

Developing a Fire Department Professional Development Guide

Robert L. Havens

Port Arthur Fire Department, Port Arthur, Texas

Appendices Not Included. Please visit the Learning Resource Center on the Web at <http://www.lrc.dhs.gov/> to learn how to obtain this report in its entirety through Interlibrary Loan.

Certification Statement

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Signed: 

Abstract

The Port Arthur Fire Department did not have an established professional development program.

This project developed a Fire Department Professional Development Program Guide for the Port Arthur Fire Department.

There were three (3) questions addressed:

1. What are the requisite knowledge, skills, abilities and job performance requirements for each fire department promotional position?
2. What training and/or credentialing programs are available to prepare members for promotion?
3. What are the responsibilities of both the individual and the organization in the professional development of the members?

An action research method was used to develop a Professional Development Program Guide for the Port Arthur Fire Department. The research was conducted by reviewing National Fire Protection Association publications, Texas Commission on Fire Protection standards and curricula, state and local statutes, and local job descriptions.

A literature review was conducted to explore various contemporary professional development models in use today. Models and recommendations developed by various national, state, and educational organizations were explored. Expected job performance requirements and the associated knowledge, skills and abilities needed for each job description were explored and addressed. Recommendations for the initial and continuing professional development for each position in the fire department were developed and a guide was then developed to facilitate the professional development of fire department members throughout their career progression.

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Developing a Fire Department Professional Development Guide

Introduction

The problem is the Port Arthur Fire Department does not have an established professional development program.

The purpose of this research project is to develop a Fire Department Professional Development Program Guide for the Port Arthur Fire Department.

There are three (3) questions which will be addressed:

1. What are the requisite knowledge, skills, abilities and job performance requirements for each fire department promotional position?
2. What training and/or credentialing programs are available to prepare members for promotion?
3. What are the responsibilities of both the individual and the organization in the professional development of the members?

An action research method will be utilized to develop a Professional Development Program Guide for the Port Arthur Fire Department. The research will be conducted by reviewing National Fire Protection Association publications, Texas Commission on Fire Protection standards and curricula, State and local statutes, and local job descriptions.

A literature review will be conducted to explore various contemporary professional development models in use today. Models and recommendations developed by various national, state, and educational organizations will also be explored. Expected job performance requirements and the associated knowledge, skills and abilities needed for each job description will be explored and addressed. Recommendations for the initial and continuing professional development for each position in the fire department will be developed. A guide will then be

developed to facilitate the professional development of fire department members throughout their career progression.

Background & Significance

The Port Arthur Fire Department is a career fire department, 108 personnel strong. Of the 108 employees of the fire department, 106 are classified fire service personnel. The other two positions are secretarial positions. This research project will only address the professional development of the 106 classified fire service positions.

The rank structure of the Port Arthur Fire Department follows the following path of ascending ranks, (the number of authorized positions is annotated next to each rank): Fire Fighter (37), Fire Engineer (30), Fire Captain (31), Battalion Chief (4), Deputy Fire Chief (1), and Fire Chief (1). The department's Fire Marshal is equivalent to a Battalion Chief in rank. An organizational chart is illustrated below in Figure 1.

