational Safety and Health Program;"
- (3) IAFF/IAFC - "Fire Service Joint Labor Management Wellness-Fitness Initiative."

§435.7. Fire Department Staffing Studies.

- (a) Section 419.022(a)(4) Texas Government Code provides that the commission may on request, assist in performing staffing studies of fire departments. Staffing studies must take into consideration all the objectives and missions of the fire department. Many staffing studies have been developed that can be used to assist in evaluating the needs of a fire department.
- (b) A city should ultimately decide on the level of fire protection it is willing to provide to its citizens. The city and fire department should, as a minimum, address the needs of prevention, investigation and suppression as outlined in the appropriate National Fire Protection Association Standards. That decision should be based on facts, the safety of its citizens, and the safety of the fire fighters providing that protection.
- (c) The commission will assist by maintaining information pertinent to fire department staffing. The information shall be maintained in the Ernest A. Emerson Fire Protection Resource Library at the commission. Copies shall be made available, free of charge, to anyone requesting such information to the extent permitted by copyright laws.

§435.9. Personal Alert Safety System (PASS).

The employing entity shall:

- (1) purchase, provide, and maintain a PASS device for each on duty fire protection personnel who engage in operations where IDLH atmospheres may be encountered, or where the atmosphere is unknown, or where hazardous conditions from fire or other emergencies exist, or where the potential for such exposure exists;

- (2) ensure that all PASS devices used by fire protection personnel comply with the minimum standards of the National Fire Protection Association identified in NFPA 1982, Standard on Personal Alert Safety Systems (PASS) for Fire Fighters:
- (A) the National Fire Protection Association standard applicable to a PASS device is the standard in effect at the time the entity contracts for new, rebuilt, or used PASS devices;
 - (B) an entity may continue to use a PASS device that meets the requirements of an earlier edition of NFPA 1982, unless the commission determines that the continued use of the PASS device constitutes an undue risk to the wearer, in which case the commission shall order that the use be discontinued and shall set an appropriate date for compliance with the revised standard;
- (3) ensure that the PASS device assigned to an individual user be inspected at the beginning of each duty period and before each use.
- (4) maintain and provide upon request by the commission, a departmental standard operating procedure regarding the proper use, selection, care and maintenance of PASS devices.

§435.11. Incident Management System (IMS).

- (a) The fire department shall develop, maintain and use an incident management system.
- (b) The incident management system shall:
 - (1) include a written operating procedure for the management of emergency incidents;
 - (2) require that the IMS be used at all emergency incidents;
 - (3) require operations to be conducted in a manner that recognizes hazards and assists in the prevention of accidents and injuries;
 - (4) require that all fire protection personnel be trained in the use of the IMS; and
 - (5) require that the IMS be applied to all drills, exercises and all other situations that involve hazards similar to those encountered at an actual emergency.
- (c) The IMS shall meet the requirements of the applicable sections of the NFPA 1561, Standard on Fire Department Incident Management System.
- (d) The commission recommends departments follow the National Incident Management System (NIMS) when developing their incident management system.

§435.13. Personnel Accountability System.

- (a) The fire department shall develop, maintain and use a personnel accountability system that provides for a rapid accounting of all personnel at an emergency incident.
- (b) The accountability system shall:
 - (1) require all fire protection personnel be trained in the use of the accountability system;
 - (2) require that the fire protection personnel accountability system be used at all incidents;
 - (3) require that all fire protection personnel operating at an emergency incident to actively participate in the personnel accountability system; and

- (4) require that the incident commander be responsible for the overall personnel accountability system for the incident.
- (c) The fire department shall be responsible for developing the system components required to make the personnel accountability system effective.
- (d) The personnel accountability system shall meet the minimum standards required by the National Fire Protection Association 1561, Standard on Fire Department Incident Management System. If the standard is revised, the fire department shall have one (1) year from the effective date of the new standard to comply.

§435.15. Operating At Emergency Incidents.

- (a) The fire department shall develop, maintain and use a standard operating procedure for fire protection personnel operating at emergency incidents.
- (b) The standard operating procedure shall:
 - (1) specify an adequate number of personnel to safely conduct emergency scene operations;
 - (2) limit operations to those that can be safely performed by personnel at the scene;
 - (3) require all personnel to be trained in and use the standard operating procedures; and
 - (4) comply with §435.17 (Procedures for Interior Structural Fire Fighting).
- (c) The fire department may use standards established by the National Fire Protection Association for fire protection personnel operating at an emergency incident.

§435.17. Procedures for Interior Structural Fire Fighting (2-In /2-Out Rule).

- (a) The fire department shall develop written procedures that comply with the Occupational Safety and Health Administration's Final Rule, 29 CFR Section 1910.134(g)(4) by requiring:
 - (1) a team of at least four fire protection personnel must be assembled before an interior fire attack can be made when the fire has progressed beyond the incipient stage;
 - (2) at least two fire protection personnel to enter the IDLH atmosphere and remain in visual or voice (not radio) contact with each other;
 - (A) Visual means that the fire protection personnel must be close enough to see each other.
 - (B) Voice means that the fire protection personnel of the entry team must be close enough to speak to one another without the use of radios.
 - (3) at least two fire protection personnel remain located outside the IDLH atmosphere to perform rescue of the fire protection personnel inside the IDLH atmosphere;
 - (4) all fire protection personnel engaged in interior structural fire fighting use self-contained breathing apparatus and be clothed in a complete set of protective clothing as identified in Chapter 435;
 - (5) all fire protection personnel located outside the IDLH atmosphere be equipped with appropriate retrieval equipment where retrieval equipment would contribute to the rescue of the fire protection personnel that have entered the IDLH atmosphere;

- (6) one of the outside fire protection personnel must actively monitor the status of the inside fire protection personnel and not be assigned other duties. The second outside fire protection personnel may be assigned to an additional role, including, but not limited to, incident commander, safety officer, driver-operator, command technician or aide, or fire fighter/EMS personnel, so long as this individual is able to perform assistance or rescue activities without jeopardizing the safety or health of any fire protection personnel working at the scene;
 - (7) the fire protection personnel outside the IDLH atmosphere must remain in communication (including, but not limited to, radio) with the fire protection personnel in the IDLH atmosphere. Use of a signal line (rope) as a communications instrument for interior fire fighting is not permitted by the commission. This does not preclude the use of rescue guide ropes (guide line or lifeline or by what ever name they may be called) used during structural searches; and
 - (8) each outside fire protection personnel must have a complete set of protective clothing and self-contained breathing apparatus, as identified in Chapter 435, immediately accessible for use if the need for rescue activities inside the IDLH atmosphere is necessary.
- (b) The fire department shall comply with the 2-in/2-out rule as described in this section except in an imminent life-threatening situation when immediate action could prevent the loss of life or serious injury before the team of four fire protection personnel are assembled.

§435.19. Enforcement of Commission Rules.

- (a) The commission shall enforce all commission rules at any time, including, but not limited to, commission investigations, fire department inspections, or upon receiving a written complaint from an identified person or entity of an alleged infraction of a commission rule.
- (b) The commission shall not provide prior notification of an inspection to a fire department.
- (c) Upon receipt of a signed complaint alleging a violation of a commission rule, the commission shall have 30 days to initiate an investigation and report back to the complainant its progress.
- (d) Upon substantiating the validity of a written complaint, the commission shall follow the procedures outlined in Texas Government Code, Chapter 419, §419.011(b) and (c).

§435.21. Fire Service Joint Labor Management Wellness-Fitness Initiative.

- (a) A fire department shall assess the wellness and fitness needs of the personnel in the department. The procedure used to make this assessment shall be written and made available for Commission inspection.
- (b) A fire department shall develop and maintain a standard operating procedure to address those needs.
- (c) The approach to the fitness needs of the department shall be based on the local assessment and local resources.
- (d) The standard operating procedure shall be made available to the Commission for inspection.

§435.23. Fire Fighter Injuries.

- (a) A fire department shall report all Texas Workers' Compensation Commission reportable injuries that occur to on-duty regulated fire protection personnel on the Commission form.

