

BRIAN L. CUMMINGS

October 11, 2012

BOARD OF FIRE COMMISSIONERS FILE NO. 12-182

TO:

Board of Fire Commissioners

FROM:

Brian L. Cummings, Fire Chief

SUBJECT:

NFPA 1710 - ADDENDUM TO BOARD REPORT 12-086

FOR INFORMATION ONLY: _____ Approved ____ Approved ____ Approved ____ Received

Approved w/Corrections
Received & Filed

Withdrawn

__ Other

For Information Only

During the presentation of the National Fire Protection Association (NFPA) 1710 guideline on June 5, 2012 to the Board of Fire Commissioners, the Commissioners became concerned at the length of the Standard and the irrelevance of some of the guidelines to the discussion points that had been taking place with regard to resource performance. The Commission requested a summary of the information found within this particular guideline specifically within the context of company standards and performance. This synopsis will look at three Commission requested areas; resource staffing requirements, response time performance and strategies embedded within this guideline that may prevent further reductions to Department resources. All guidelines are taken from "NFPA 1710 Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Career Fire Departments, 2010 Edition." This complete standard was provided to the Fire Commission as an attachment to Board Report 12-086.

The Commission should be reminded that the NFPA represents discretionary guidelines that are used by fire departments around the country to establish measures of effectiveness. In the absence of non-discretionary guidelines, the NFPA standards have been applied. Historically, the guidelines found within the NFPA have been a starting point for the collaborative discussion on community fire and EMS protection.

Resource Staffing Requirements

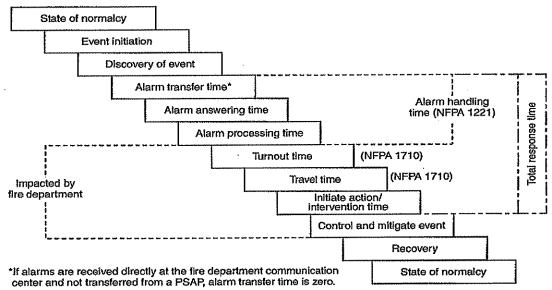
5.2.3 - Operating Units

Fire Company staffing requirements shall be based on minimum levels necessary for safe, effective and efficient emergency operations.

- 5.2.3.1 Fire Companies whose primary functions are to pump and deliver water and perform basic fire fighting at fires, including search and rescue, shall be known as Engine Companies.
- 5.2.3.1.1 These companies shall be staffed with a minimum of four on-duty personnel.
- 5.2.3.1.2 In jurisdictions with tactical hazards, high hazard occupancies, high incident frequencies, geographical restrictions, or other pertinent factors as identified by the Authority Having Jurisdiction (AHJ), these companies shall be staffed with a minimum of **five or six** on-duty members.
- 5.2.3.2 Fire companies whose primary functions are to perform the variety of services associated with Truck work, such as forcible entry, ventilation, search and rescue, aerial operations for water delivery and rescue, utility control, illumination, overhaul and salvage work, shall be known as ladder or truck companies.
- 5.2.3.2.1 These companies shall be staffed with a minimum of **four** on-duty personnel.
- 5.2.3.2.2 In jurisdictions with tactical hazards, high hazard occupancies, high incident frequencies, geographical restrictions, or other pertinent factors as identified by the AHJ, these companies shall be staffed with a minimum of **five or six** on-duty personnel.
- 5.2.3.3 Other Types of Companies
- 5.2.3.3.1 Other types of companies equipped with specialized apparatus and equipment shall be provided to assist engine and ladder companies where necessary to support the fire departments' SOP's (Standard Operating Procedures)
- 5.2.3.3.2 These companies shall be staffed with the minimum number of on-duty personnel required to deal with the tactical hazards, high-hazard occupancies, high incident frequencies, geographical restrictions, or other pertinent factors as identified by the AHJ.

Response Time Performance

The following diagram illustrates the cascade of events that occur during an emergency event and the specific NFPA guidelines that apply. Of particular note is that the NFPA 1710 guideline applies only from the time when the fire station receives the alarm to when the initial responding company arrives on scene of the incident and initiates mitigation efforts. Response time is the combination of turnout time and travel time. Total response time would include the NFPA 1221 Standard.



"NFPA 1710 Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Career Fire Departments, 2010 Edition".

<u>Turnout Time</u> – The time from when the station or company is notified of the alarm to when the apparatus is moving towards the emergency incident.

TURNOUT TIME NFPA 1710 STANDARD	Time in Seconds
Type of Emergency Response	
Structure Fire (Fire Suppression)	80 Seconds for 90% of the incidents
Specialize Rescue	80 Seconds for 90% of the incidents
Emergency Medical Service (EMS)	60 Seconds for 90% of the incidents

<u>Travel Time</u> – The time from when the apparatus begins moving towards the incident until it arrives on scene and begins mitigation efforts.

TRAVEL TIME NFPA 1710 STANDARD	Time in Seconds (minutes)
First Engine Co. at a Fire Suppression (FS) incident	240 Seconds (4 minutes) for 90% of the incidents
First Responder with an AED at an EMS incident	240 Seconds (4 minutes) for 90% of the incidents
First ALS responder on scene of an EMS incident	480 Seconds (8 minutes) for 90% of the incidents

Response Time = Turnout Time + Travel Time

RESPONSE TIME NFPA 1710 STANDARD	Time in Seconds (minutes) for 90% of the incidents
First Engine Co. at a Fire Suppression (FS) incident	320 Seconds (5 minutes 20 seconds)
First Responder with an AED at an EMS incident	300 Seconds (5 minutes)
First ALS responder on scene of an EMS incident	540 Seconds (9 minutes)

Strategies that are used by fire departments to apply the NFPA 1710 standard to justify resource deployment need to take into account the flexible nature from which these standards are developed. NFPA standards are built from a consensus body that seeks to provide direction to fire departments on what success looks like. This consensus understands that many fire departments because of their unique circumstances may not be able to achieve these benchmarks; however, the intent would be to provide a dialogue on what a community's fire based EMS protection should look like. It would ultimately rely on the elected official's willingness to provide the funding needed to meet the standards outlined by the NFPA.

The Department has adopted this standard as an objective to strive for and is making every effort to apply these guidelines in the decision making process. The Department continues to be challenged by budgetary constraints but is looking at technologies that will integrate with the Computer Aided Dispatch (CAD) system that will ultimately improve performance.

Board Report prepared by Administration.