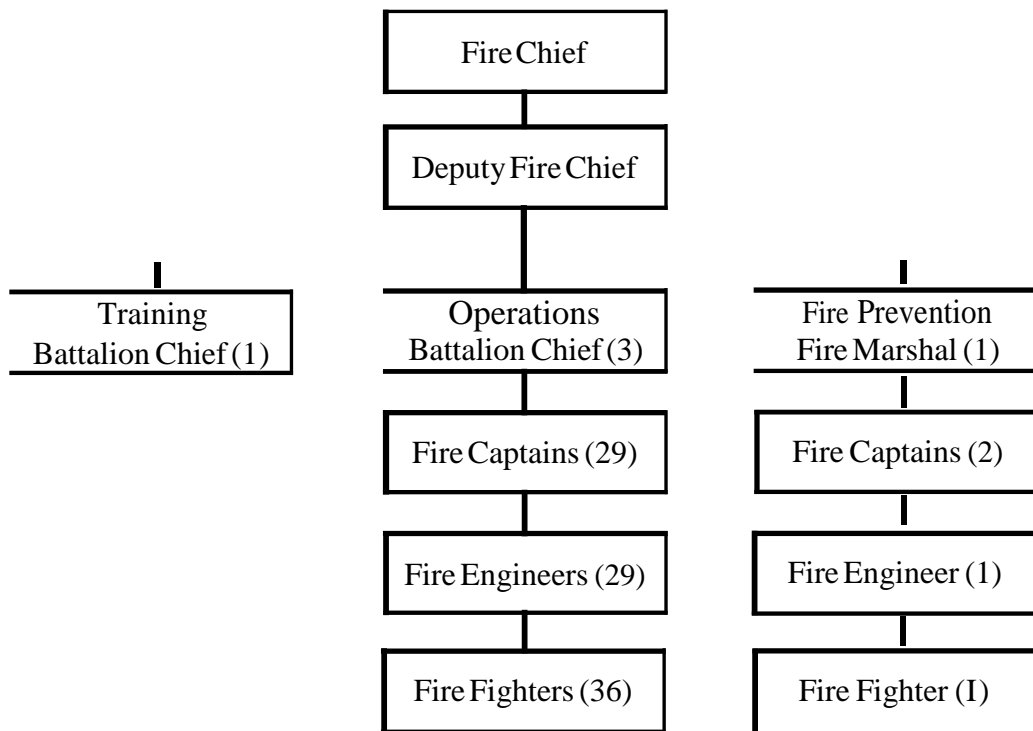


Figure 1. Port Arthur Fire Department Organizational Chart

The Port Arthur Fire Department is a Texas Civil Service department and must adhere to Texas Local Government Code 143 as it pertains to Municipal Civil Service for Fire Fighters and Police Officers. This code addresses the requirements and limits for classifying, appointing, compensating and disciplining municipal civil service fire service personnel (Texas Local Government Code, 1987/2013).

The Texas Commission on Fire Protection (TCFP) is the licensing and certifying entity for career fire service personnel in the State of Texas (Texas Government Code, 1991/2013). The Texas Commission on Fire Protection develops and enforces recognized professional standards for the Texas Fire Service. The TCFP also provides training curricula and administer certification examinations for several different fire service certifications. All Texas Commission on Fire Protection certification curricula are based on National Fire Protection Association professional qualification standards (Texas Administrative Code, 1998/2016 §443.9).

Certification examinations are administered, and certifications granted, in accordance with International Fire Service Accreditation Congress (IFSAAC) credentialing requirements. Some certifications are mandatory for all personnel working for a Commission regulated entity, for example, all fire fighters, regardless of rank, must be credentialed as a Basic Structural Fire

Fighter. Other certifications are only mandatory based on the assigned job duties, for example, all assigned Fire Inspection Personnel must be credentialed as Basic Fire Inspectors and Fire Department Training Officers must be credentialed at least to the Fire Service Instructor II level. While several other certifications are provided as voluntary compliance certifications only, for example, Driver/Operator Pumper, Fire Officer I -IV, Incident Safety Officer, Hazardous Materials Technician are not statutorily required to be held by any fire service personnel (Texas Administrative Code, 1998/2016).

At this time the Port Arthur Fire Department only requires its personnel to attain the certifications they are required to hold per state statutory requirements based on their job assignment. A few specialized training and certification requirements are required for participation on Special Operations Teams. For example, TCFP Hazardous Materials Technician certification is required for assignment to the Hazardous Materials Response Team. However, at this time there is no requirement for Fire Engineers or Acting Fire Engineers to hold Driver/Operator -Pumper credentials or for any Captain or Chief Officer to attain any level of Fire Officer certification.

Preparation of personnel for promotion currently follows the minimum State statutory requirements. A reference list is provided of the reference sources from which promotional exam material will be drawn from. To view the current Master Reference List for Port Arthur Promotional Examinations, refer to Appendix B.

Personnel who have met the minimum in-grade service requirement sign up to take the promotional exam, they then study and take the promotional examination. If they score high enough on the exam, they are placed on a promotional eligibility list (Texas Local Government Code, 1987/2013). Promotions are then selected from a list of eligible candidates who have successfully passed a promotional exam.

Table 1 below illustrates the minimum statutory service time requirements for an employee of the Port Arthur Fire Department to promote from one rank to another:

| | Current Rank | Minimum Years of Service in Grade to Promote | New Rank | Minimum Total Years of Service at the time of Promotion |
|---|---------------------|---|-------------------|--|
| 1 | Fire Fighter | 2 | Fire Engineer | 2 |
| 2 | Fire Engineer | 2 | Fire Captain | 4 |
| 3 | Fire Captain | 2 | Battalion Chief | 6 |
| 4 | Battalion Chief | 2 | Deputy Fire Chief | 8* |
| 5 | Deputy Fire Chief | 2* | Fire Chief | 5** |
| 6 | Fire Chief | n/a | n/a | n/a |

Table 1. Port Arthur Fire Department Service Requirements for Promotional Eligibility

There are three facts that should be noted about the information illustrated in Table 1.

First, the two year service requirement in the previous rank is based on the amount of time an employee must serve in the previous rank prior to being eligible to enter the promotional process (Texas Local Government Code, 1987/2013). So an employee will actually serve more than the two year requirement in their previous rank prior to being promoted, due to the time it may take to be promoted.