- (b) Minor injuries are those injuries that do not result in the fire fighter missing more than one duty period or does not involve the failure of personal protective equipment. Minor injuries shall be reported within 30 business days of the injury event.
- (c) Major injuries are those that require the fire fighter to miss more than one duty period. Major injuries shall be reported within five business days of the injury event.
- (d) Investigatable injuries are those resulting from the malfunction of personal protective equipment, failure of personal protective equipment to protect the fire fighter from injury, or injuries sustained from failure to comply with any provision of Commission mandated department SOPs. Investigatable injuries shall be reported within five business days of the injury event.
- (e) The regulated entity shall secure any personal protective equipment involved in a fire fighter injury and shall be made available to the Commission for inspection.

§435.25. Courage to be Safe So Everyone Goes Home Program.

- (a) In an effort to improve firefighter safety in the State of Texas, all regulated entities will ensure that the National Fallen Firefighters Foundation's "Courage to be Safe So Everyone Goes Home" program be completed as part of the continuing education required for certified fire protection personnel by. Individuals will be credited with four hours of continuing education credit for completing this program.
- (b) All fire protection personnel will be required to complete the National Fallen Firefighters Foundation's "Courage to be Safe So Everyone Goes Home" program training within one year following appointment to a fire department if the individual has not previously completed the program.
- (c) Departments will report the completion of training through the commission's web based reporting system.
- (d) Failure to complete the National Fallen Firefighters Foundation's "Courage to be Safe So Everyone Goes Home" program before the required deadlines will be considered a violation of continuing education rules found in Chapter 441 of this title (relating to Continuing Education).

§435.27. Live Fire Training Structure Evolutions.

The most current edition of NFPA 1403, Standard on Live Fire Training Evolutions, shall be used as a guide when developing standard operating procedures for conducting live fire training. The following requirements shall apply for all Live Fire Training Structure Evolutions conducted.

- (1) The officer in charge or instructor will ensure that the water supply rate and duration for each individual Live Fire Training Structure Evolution is adequate to control and extinguish the training fire, the supplies necessary for backup lines to protect personnel, and any water needed to protect exposed property.
- (2) The instructor-in-charge shall assign the following personnel:
 - (A) One instructor to each functional crew, which shall not exceed five students.
 - (B) One instructor to each backup line.
 - (C) Additional personnel to backup lines to provide mobility.

- (D) One additional instructor for each additional functional assignment.
- (3) The officer in charge or instructor will ensure that the buildings or props being utilized for live fire training are in a condition that would not pose an undue safety risk.
- (4) A safety officer shall be appointed for all Live Fire Training Structure Evolutions. The safety officer shall have the authority, regardless of rank, to alter, suspend or control any aspect of the operations when, in his or her judgment, a potential or actual danger, accident, or unsafe condition exists. The safety officer shall not be assigned other duties that interfere with safety responsibilities.
- (5) No person(s) shall play the role of a victim inside the building.
- (6) Prior to the ignition of any fire, instructors shall ensure that all personal protective clothing and/or self contained breathing apparatus are NFPA compliant and being worn in the proper manner.
- (7) Prior to conducting any live fire training, a pre-burn briefing session shall be conducted. All participants shall be required to conduct a walk-through of the structure in order to have a knowledge of, and familiarity with, the layout of the building and to be able to facilitate any necessary evacuation of the building.
- (8) A standard operating procedure shall be developed and utilized for Live Fire Training Structure Evolutions. The standard operating procedure shall include, but not be limited to:
- (A) a Personal Alert Safety System (PASS). A PASS device shall be provided for all participating in live fire training and shall meet the requirements in §435.9 of this title (relating to Personal Alert Safety System (PASS));
 - (B) a Personnel Accountability System that complies with §435.13 of this title (relating to Personnel Accountability System) shall be utilized;
 - (C) an Incident Management System;
 - (D) use of personal protective clothing and self-contained breathing apparatus;
 - (E) an evacuation signal and procedure; and
 - (F) pre-burn, burn and post-burn procedures.

§435.29. Federal Highway Administration Traffic Incident Management Program.

- (a) In an effort to improve firefighter safety in the State of Texas, all regulated entities will ensure that the Federal Highway Administration Traffic Incident Management program or an equivalent course that is approved by the commission be completed as part of the continuing education required for certified fire protection personnel by December 1, 2020. Individuals will be credited with four hours of continuing education credit for completing this program.
- (b) All regulated fire protection personnel must complete the Federal Highway Administration Traffic Incident Management program or an equivalent course that is approved by the commission prior to December 1, 2020.
- (c) All fire protection personnel appointed after December 1, 2020 will be required to complete the Federal Highway Administration Traffic Incident Management program training or an equivalent course that is approved by the commission within one year of appointment to a fire department.

- (d) Departments will report the completion of training through the commission's web based reporting system.
- (e) Failure to complete the Federal Highway Administration Traffic Incident Management program or an equivalent course that is approved by the commission before the required deadline will be considered a violation of continuing education rules found in Chapter 441 of this title (relating to Continuing Education).

- 8. Discussion of the 2018 data collected on fire fighter injuries, and possible action on developing recommendations to be submitted to the commission for approval and submission to the State Fire Marshal's Office.**

TEXAS COMMISSION ON FIRE PROTECTION INJURY REPORT

January 1, 2018 to December 31, 2018



TEXAS COMMISSION ON FIRE PROTECTION

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Executive Summary

This report includes the abstract, mission, reports, information and data collected by the Texas Commission on Fire Protection's injury reporting program. The report includes fire fighter injuries reported to the Texas Commission on Fire Protection in 2018, with charts and graphs depicting the collected information. The report also compares Texas fire fighter injury statistics with statistics gathered by the National Fire Protection Association (NFPA) in 2017.

Under Texas Government Code §419.048, the Texas Commission on Fire Protection is charged with developing and establishing criteria to receive and analyze injury information pertaining to Texas fire fighters. The commission reviews this information to develop recommendations to help reduce fire protection personnel injuries. The commission provides this information to the State Fire Marshal's Office (SFMO) by September 1 of each year for inclusion in the SFMO's annual Firefighter Fatality Investigations Report. The commission has enacted rules about reporting injuries in the Texas Administrative Code (TAC) Title 37, Chapter 435, and has established the criteria and policies for reporting and analyzing the information.

The commission originally built the data systems necessary to gather this information in 2010. In 2017 the data systems were then migrated from a Microsoft Access database structure to a new system which was developed in-house and designed specifically to meet the information resource needs of the Texas Commission on Fire Protection. Fine-tuning of this new system is ongoing as we receive feedback from stakeholders. The reporting process is accomplished online. Fire departments regulated by the commission have been notified of the requirement to report. Several volunteer departments, which are not regulated by the commission, are also participating voluntarily.

This report concludes with recommendations from the commission to help reduce the number of fire fighter injuries in Texas and to improve the injury reporting program.

Abstract

This report contains data submitted by regulated and non-regulated entities. The data collected in 2018 was the eighth full year of reporting.

Grand Totals - 2018

Total number of incidents (injury reports) submitted: 3,473

Total number of individuals who sustained an injury: 3,835

Total number of injuries reported: 5,555

Because the injury reporting system was reconfigured in 2018, the information collected by the TCFP has evolved. It's important to note that one incident report can have multiple individuals involved, and **each** of those individuals can have **one or more** injuries. For example:

- Joe and Bob were burned in a fire while on duty. This resulted in:
 - One incident (one injury report), with
 - Two individuals who...
 - Sustained three injuries
 - Joe was burned on the hand and arm (two injuries)
 - Bob was burned on the leg (one injury)

Texas fire departments reported 3,835 injured individuals to the Texas Commission on Fire Protection in calendar year 2018. Of these, 787 occurred during fire suppression activities, representing 21 percent of the total reported injuries (see Table 1). This is nearly the same percentage of fire suppression injuries to the total, which, in 2017, accounted for 20 percent of injuries.

Injuries from emergency medical services (EMS) activities surpassed injuries from fire suppression activities in 2018. EMS activities accounted for 1003 of the 3,835 total reported injuries, or 26 percent of the total injuries. This is the same ratio of EMS injuries to total injuries as in 2017.

After EMS and fire suppression, the next highest number of injuries reported in 2018 occurred in the performance of station duties, with 629, or 16 percent, of the total injuries. This is the same result as in 2017, when 668, or 16 percent, of the total reported injuries occurred in the station.

Wellness/fitness and skills training again rounded out the top five activities with very similar numbers of injuries: 414 wellness/fitness injuries (11 percent of the total) and 401 skills training injuries (10 percent of the total).

The total number of injuries reported in station duties, wellness/fitness activities, and skills training (which are all non-emergency activities) represented a little more than a third (40 percent) of the total injuries. This was nearly the same ratio of non-emergency to emergency activities as in 2017 (which was 37 percent).

Mission

The commission shall gather and evaluate data on fire protection personnel injuries and develop recommendations for reducing injuries.

Why we are collecting injury data

Under Texas Government Code §419.048, the Texas Legislature charged the commission with gathering and evaluating data on injuries. The rules requiring regulated entities to report injuries to the commission are in Texas Administrative Code §435.23. The commission encourages volunteer entities to report injuries so that it can gain as accurate a picture as possible concerning injury trends in the Texas fire service. The injury reporting program began in March 2010.

Information the commission collects

- Minor, serious, critical and fatal injuries
- Activities where fire personnel are injured
- Types of injuries (burns, strain-sprains, wounds, etc.)
- Body parts being injured
- Tasks performed at the time of injury
- Missed time
- Work assignment after injury
- Malfunctions/failures of personal protective equipment (PPE), self-contained breathing apparatus (SCBA), personal alert safety systems (PASS devices) and standard operating procedures (SOPs)

How this will help the fire service

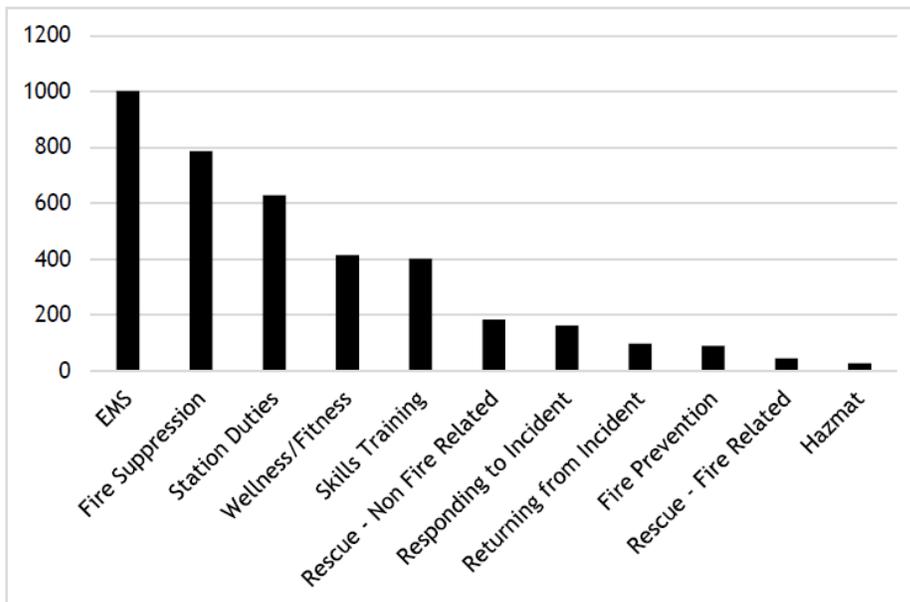
- Identify common injuries
- Identify trends in injuries
- Identify needed training
- Evaluate and find improvements in procedures
- Track lost time injuries (requested by user community)

Fire Protection Personnel Injuries

Table 1: Number of Injured Individuals by Activity and Severity, 2018

Activity	Minor	Serious	Critical	Fatal	Total
EMS	798	153	52	0	1003
Fire Suppression	537	125	120	5	787
Station Duties	408	152	68	1	629
Wellness/Fitness	274	95	45	0	414
Skills Training	258	97	46	0	401
Rescue - Non-Fire Related	152	21	10	0	183
Responding to Incident	88	24	49	0	161
Returning from Incident	54	24	19	0	97
Fire Prevention	65	15	9	0	89
Rescue - Fire Related	33	4	7	0	44
Hazmat	25	1	1	0	27
Total	2692	711	426	6	3835

Figure 1: Total Injured Individuals by Activity, 2018



Injuries by Activity

EMS activities resulted in the highest number of minor injuries for 2018 (see Table 2). The total number of serious fire suppression injuries is down significantly, compared to previous years. (See Table 3. The commission defines a serious injury as one which results in the employee missing one or more full duty shifts.)

Definitions

Minor = Injury that does not result in the employee missing a full duty period.

Serious = Injury that results in the employee missing one or more full duty periods.

Critical = Injury that results in the employee missing at least one full duty period and is admitted to the hospital for care or observation.

Fatal = The injured individual did not survive.

Table 2: Number of Individuals Who Sustained Minor Injuries, 2014 - 2018

Activity	2014		2015		2016		2017		2018	
	Count	Percent								
EMS	900	28.03%	792	28.24%	882	27.89%	929	28.99%	798	29.64%
Fire Suppression	808	25.16%	618	22.03%	866	27.39%	662	20.66%	537	19.95%
Station Duties	465	14.48%	396	14.12%	434	13.73%	481	15.01%	408	15.16%
Skills Training	365	11.37%	288	10.27%	311	9.84%	291	9.08%	258	9.58%
Wellness/Fitness	254	7.91%	278	9.91%	252	7.97%	254	7.93%	274	10.18%
Rescue - Non-Fire Responding to Incident	206	6.42%	204	7.27%	161	5.09%	206	6.43%	152	5.65%
Rescue - Fire Related	105	3.27%	122	4.35%	117	3.70%	156	4.87%	88	3.27%
Rescue - Fire Related	11	0.34%	22	0.78%	20	0.63%	113	3.53%	33	1.23%
Fire Prevention	43	1.34%	41	1.46%	47	1.49%	50	1.56%	65	2.41%
Returning from Incident	42	1.31%	33	1.18%	37	1.17%	42	1.31%	54	2.01%
Hazmat	12	0.37%	11	0.39%	35	1.11%	21	0.66%	25	0.93%
Total	3211	100.00%	2805	100.00%	3162	100.00%	3205	100.00%	2692	100.00%

Table 3: Number of Individuals Who Sustained Serious Injuries, 2014 - 2018

Activity	2014		2015		2016		2017		2018	
	Count	Percent								
Station Duties	160	19.42%	174	19.31%	172	18.76%	185	21.29%	152	21.38%
Fire Suppression	177	21.48%	160	17.76%	179	19.52%	157	18.07%	125	17.58%
EMS	164	19.90%	185	20.53%	158	17.23%	147	16.92%	153	21.52%
Wellness/Fitness	127	15.41%	125	13.87%	146	15.92%	129	14.84%	95	13.36%
Skills Training	104	12.62%	126	13.98%	141	15.38%	120	13.81%	97	13.64%
Responding to Incident	16	1.94%	44	4.88%	36	3.93%	53	6.10%	24	3.38%
Rescue - Non-Fire	38	4.61%	46	5.11%	52	5.67%	27	3.11%	21	2.95%
Returning from Incident	19	2.31%	13	1.44%	18	1.96%	28	3.22%	24	3.38%
Fire Prevention	11	1.33%	12	1.33%	11	1.20%	15	1.73%	15	2.11%
Rescue - Fire Related	3	0.36%	12	1.33%	3	0.33%	7	0.81%	4	0.56%
Hazmat	5	0.61%	4	0.44%	1	0.11%	1	0.12%	1	0.14%
Total	824	100.00%	901	100.00%	917	100.00%	869	100.00%	711	100.00%

Table 4: Number of Individuals Who Sustained Critical Injuries, 2018

Activity	Count	Percent
Fire Suppression	120	28.17%
Station Duties	68	15.96%
EMS	52	12.21%
Responding to Incident	49	11.50%
Skills Training	46	10.80%
Wellness/Fitness	45	10.56%
Returning from Incident	19	4.46%
Rescue - Non-Fire	10	2.35%
Fire Prevention	9	2.11%
Rescue - Fire Related	7	1.64%
Hazmat	1	0.23%
Total	426	100.00%

Table 5: Number of Individuals Who Sustained Fatal Injuries, 2018

Activity	Count	Percent
Fire Suppression	5	83.33%
Station Duties	1	16.67%
Total	6	100.00%