Secondly, state statutes and local rules would normally require an employee to serve two years in the previous rank of Battalion Chief prior to being eligible for promotion to Deputy Fire Chief. However, at the time this project was researched, the Port Arthur Fire Department was party to a collective bargaining agreement that allows the Fire Chief to appoint a Deputy Fire Chief from any rank with no minimum service requirement (*Articles*, 2014).

Third, statutorily the minimum service requirement for a person to be appointed to the position of Fire Chief is five years (Texas Local Government Code, 1987/2013). The appointee is not required to have met any grade/rank service requirements other than five years of service as a certified fire fighter and is not required to have completed any additional certification or

training requirements other than complete National Incident Command System - Incident Command training to the ICS-400 level (Texas Administrative Code, 1998/2016).

There are no state statutes or local rules that require any prerequisite certifications, training, or education be attained for a promotion at any rank.

The only two positions that have prerequisite certification, training, or education requirements are entry level Fire Fighter and the position of Fire Chief. Entry level Fire Fighters must complete certification training and be certified as a Basic Structural Fire Fighter by the Texas Commission on Fire Protection and as an Emergency Medical Technician-Basic (EMT-B) by the Texas Department of State Health Services (DSHS).

Candidates for the position of Fire Chief are required to meet established certification, training, or education requirements set by the City Manager's Office and the City's Personnel Department. It has been more than twelve years since a new Fire Chief was hired and there is no current established list of prerequisites available to evaluate. However, by reviewing industry standards such as the *Officer Development Handbook* published by the International Association of Fire Chiefs and the U.S Fire Administration's *National Professional Development Model* developed by Fire and Emergency Services Higher Education (FESHE) initiative, it can be surmised what prerequisite certification, training, or education requirements may be required of a new Fire Chief (IAFC, 2010). These requirements would most probably require a potential candidate to achieve at a minimum a Baccalaureate degree, Fire Officer IV certification, and some professional designation (USFA, n.d.).

Not only are there no prerequisite certification, training, or education requirements for the ranks of Fire Engineer, Fire Captain, Battalion Chief, and Deputy Fire Chief, there are no post promotion certification, training, or education requirements either. This practice has created

a situation where people get promoted but fail to meet minimum national consensus standards for their job assignments. Since they have received little or no formal education and training they lack the knowledge, skills, and abilities to competently meet all the expected job performance requirements of their new job duties. The primary goal of this project is to provide the employees of the Port Arthur Fire Department a professional development guide that will provide them with direction on what training and education they need to receive and what certifications and credentials they need to attain to better prepare them for future success in their career.

This project will focus on the professional development of personnel promoting to or serving in the following positions:

- Fire Fighter
- Fire Engineer
- Fire Captain
- Battalion Chief
- Deputy Fire Chief
- Fire Chief

This project will not address Special Operations or Fire Prevention/Investigation specific professional development such as:

- Fire Inspector
- Fire/Arson Investigator
- Texas Peace Officer credentialing
- Marine Fire Fighter
- Technical Rescue
- Hazardous Materials Technician

- Public Safety Diver/Underwater Criminal Investigator

Credentialing in these areas has not been identified as a problem and the Port Arthur Fire Department already has practices in place to train and maintain credentialing in these areas for the personnel assigned to these duties.

The Port Arthur Fire Department and the community it serves will benefit greatly from this project with better qualified and more capable fire fighters that will be able to provide a greater level of service more safely and efficiently.

This research project directly relates to the underlying learning objective of the Executive Leadership course. The Executive Leadership course challenged each student to extend the knowledge they have gained from their Executive Fire Officer Program experience by seeking new opportunities to exercise leadership in their professional practice. With this project I have identified a problem with my department's ongoing professional development of its personnel, or lack thereof. I then used the Applied Research Project format to define the problem, research its nature and develop alternative solutions, and finally create a guide that will be implemented by the fire department to increase the overall professional development of the current and future employees.

Additionally, this project supports three of the United States Fire Administration's strategic goals by:

- 1) Promoting response, local planning and preparedness for all hazards. This is achieved by providing a professional development plan that will better train and educate members of the Port Arthur Fire Department and enhance their ability to respond, plan, and prepare for all hazard threats to our community.

- 2) Enhancing the fire and emergency services' capabilities for response to and recovery from all hazards. This too is achieved by providing a professional development plan that will better train and educate members of the Port Arthur Fire Department. This will ensure that department members are qualified and competent to safely, effectively, and efficiently respond to all hazard threats to our community and assist with related recovery operations.
- 3) Advancing the professional development of fire service personnel and of other people engaged in fire prevention and control activities. This project will develop a professional development plan that may be used by all members of the Port Arthur Fire Department, to include operations, prevention, and administration personnel and to provide them with a guidance document on how they can prepare themselves for promotion and better perform their job duties.