Emergency vs. Non-Emergency Injuries

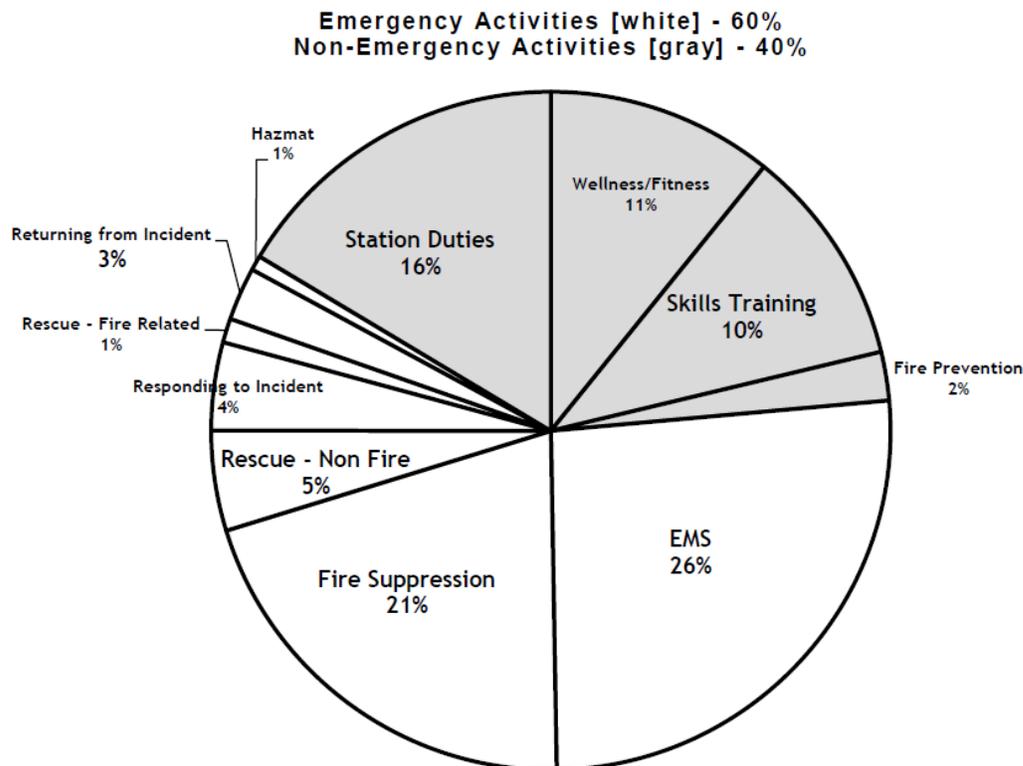
Table 6: Number of Injured Individuals by Emergency Activity and Severity, 2018

Activity	Minor	Serious	Critical	Fatal	Total
EMS	798	153	52	0	1003
Fire Suppression	537	125	120	5	787
Rescue - Non-Fire	152	21	10	0	183
Responding to Incident	88	24	49	0	161
Rescue - Fire Related	33	4	7	0	44
Returning from Incident	54	24	19	0	97
Hazmat	25	1	1	0	27
Total	1687	352	258	5	2302

Table 7: Number of Injured Individuals by Non-Emergency Activity and Severity, 2018

Activity	Minor	Serious	Critical	Fatal	Total
Station Duties	408	152	68	1	629
Skills Training	258	97	46	0	401
Wellness/Fitness	274	95	45	0	414
Fire Prevention	65	15	9	0	89
Total	1005	359	168	1	1533

Figure 2: Percent of Injured Individuals in Emergency and Non-Emergency Activities, 2018

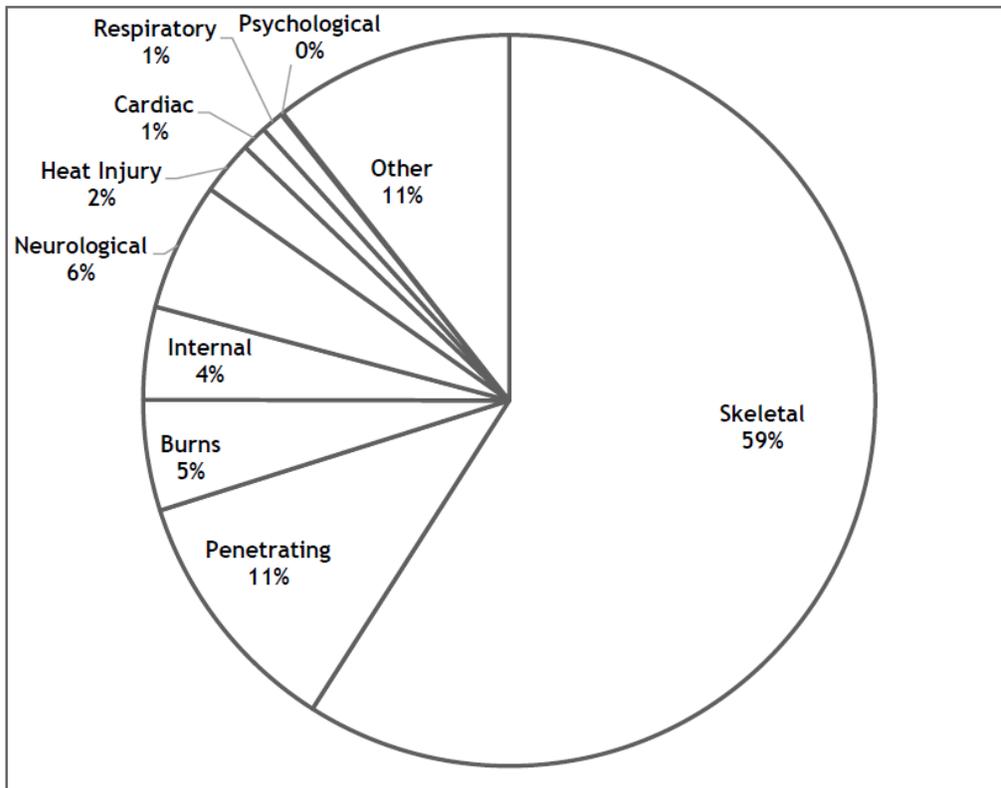


Types of Injuries

Table 8: Types of Injuries, 2018

2018		
Type of Injury	Count	Percent
Skeletal	3279	59.03%
Penetrating	617	11.11%
Burns	272	4.90%
Internal	228	4.10%
Neurological	315	5.67%
Heat Injury	132	2.38%
Cardiac	62	1.12%
Respiratory	56	1.01%
Psychological	5	0.09%
Other	589	10.60%
Total	5555	100.00%

Figure 3: Types of Injuries, 2018

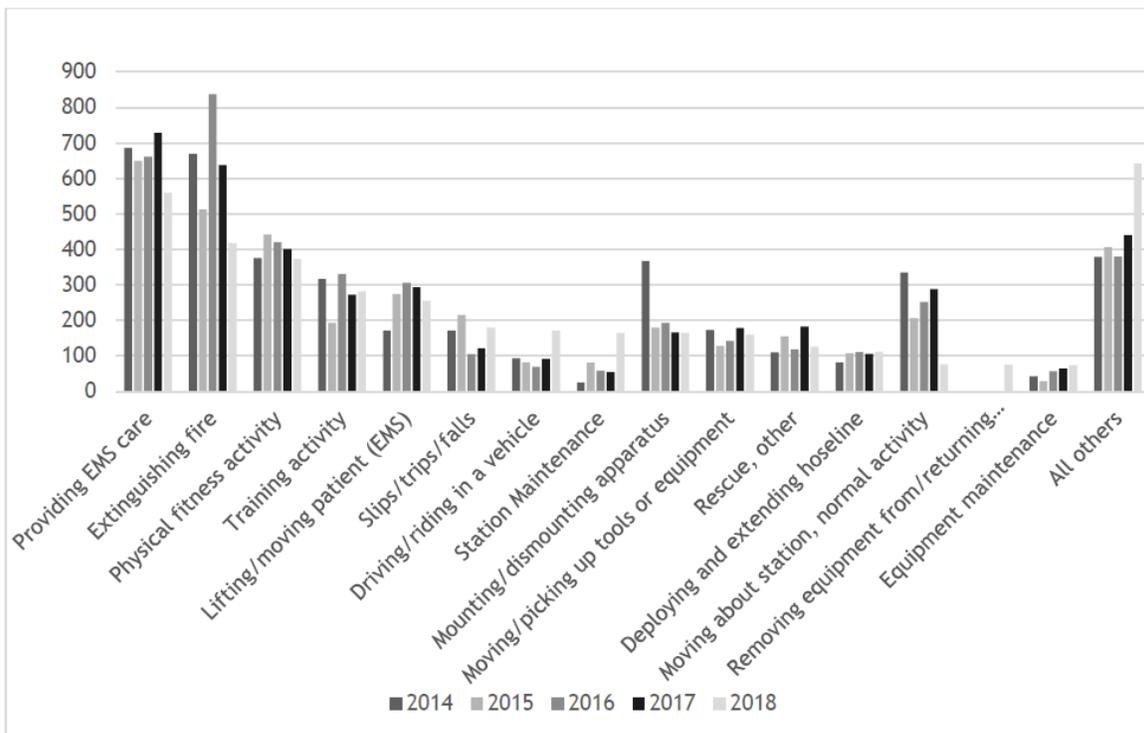


Task at Time of Injury

Table 9: Top 15 Tasks at Time of Injury, 2014 - 2018 (ordered by 2018, descending)