Literature Review

A literature review was conducted to explore various contemporary professional development models in use today and to explore the current Fire Service trends in education and training. Three of the primary publishers serving the Fire Service Community today are the National Fire Protection Association (NFPA), International Fire Service Training Association (IFSTA) and Jones and Bartlett Learning. They have all published several texts that are based on NFPA Professional Qualification Standards.

The National Fire Protection Association (NFPA) has developed professional qualification standards that identify the job performance requirements and the knowledge, skills, and abilities each employee needs to master to successfully perform their job duties. A review of the NFPA Standards identified the following standards that provide fundamental guidance to Fire

Service professionals who may wish to identify training and educational goals they need to attain to realize their professional goals.

NFPA 1001: Standard for Fire Fighter Professional Qualifications identifies the initial job performance requirements and the knowledge, skills, and abilities that every fire fighter must master (*NFPA 1001*, 2012). This includes the requirement to meet specific Hazardous Materials response qualifications as outlined in *NFPA 472: Standard for Competence of Responders to Hazardous Materials/Weapons of Mass Destruction*. NFPA 1001 requires fire fighters to meet the requirements of NFPA 1001 and the Operations Level competencies and Operations Mission Specific competencies of *NFPA 472* (*NFPA 1001*, 2012).

The Texas Commission on Fire Protection requires all TCFP regulated fire fighters to meet all the requirements of NFPA 1001 and NFPA 472 Chapters 4, 5, 6.2, and 6.6 prior to certification (Texas Administrative Code, 1998/2016, §423.3). The Port Arthur Fire Department requires that all fire fighters be certified by the TCFP as a Basic Structure Fire Fighter and be certified at least to the level of EMT-B by the Texas DSHS prior to being hired (West, 1998).

All entry level employees enter service as a fully credentialed fire fighters and possess both the medical and hazardous materials response credentials required for employment (*Articles*, 2014).

At the first promotional level, Fire Engineer, the newly promoted employee is expected to competently, effectively, and efficiently operate fire apparatus (PAFD, 2016) including both pump and aerial apparatus. *NFPA 1002: Standard for Fire Apparatus Driver/Operator Professional Qualifications* identifies the initial job performance requirements and the knowledge, skills, and abilities that a Fire Apparatus Driver/Operator must master (*NFPA 1002*, 2013). NFPA 1002 specifically addresses the Driver/Operator requirements for those who drive

and operate pump apparatus in Chapter 5 of the standard. Additionally, NFPA 1002 specifically addresses the Driver/Operator requirements for those who drive and operate aerial apparatus in Chapter 5 of the standard.

The Texas Commission on Fire Protection requires all TCFP regulated personnel who are to be credentialed as a Driver/Operator-Pumper to meet all the requirements of NFPA 1002 Chapter 5 (Texas Administrative Code, 1998/2016, §433.3). Additionally, those who seek credentialing as a Driver/Operator-Aerial must meet all the requirements of NFPA 1002 Chapter 6 (Texas Administrative Code, 1998/2016, §433.203).

There seems to be no question that any Driver/Operator development program should be built around the requirements of NFPA 1002. Some authors go as far as to insist that all drivers must meet the requirements of 1002 prior to operating any apparatus (Conkle et al., 2016). Others simply advocate developing and implementing comprehensive training programs (Brakage, Miller, Fortney, Peters, & Snyder, 2015).

Reviewing Fire Officer material for the training and professional development of employees to the rank of Fire Captain and on to Chief Officer positions proved to be less straightforward than researching Driver/Operator requirements.

At the first supervisory level beyond Fire Engineer is the rank of Fire Captain, The Port Arthur Fire Department expects Fire Captains to be able "*to supervise, plan and coordinate*" (PAFD, 2016, Section 300-6). Additionally, they are responsible for identifying training needs and ensuring that their subordinates are competently trained. They also evaluate and report on the job performance of their subordinates (PAFD, 2016, Section 300-6).

NFPA 1021: Standard for Fire Officer Professional Qualifications identifies the initial job performance requirements and the knowledge, skills, and abilities that all Fire Officers must

master. NFPA 1021 addresses the Fire Officer requirements at four different levels. Fire Officer I is the first level addressed in NFPA 1021. Fire Officer I requirements are those of a first line supervisor (*NFPA 1021*, 2013). Fire Officer II requirements expand on the requirements of Fire Officer I and begin to include entry level management duties such as evaluating employees and managing programs (*NFPA 1021*, 2013). The job performance requirements and the knowledge, skills, and abilities outlined in both Chapter 4 and Chapter 5 of NFPA 1021 best reflect the Port Arthur Fire Departments job performance expectations for Fire Captains.

The Texas Commission on Fire Protection requires all TCFP regulated personnel who are to be credentialed as a Fire Officer I to meet all the requirements of NFPA 1021 Chapter 4 (Texas Administrative Code, 1998/2016, §451.3). Additionally, those who seek credentialing as a Fire Officer II must meet all the requirements of NFPA 1021 Chapter 5 (Texas Administrative Code, 1998/2016, §451.203).

A professional development program for Fire Captains should be built around the requirements of NFPA 1021 Chapters 4 and 5. This material provides the best guidance for personnel to meet the requirements of their job duties. Safety, efficiency, effectiveness are words that describe the fundamental responsibilities of a Fire Officer regardless of whether we are discussing emergency or non-emergency duty functions (Stowell, Adams, & Brakhage, 2007, p. 6).

Fire Officer training programs also need to spend some time addressing the most challenging topics they will need to manage as officers. Fire Officers deal with personnel every day. Personnel issues can be very challenging if the Fire Officer is not prepared to address them. In fact, personnel issues may be the most difficult aspect of a Fire Officer's job duties (Ward, 2015).

There is an additional training and credentialing requirement for Fire Captains. Per NFPA 1021 Chapter 4, prior to meeting the credentialing requirements of Fire Officer I, the prospective Fire Officer must first attain credentialing as a Fire Service Instructor I. The TCFP also requires that prospective Fire Officer I candidates meet Fire Service Instructor I requirements prior to certification (Texas Administrative Code, 1998/2016, §425.3).

NFPA 1041: Fire Service Instructor Professional Qualifications is very similar to NFPA 1021. NFPA 1041 addresses Fire Service Instructor requirements in three different levels each level, Level I, II, and III is addressed in chapters 4, 5, and 6 of the standard, respectively.

Those credentialed to the Fire Service Instructor I level are able to deliver training from pre-prepared lesson plan, perform skills instruction and skill examinations, and administer tests. Those credentialed to the Fire Service Instructor II level are able to develop lesson plans, instructions for skills training and skill examinations, and create testing instruments. Those credentialed to the Fire Service Instructor III level are able to develop, manage, and administer training programs and evaluate program effectiveness (*NFPA 1041*, 2011).

Fire Service Instructor II personnel can also function as a lead instructor, manage hazardous training evolutions, and provide verification of training to the TCFP (Texas Administrative Code, 1998/2016, §427.301). Fire Service Instructor III certification is required for anyone who manages and coordinates a TCFP regulated certification training program (Texas Administrative Code, 1998/2016, §427.301).

The Texas Commission on Fire Protection requires all TCFP regulated personnel who are to be credentialed as a Fire Service Instructor I to meet all the requirements of NFPA 1041 Chapter 4 (Texas Administrative Code, 1998/2016, §425.3). Those who seek credentialing as a Fire Officer II must meet all the requirements of NFPA 1041 Chapter 5 (Texas Administrative

Code, 1998/2016, §425.5). Additionally, those who seek credentialing as a Fire Service Instructor III must meet all the requirements of NFPA 1041 Chapter 6 (Texas Administrative Code, 1998/2016, §425.7).

A Fire Officer's duties related to training and functioning as a Fire Service instructor is very important to maintaining the efficiency and effectiveness of the Fire Department (Clausing & Snyder, 2012). While the roles and responsibilities of the Fire Service Instructor may depend on the individual's job duties or the level of their certification, they are always focused on getting the best performance out of their trainees while providing realistic, relevant training and education in a safe and effective manner (Reeder & Joos, 2014).

Yet another credentialing need for a Fire Captain's professional development is training and certification as an Incident Safety Officer.

One of the essential job requirements of any Fire Officer is to safeguard the welfare of his personnel (Stowell et al., 2007). *NFPA 1521: Standard for Fire Department Safety Officer Professional Qualifications* addresses this requirement.

The Texas Commission on Fire Protection requires all TCFP regulated personnel who are to be credentialed as a Fire Department Incident Safety Officer to meet all the requirements of NFPA 1521, Chapter 5 (Texas Administrative Code, 1998/2016, §457.3). However, prior to application for certification and in keeping with the requirements of NFPA 1521, the applicant must first attain credentialing as a Fire Officer I (Texas Administrative Code, 1998/2016, §457.3).

Any Fire Officer may function as an Incident Safety Officer provided they have the training and expertise to perform this duty (Dodson, 2016).