Task	2014	2015	2016	2017	2018
Providing EMS care	686	649	661	728	560
Extinguishing fire	669	513	837	638	418
Physical fitness activity	376	442	420	401	373
Training activity	317	193	331	273	282
Lifting/moving patient (EMS)	171	275	306	294	256
Slips/trips/falls	171	215	105	122	180
Driving/riding in a vehicle	94	82	70	92	171
Station Maintenance	26	81	59	55	165
Mounting/dismounting apparatus	367	180	193	166	165
Moving/picking up tools or equipment	173	128	142	179	160
Rescue, other	110	155	118	183	126
Deploying and extending hoseline	82	108	111	106	112
Moving about station, normal activity	335	206	252	289	76
Removing equipment from/returning equipment to storage	n/a	n/a	n/a	n/a	75
Equipment maintenance	43	29	57	65	74
All others	379	406	380	440	642
Total	4055	3721	4097	4090	3835

Figure 4: Top 15 Tasks at Time of Injury, 2014 - 2018



Injuries by Body Part

Table 10: Injuries by Body Part, 2014 - 2017 (ordered by 2017, descending)

Body Part	2014	2015	2016	2017
Multiple body parts, whole body	901	659	1007	1064
Hand and fingers	345	328	359	365
Knee	367	369	376	315
Hip, lower back, or buttocks	244	316	283	292
Back, except spine	372	207	244	248
Shoulder	230	241	238	221
Ankle	177	202	192	179
Multiple Parts	160	180	124	151
Face	118	140	116	127
Arm, lower, not including elbow or wrist	94	84	109	121
Leg, lower	86	117	132	113
Foot and toes	79	71	85	87
Head	73	69	82	78
Ear	52	60	74	76
Chest	64	40	82	76
Eye	98	75	70	73
Multiple body parts, upper body	27	52	61	73
Elbow	66	51	47	72
Wrist	68	48	74	56
Other body parts injured	265	500	342	303
Total	3886	3809	4097	4090

Because TCFP migrated to a new data management system in 2017, the data collected in 2018 was categorized differently than it had been in the past. This is why Table 8 only goes through 2017, and we now have new tables (9 & 10) for 2018 data.

Table 11: Injuries by Body Part Type, 2018

Body Part by Type	2018
Upper Extremities	1449
Internal	153
Head	537
Back	829
Neck	163
Lower Extremities	1607
Multiple Parts	631
Chest	156
Hip	30
Total	5555

Table 12: Injuries by Body Part Sub-Type, 2018

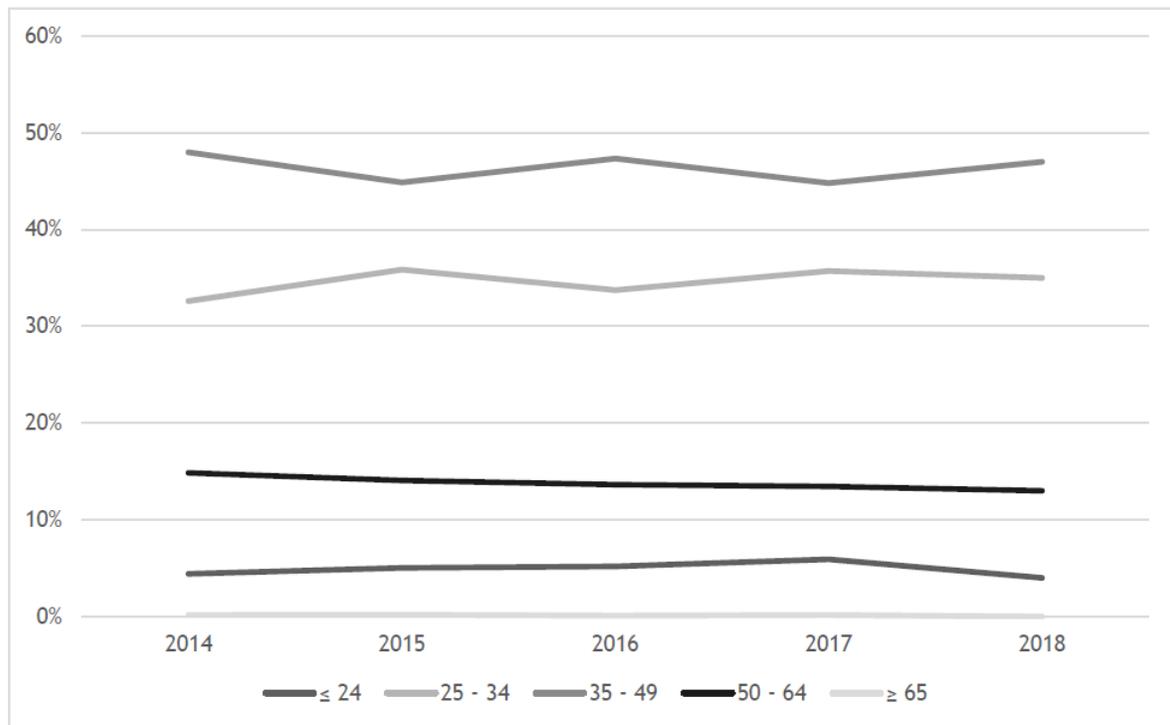
Body Part by Sub-Type	2018
Back: Back	352
Back: Buttocks	1
Back: Lower Back	467
Back: Neck	4
Back: Spine	5
Chest: Abdomen	9
Chest: Abdominal Area	16
Chest: Chest	131
Head: Cheek	22
Head: Chin	9
Head: Ear	138
Head: Eye	90
Head: Face	225
Head: Jaw	1
Head: Mouth	26
Head: Nose	26
Hip: Groin	12
Hip: Hip	14
Hip: Pelvis	4
Internal: Genito-urinary	12
Internal: Heart	5
Internal: Internal	90
Internal: Intestinal tract	5
Internal: Lungs	8
Internal: Stomach	32
Internal: Trachea	1
Lower Extremities: Ankle	365
Lower Extremities: Foot	247
Lower Extremities: Knee	730
Lower Extremities: Lower leg	182
Lower Extremities: Toes	17
Lower Extremities: Upper Leg	66
Multiple Parts: Lower Body	45
Multiple Parts: Unknown	40
Multiple Parts: Upper Body	128
Multiple Parts: Whole Body	418
Neck: Neck	149
Neck: Throat	14
Upper Extremities: Elbow	108
Upper Extremities: Hands	628
Upper Extremities: Lower Back	12
Upper Extremities: Shoulder	395
Upper Extremities: Upper Arm	180
Upper Extremities: Wrist	126
Total	5555

Injuries by Age Group

Table 13: Number of Injured Individuals by Age Group, 2014 - 2018

Age Group	2014		2015		2016		2017		2018	
	Count	Percent								
≤ 24	179	4.41%	187	5.03%	213	5.20%	242	5.92%	164	4.28%
25 - 34	1322	32.60%	1334	35.85%	1382	33.73%	1460	35.70%	1338	34.89%
35 - 49	1945	47.97%	1669	44.85%	1939	47.33%	1832	44.79%	1818	47.41%
50 - 64	602	14.85%	524	14.08%	559	13.64%	550	13.45%	512	13.35%
≥ 65	7	0.17%	7	0.19%	4	0.10%	6	0.15%	3	0.08%
Totals	4055	100.00%	3721	100.00%	4097	100.00%	4090	100.00%	3835	100.00%

Figure 5: Injured Individuals - Percentages by Age Group, 2014 - 2018



Injury Activities Resulting in Lost Time

Table 14: Activities Individuals Were Doing That Resulted in Lost Time Injuries, Totals, 2018

Activity	Count	Days Missed	
		Average	Sum
Fire Suppression	113	33	3876
Station Duties	108	26	3067
EMS	111	37	4513
Skills Training	71	33	2545
Wellness/Fitness	77	32	2186
Responding to Incident	37	33	1242
Returning from Incident	25	53	1327
Rescue - Non-Fire	15	32	525
Fire Prevention	14	28	366
Rescue - Fire Related	1	6	24
Hazmat	1	13	13
Total	573	293	15808

Table 15: Activities Individuals Were Doing That Resulted in Lost Time Injuries, 2018, between 1 and 30 days

Activity	Count	Days Missed	
		Average	Sum
Fire Suppression	84	12	1035
Station Duties	81	11	918
EMS	66	11	737
Wellness/Fitness	55	12	672
Skills Training	47	11	517
Responding to Incident	23	7	183
Returning from Incident	13	14	182
Rescue - Non-Fire	10	9	95
Fire Prevention	9	13	119
Rescue - Fire Related	1	21	21
Hazmat	1	13	13
Total	390	134	4492

Table 16: Activities Individuals Were Doing That Resulted in Lost Time Injuries, 2018, between 31 and 90 days

Activity	Count	Days Missed	
		Average	Sum
EMS	33	52	1743
Station Duties	19	52	993
Skills Training	17	61	1046
Fire Suppression	16	57	920
Wellness/Fitness	16	48	773
Responding to Incident	12	70	841
Returning from Incident	7	58	411
Fire Prevention	4	56	225
Rescue - Non-Fire	3	60	180
Total	127	514	7132

Table 17: Activities Individuals Were Doing That Resulted in Lost Time Injuries, 2018, 91+ days

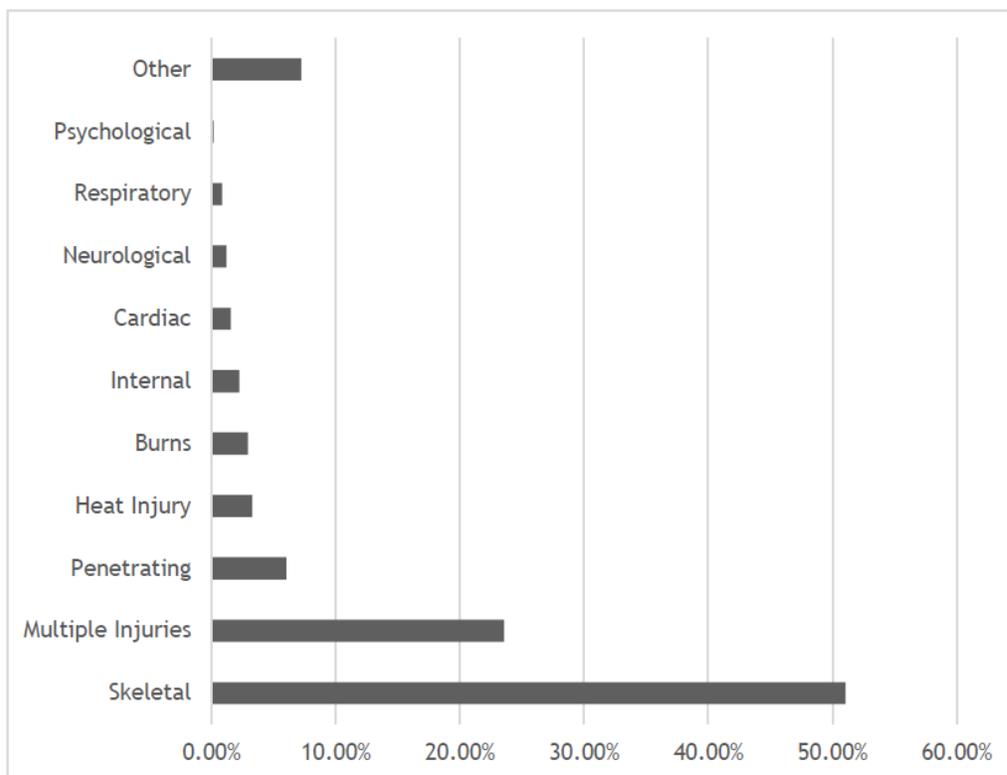
Activity	Count	Days Missed	
		Average	Sum
Fire Suppression	13	147	1916
EMS	12	139	1671
Station Duties	8	143	1149
Skills Training	7	140	980
Wellness/Fitness	6	156	941
Returning from Incident	5	146	734
Rescue - Non-Fire	2	124	249
Responding to Incident	2	109	218
Fire Prevention	1	105	105
Total	56	1209	7963

Types of Injuries with Lost Time

Table 18: Types of Injuries Resulting in Lost Time, 2018

Type of Injury	Count	Average Days Out
Skeletal	297	36
Multiple Injuries	137	41
Penetrating	35	9
Heat Injury	19	8
Burns	17	25
Internal	13	50
Cardiac	9	14
Neurological	7	30
Respiratory	5	8
Psychological	1	34
Other	42	25
Totals	582	25

Figure 6: Types of Injuries Resulting in Lost Time, 2018



Burn Injuries

Table 19: All Burns, 2014 - 2018

All Burns - Types	2014	2015	2016	2017	2018
Thermal (Heat/Fire)	76	85	92	96	213
Scald or Steam	33	10	9	13	40
Chemical	2	0	3	4	15
Electrical	2	0	2	0	4
Totals	113	95	106	113	272

Table 20: Burns by Body Part Sub-Type, 2018

Body Part Sub-Type	Count
Back: Back	1
Back: Buttocks	0
Back: Lower Back	0
Back: Neck	0
Back: Spine	0
Chest: Abdomen	0
Chest: Abdominal Area	0
Chest: Chest	2
Head: Cheek	16
Head: Chin	4
Head: Ear	26
Head: Eye	8
Head: Face	22
Head: Jaw	0
Head: Mouth	0
Head: Nose	1
Hip: Groin	0
Hip: Hip	0
Hip: Pelvis	0
Internal: Genito-urinary	0
Internal: Heart	0
Internal: Internal	0
Internal: Intestinal tract	0
Internal: Lungs	0
Internal: Stomach	0
Internal: Trachea	0
Lower Extremities: Ankle	0
Lower Extremities: Foot	18
Lower Extremities: Knee	0

Lower Extremities: Lower leg	17
Lower Extremities: Toes	0
Lower Extremities: Upper Leg	0
Multiple Parts: Lower Body	0
Multiple Parts: Unknown	0
Multiple Parts: Upper Body	32
Multiple Parts: Whole Body	10
Neck: Neck	14
Neck: Throat	0
Upper Extremities: Elbow	0
Upper Extremities: Hands	52
Upper Extremities: Lower Back	0
Upper Extremities: Shoulder	27
Upper Extremities: Upper Arm	14
Upper Extremities: Wrist	8
Total	272

Table 21: Burns by Body Part, 2014 - 2018

Body Part	2014	2015	2016	2017	2018
Hand and fingers	18	14	27	22	52
Ear	13	22	14	16	26
Arm, lower, not including elbow or wrist	9	3	2	12	n/a
Multiple parts	16	8	4	12	10
Face	13	12	16	9	43
Neck	9	6	4	7	14
Wrist	5	4	9	7	8
Shoulder	5	5	3	6	27
Multiple body parts, upper body	4	5	8	4	32
Leg, lower	1	6	3	3	n/a
Undetermined	0	0	3	2	n/a
Arm, upper, not including elbow or shoulder	2	2	1	2	14
Back, except spine	2	0	0	2	1
Pelvis or groin	0	0	0	2	0
Knee	0	0	1	2	0
Elbow	0	0	0	1	0
Head	3	4	2	1	n/a
Neck and shoulders	1	0	0	1	n/a
Chest	0	0	1	1	2
Foot and toes	2	1	3	1	18
Eye	1	0	0	0	8
Throat	0	0	0	0	0
Hip, lower back, or buttocks	1	0	1	0	0
Lower extremities	2	1	2	0	17
Upper extremities	6	2	2	0	n/a
Total	113	95	106	113	272

For Table 21 above, the 2018 column (shaded in gray) was pieced together from the data in Table 20 in order to view trends and patterns.