Up to this point the only NFPA 1021 levels of certification discussed have been Fire Officer I and Fire Officer II, both of which are directly attributable to the job duties of a Port Arthur Fire Department Fire Captain. We will now review the next two levels of certification.

The next step up the Port Arthur Fire Department Chain of Command from Fire Captain is Battalion Chief. Battalion Chiefs are required to manage and coordinate activities of an entire Shift or Division within the Fire Department such as the Training Division or the Fire Prevention Division (*PAFD*, 2016, Section 300-3). NFPA 1021, Chapter 6 identifies the initial job performance requirements and the knowledge, skills, and abilities for personnel functioning at the Fire Officer III level. A Fire Officer III is an individual who is a mid-level manager and exercises some administrative functions (*NFPA 1021*, 2013). The Fire Officer III level of credentialing best reflects the job duties of a Port Arthur Fire Department Battalion Chief.

The Texas Commission on Fire Protection requires all TCFP regulated personnel who are to be credentialed as a Fire Officer III to meet all the requirements of NFPA 1021, Chapter 6 {Texas Administrative Code, 1998/2016, §451.303}. However, prior to application for certification and in keeping with the requirements of NFPA 1021, the applicant must first attain credentialing as a Fire Service Instructor II (Texas Administrative Code, 1998/2016, §451.303).

A key duty that Battalion Chiefs must perform is that of an Incident Commander at emergency incidents (*PAFD*, 2016, Section 300-3). This includes Hazardous Materials incidents. Therefore, they are required to be credentialed as a Hazardous Materials Incident Commander (Hazardous Waste Operations and Emergency Response, 1989). The duties of a Hazardous Incident Commander (HMIC) are varied and complex and require the HMIC to be able to manage dynamic and dangerous activities with skill and expertise (Noll, Hildebrand, Rudner, & Schnepf, 2014).

When reviewing material specific to Hazardous Materials Incident Commander training, all sources referred back to the response qualifications as outlined in Chapter 8 of *NFPA 472: Standard for Competence of Responders to Hazardous Materials/Weapons of Mass Destruction*.

The TCFP provides a training pathway to credentialing personnel as a Hazardous Materials Incident Commander by way of their Hazardous Materials Incident Commander certification curriculum (*TCFP Curricula*, n.d.). This training allows the individual to meet the credentialing requirements as outlined in NFPA 472, Chapter 8 (Texas Administrative Code, 1998/2016).

It is important to note that per Port Arthur Fire Department Job Descriptions, a Fire Captain may be required to temporarily step up and act in the position of Battalion Chief (*PAFD*, 2016). For this reason, it may be preferable for Fire Captains to be trained to the Hazardous Materials Incident Commander, level especially those Captains that are on the Port Arthur Fire Department Hazardous Materials Response Team.

Beyond Battalion Chief in the Port Arthur Fire Department's Chain of Command is the Deputy Fire Chief. The Deputy Fire Chief is responsible for supervising, managing, and the administration of all Port Arthur Fire Department operations and activities. He directly supervises all Battalion/Division Chiefs and provides direct support and assistance to the Fire Chief (*PAFD*, 2016, Section 300-2). The Fire Officer IV level of credentialing best reflects the job duties of a Port Arthur Fire Department Deputy Fire Chief. NFPA 1021, Chapter 7 identifies the initial job performance requirements and the knowledge, skills, and abilities for personnel functioning at the Fire Officer IV level. A Fire Officer IV is an individual who is an executive level fire administrator (*NFPA 1021*, 2013).

The Texas Commission on Fire Protection requires all TCFP regulated personnel who are to be credentialed as a Fire Officer IV to meet all the requirements of NFPA 1021, Chapter 7 (Texas Administrative Code, 1998/2016, §451.403).

At the top to the organizational chart is the Fire Chief. The Fire Chief is ultimately responsible for all aspects of Fire Department operations, function, and administrative activity (*PAFD*, 2016, Section 300-1). The requisite job performance requirements and the knowledge, skills, and abilities for Fire Chief match those of Deputy Fire Chief. Therefore, Fire Officer IV credentialing would best represent the Executive Fire Officer duties associated with the rank/position of Fire Chief.

The TCFP has a few additional credentialing requirements that a Fire Chief must meet to receive the required TCFP Head of Department designation (Texas Administrative Code, 1998/2016, §449A). Any newly appointed TCFP regulated Fire Chief in the State of Texas must meet the statutory requirements of a Head of Department within one year of their appointment (Texas Administrative Code, 1998/2016, §449A).

It is key for Fire Officers and Chief Officers, regardless of their rank to remember they are role models and must exhibit the highest degree of performance and behavior to which their subordinates can pattern themselves after (Stowell & Adams, 2004). This expands to the activity of succession planning where the mentoring and guidance provided by Chief Officers helps shape the future of their department. It is through succession planning and preparing subordinates for future promotional opportunities that Chief Officers ensure that their subordinates are prepared for future duties and responsibilities and that the Fire Department continues to function effectively and efficiently (Purchase, 2017).