Exposures

Due to the change in our information management system, the exposure data collected in 2018 is less specific than the exposure data collected in previous years. This is why we currently have “historical data” in separate charts and figures than that for 2018.

Table 22: Exposure by Sub-Type, 2018

Exposure + Sub-Type	Count
Chemical: Ammonia	1
Chemical: Benzene	5
Chemical: Bleach	1
Chemical: Not listed	244
Chemical: Unidentified	167
Physical: Animal venom	12
Physical: Meningitis	41
Physical: Not listed	191
Physical: Plant toxin	41
Physical: Unidentified	125
Respiratory: Blood	125
Respiratory: Influenza	16
Respiratory: Not listed	234
Respiratory: Saliva	44
Respiratory: Tuberculosis	158
Respiratory: Unidentified	140
Respiratory: Vomit	10
Total	1555

Table 23: Exposure by Route, 2018

Route	Count
Absorption	471
Ingestion	96
Inhalation	910
Injection/Puncture	78
Total	1555

Figure 7: Exposure by Route, 2018, percentages

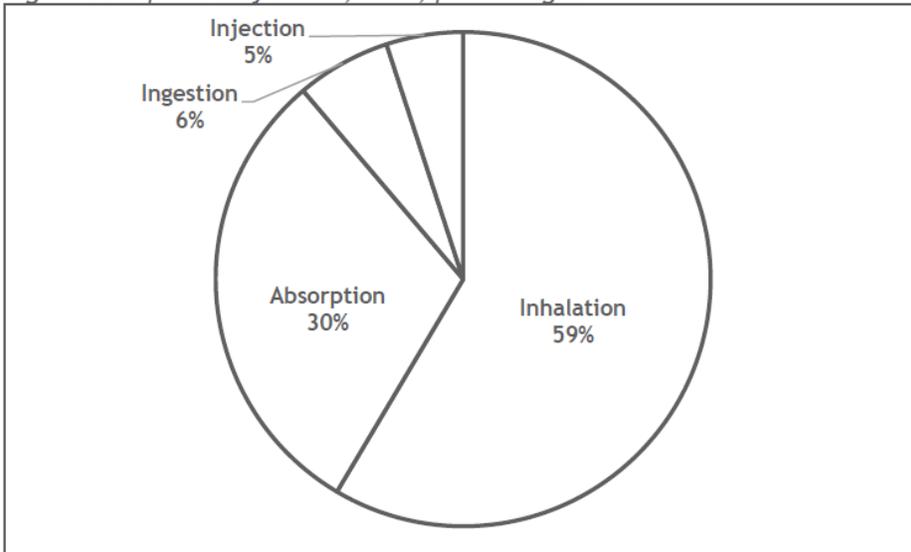


Table 24: Exposure by Substance, 2018

Substance	Count
Gas/vapor	596
Liquid	534
Solid	425
Total	1555

Figure 8: Exposure by Substance, 2018, percentages

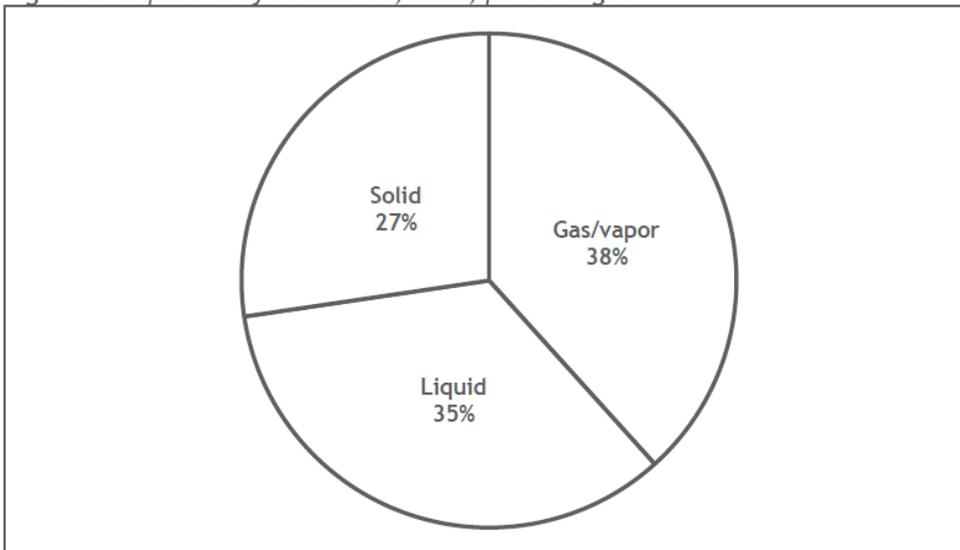


Table 25: Routes of Exposure, 2014 - 2017, historical data (ordered by 2017, descending)

Exposure Routes	2014	2015	2016	2017
Airborne pathogens	369	141	290	354
Undetermined	120	287	273	325
Blood pathogens	183	181	194	174
Body Fluids	109	167	121	173
Chemical (household/industrial)	313	53	310	147
Plant Toxins	24	54	37	36
Chemical (carbon monoxide)	3	3	27	1
Total	1121	886	1252	1210

Figure 9: Routes of Exposure, 2014 - 2017, historical data

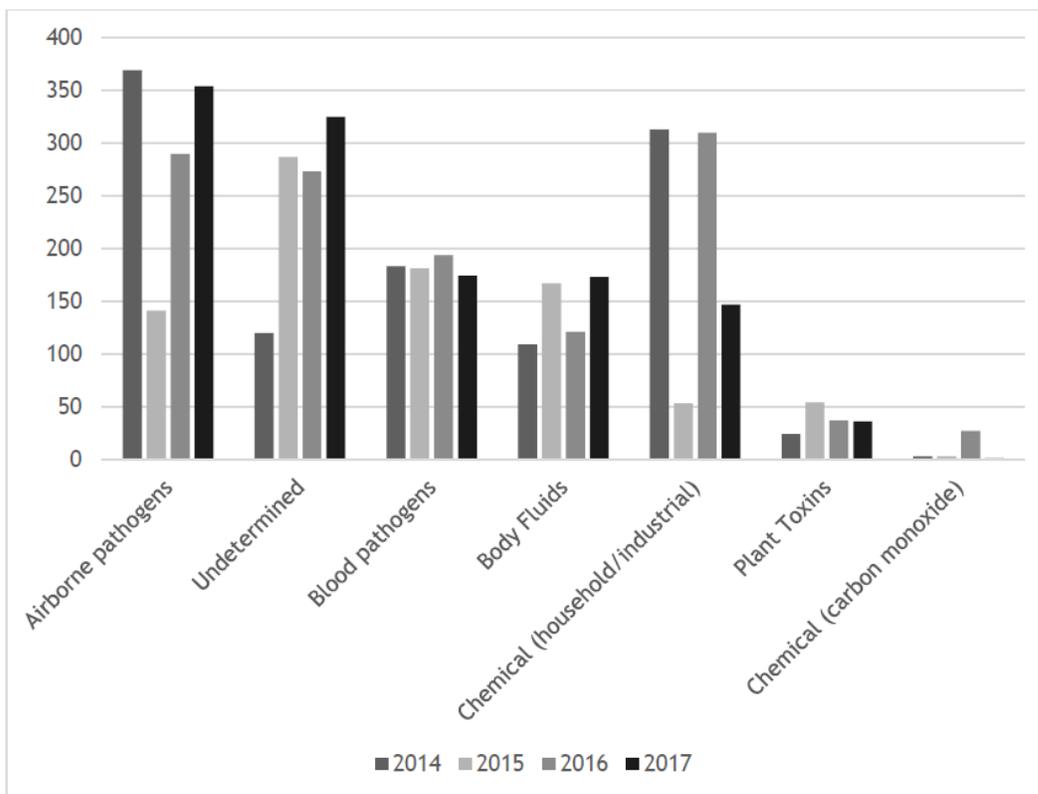


Table 26: Exposure description, 2014 - 2017, historical data (ordered by 2017, descending)

Exposure description	2014	2015	2016	2017
Unknown	103	256	148	290
Blood	177	167	161	153
Chemicals/household/industrial	89	36	310	122
Asbestos	384	51	51	112
Tuberculosis	93	73	128	109
Body fluids	109	92	91	101
Meningitis	65	91	62	104
Animals or wildlife	63	75	90	58
Sickness, other	60	21	24	49
Poison plants	24	61	37	37
Vomit	16	19	14	17
Chlorine	0	4	1	14
Mold	0	4	26	10
Airborne, other	15	7	40	7
Staph	0	3	0	7
Carbon monoxide	6	8	26	5
HIV	0	11	4	4
Scabies	9	4	21	4
Hepatitis C	6	10	14	3
MRSA	4	0	14	3
Bacterial pneumonia	0	1	0	1
Explosive residue	0	0	0	0
Influenza	8	0	0	0
Lice	0	0	0	0
Strep	0	0	1	0
Total	1231	994	1263	1210

Cancer

The commission received nine reports of cancer diagnoses from fire departments in 2018:

Thyroid - 3

(Males, 36, 45, 53)

Skin - 2

(Males, 43, 45)

Testicular - 2

(Males, 37, 47)

Lymphoma - 1

(Male, 65)

Unidentified - 1

(Male, 45)

The commission strongly encourages fire departments to report cancer diagnoses; the commission recognizes that the number of job-related cancers reported during this time-period represents only a small fraction of the cases that Texas fire departments are currently managing. There is a growing awareness of the impact that cancer is having on fire protection personnel nationwide, and the commission urges departments to use this reporting tool to help contribute to the education and awareness of the issue in Texas.

SOP Issues

In 2018 there were 30 injuries attributed to failures of fire protection personnel to follow their departments' standard operating procedures (SOPs). All but a few were instances where the individuals were not wearing their provided PPE/SCBA gear in an environment or situation in which they should have been.

In its compliance inspections, the Texas Commission on Fire Protection verifies that fire departments have written SOPs that cover the appropriate subject matter.

Table 27: Injuries Attributed to SOP Issues, 2018

Activity	Minor	Serious	Critical	Total
Fire Suppression	6	2	11	19
Ems	2		5	7
Responding to Incident			1	1
Skills Training	2			2
Station Duties			1	1
Totals	10	2	18	30

Table 28: Injuries Attributed to PPE & PASS Failures

Activity	Minor	Serious	Critical	Total
Fire Suppression	5		3	8
EMS	1			1
Skills Training	2			2
Rescue - Fire Related	1			1
Rescue - Non-Fire	2			2
Totals	11	0	3	14

Fatalities

The commission's 2018 injury report includes **six fatalities**. Fatalities listed in this report include only those reported to the Texas Commission on Fire Protection (TCFP) by the entities it regulates.

The State Fire Marshal's Office conducted nine Texas fire fighter fatality incident investigations between September 1, 2017 and August 31, 2018. Comprehensive information about the investigations may be found on their website at the following web address: <https://www.tdi.texas.gov/fire/fmloddannuals.html>

State of Texas vs. NFPA

Comparison between the State of Texas (2018) and National Fire Protection Association (NFPA), U.S. Firefighter Injuries - 2017

For the purposes of comparison, the commission has mapped its categories to the NFPA categories as follows:

- “**Fireground**” includes the commission’s Fire Suppression and Rescue - Fire Related.
- “**Non-Fire**” includes Rescue Non-Fire, EMS and Hazmat.
- “**Other On-Duty**” includes Fire Prevention, Station Duties and Wellness/Fitness.

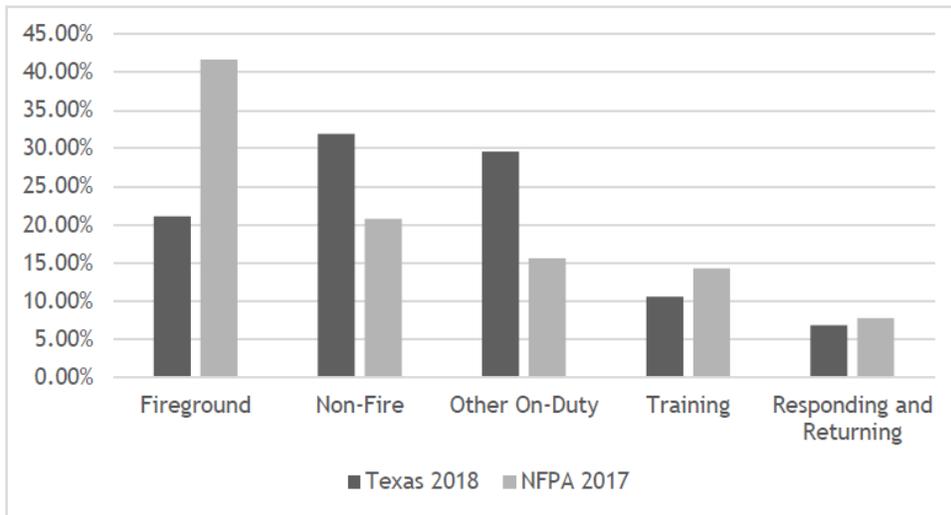
The NFPA’s “Responding and Returning” and “Training” categories appear to correspond closely to the commission’s categories. (The NFPA numbers include Texas statistics, although the reporting populations may not be the same.)

Table 29: Comparison of Texas 2018 and NFPA 2017

Category	Texas 2018		NFPA 2017*	
	Count	Percent	Count	Percent
Fireground	831	21.67%	24495	41.63%
Non-Fire	1213	31.63%	12240	20.80%
Other On-Duty	1132	29.52%	9165	15.58%
Training	401	10.46%	8380	14.24%
Responding and Returning	258	6.73%	4555	7.74%
Total	3835	100.00%	58835	100.00%

*NFPA data is from [U.S. Firefighter Injuries in 2017](#), copyright ©2018 National Fire Protection Association, Quincy, MA.

Figure 10: Injuries by Activity Percentages - Comparing Texas 2018 and NFPA 2017



Recommendations

The commission would like to thank Texas fire departments for their ongoing participation in reporting fire protection personnel injuries. This report would not be possible without their efforts.

Based on their review of the data contained within this report, the commission offers the following recommendations to the Texas fire service:

◇ **Insert the commission's recommendations here:**

◇ Recommendation

◇ Recommendation

◇ Recommendation

Commission-adopted standards

The commission has adopted several NFPA and other nationally recognized standards to help keep Texas fire protection personnel safe. This list summarizes the relationships between some of the Texas laws and national standards and is not intended to be all-inclusive:

Texas Government Code

[§419.040, Protective Clothing](#)

[§419.041, Self-Contained Breathing Apparatus](#)

[§419.042, Personal Alert Safety Systems](#)

[§419.043, Applicable National Fire Protection Association Standard](#)

[§419.044, Incident Management System](#)

[§419.045, Personnel Accountability System](#)

[§419.046, Fire Protection Personnel Operating at Emergency Incidents](#)

[§419.047, Commission Enforcement](#)

Texas Administrative Code

[CHAPTER 425 FIRE SERVICE INSTRUCTORS](#)

[§443.9 National Fire Protection Association Standard](#)

[CHAPTER 435 FIRE FIGHTER SAFETY](#)

[§435.21 Fire Service Joint Labor Management Wellness-Fitness Initiative](#)

[§435.23 Fire Fighter Injuries](#)

[§435.25 Courage to be Safe So Everyone Goes Home Program](#)

[§435.27 Live Fire Training Structure Evolutions](#)

[CHAPTER 451 FIRE OFFICER](#)

[CHAPTER 457 INCIDENT SAFETY OFFICER CERTIFICATION](#)

See also the commission's web page: [NFPA Standards adopted by the commission.](#)
(double-check this link before publication)

- 9. Update on request by committee member Daniel DeYear on producing an annual report regarding compliance inspection activities, results, and common violations.**

10. Discussion and possible action on setting future meeting dates, locations and agenda items.

11. Adjourn meeting