Another area of professional development that had to be evaluated were the NIMS/ICS training requirements. The *National Incident Management System Training Program* publication provided identified NIMS/ICS related training requirements set forth at the federal level (*NIMS*, 2011). The TCFP strongly recommends that all Fire Fighters be trained to meet the requirements ICS-100, ICS-200, IS-700, and IS-800 (*TCFP Curricula*, n.d.). The TCFP further requires that Fire Officers seeking credentialing at the Fire Officer III level must have completed ICS-300 training prior to certification (Texas Administrative Code, 1998/2016, §451.404). Likewise, for TCFP Fire Officer IV credentialing the applicant must complete ICS-400 training as a prerequisite (Texas Administrative Code, 1998/2016, §451.404). There are several other NIMS/ICS training requirements that impact fire service personnel. One such requirement is additional training programs that are required to function as a member of an Incident Management Team or Multiagency Coordination Center (*NIMS*, 2011). These are important considerations since Federal grant funding eligibility may be tied to these requirements.

The International Association of Fire Chiefs (IAFC) has also developed their own professional development guide published as the *Officer Development Handbook*. This publication focuses on the professional development of Fire Officers and Chief Officers only. No attention is given to Fire Fighters or Apparatus Driver/Operators. The guidance provided is largely based on NFPA 1021 (IAFC, 2010) and the USFA FESHE education model (IAFC, 2010). However rather than breaking down their guidance by each Fire Officer level the same as NFPA 1021, the IAFC separates their guidance by professional development levels. Additionally, each level of professional development is provided guidance addressing the following elements; 1) Learning, 2) Education, 3) Experience, and 4) Self-Development (IAFC, 2010, p. 13).

Establishing a professional development program or publishing a professional development guide is really an exercise in strategic planning for the Fire Department. That is to say that this endeavor has long term implications for the personnel individually and the organization as a whole. The likely results of professional development policy or guidance issued today may have a lasting impact on the organization 20 years into the future (Ward & Hubbard, 2016).

Two key component of this project and two of the underlying themes of all the materials reviewed revolve around the selection and adherence to appropriate performance standards and ensuring the training programs address all the varied components required to meet the needs of the individual and the organization (Purchase, 2006). The varied sources that were reviewed including industry standard publications and reference materials and local, state, and federal training guidelines, curricula, rules, statutes, and regulations provided a comprehensive and well-rounded bass of reference sources to extract Fire Department professional guidance material from.

Procedures

An action research method was used to develop a Professional Development Program Guide for the Port Arthur Fire Department. The research was conducted by reviewing National Fire Protection Association publications, Texas Commission on Fire Protection standards and curricula, State and local statutes, and local job descriptions.

A literature review was conducted to explore various contemporary professional development models in use today. Models and recommendations developed by various national, state, and educational organizations were explored. Expected job performance requirements and the associated knowledge, skills and abilities needed for each job description were explored. This

was achieved by reviewing the job descriptions for each rank/position in the Port Arthur Fire Department and reviewing the Port Arthur Fire Department's Policies and Procedures, Rules and Regulations manual, Local Civil Service Commission Rules, the current Local Collective Bargaining Agreement, State Local Government Code 143, and the certification requirements of the Texas Commission on Fire Protection. These were then compared and contrasted with the various applicable NFPA Professional Qualification Standards and TCFP certification curricula.

Recommendations for the initial and continuing professional development for each position in the fire department was developed and a guide was then developed to facilitate the professional development of fire department members throughout their career progression.

Some limitations were noted. One limitation was that this research primarily focused on the basic or minimum knowledge, skills, abilities and job performance requirements needed for each job description. There was little or no discussion on additional supportive training or education that would further enhance an employee's job performance/experience at each rank. For example, training and education requirements and/or suggestions for Special Operations assignments or special program management were not addressed. These additional areas may be best addressed in future guide revisions or in companion guidance documents.

Results

After conducting the literature review and evaluating the findings utilizing the procedures outlined above, all of the research questions were answered.

The first research question asked "What are the requisite knowledge, skills, abilities and job performance requirements for each fire department promotional position?" After reviewing the job descriptions for each rank position along with all the local, state, federal policies, rules, statutes and contractual agreements that address actual job duties, it was possible to determine

the true scope and depth of the expected job performance requirements, and limits of each rank/position. Based on the analysis of the information reviewed, it was determined that the following NFPA Professional Qualification Standards identify the requisite knowledge, skills, abilities and job performance requirements for each fire department promotional position:

| Port Arthur Fire Department Job Performance Requirements | | |
|---|--------------------------|--|
| | Rank/Job Position | NFPA Professional Qualification Standards |
| 1 | Fire Fighter | NFPA 472: Hazardous Materials Awareness |
| | | NFPA 472: Hazardous Materials Operations |
| | | NFPA 1001: Fire Fighter II |
| 2 | Fire Engineer | NFPA 1002: Driver/Operator - Pumper |
| | | NFPA 1002: Driver/Operator - Aerial |
| 3 | Fire Captain | NFPA 1021: Fire Officer I |
| | | NFPA 1021: Fire Officer II |
| | | NFPA 1041: Fire Service Instructor I |
| | | NFPA 1041: Fire Service Instructor II |
| | | NFPA 1521: Fire Department Incident Safety Officer |
| 4 | Battalion Chief | NFPA 1021: Fire Officer III |
| | | NFPA 472: Hazardous Incident Commander |
| 5 | Deputy Fire Chief | NFPA 1021: Fire Officer IV |
| 6 | Fire Chief | NFPA 1021: Fire Officer IV |

Table 2. Port Arthur Fire Department Job Performance Requirements

It is important to note that each rank/position builds on the former. Therefore, all must master the knowledge, skills, abilities and job performance requirements for the preceding rank/position in order to attain knowledge, skills, abilities and job performance requirements for those positions further up the Chain of Command.

The second research question asked "What training and/or credentialing programs are available to prepare members for promotion?" A review of the of the TCFP Certification Curriculum Manual showed that all the TCFP certification curricula are developed from the

NFPA Professional Qualifications Standards. Table 2 identifies the TCFP certification programs that are the most appropriate training programs available for the Port Arthur Fire Department to use to train and prepare employees for promotion. The certification training listed in Table 2 shows the requisite training that an employee must attain to meet the minimum requirements for each rank/position listed.

| PAFD Rank/TCFP Certification Correlation Table | | |
|---|--------------------------|---|
| | Rank/Job Position | TCFP Certification |
| 1 | Fire Fighter | Hazardous Materials Awareness |
| | | Hazardous Materials Operations |
| | | Basic Structure Fire Fighter |
| 2 | Fire Engineer | Driver/Operator - Pumper |
| | | Driver/Operator - Aerial |
| 3 | Fire Captain | Fire Officer I |
| | | Fire Officer II |
| | | Fire Service Instructor I |
| | | Fire Service Instructor II |
| | | Fire Department Incident Safety Officer |
| 4 | Battalion Chief | Fire Officer III |
| | | Hazardous Incident Commander |
| 5 | Deputy Fire Chief | Fire Officer IV |
| 6 | Fire Chief | Fire Officer IV |

Table 3. Port Arthur Fire Department Rank/TCFP Certification Correlation Table

Additional training programs that are specifically required to either enter into or complete many of the training and certification requirements listed above include various NIMS/ICS training programs. Per established federal, state, or local NIMS training guidelines, personnel will be required to attain the following levels of NIMS/ICS training as specified in Table 4 below.

| PAFD Rank/NIMS-ICS Trainin2 Correlation Table | |
|--|--|
| Rank/Position | NIMS/ICS Trainin2 |
| Fire Fighter | IS-700: National Incident Management System |
| | IS-800: National Response Framework |
| | ICS-100: Introduction to the Incident Command System |
| | ICS-200: ICS for Single Resources and Initial Action Incidents |
| Fire Engineer | Same as Fire Fighters |
| Fire Captain | ICS-300: Intermediate ICS for Expanding Incidents |
| Battalion Chief | ICS-400: Advanced ICS for Command and General Staff |
| | IS-701: NIMS Multiagency Coordination System (MACS) |
| | IS-702: NIMS Publication Information Systems |
| | IS-703: NIMS Resource Management |
| | IS-704: NIMS Communication and Information Management |
| Deputy Fire Chief | Same as Battalion Chief |
| Fire Chief | Same as Deputy Fire Chief |

Table 4. Port Arthur Fire Department Rank/NIMS-ICS Training Correlation Table

Although it may appear, based on the literature review, that Fire Captains may not need to complete any NIMS/ICS training above the ICS 200 level, it is quite common for Captains to staff positions on the City's Incident Management team and work in the Emergency Operations Center where ICS 300 training is required as a minimum. The need for additional NIMS/ICS training is even greater for Battalion Chiefs since they will almost always be assigned to a Command Staff or General Staff positions during emergency operations.

The last research question about responsibilities asks, "What are the responsibilities of both the individual and the organization in the professional development of the members?"

Based on the Port Arthur Fire Department's policies, the fire department is responsible for providing the training or access to the training and paying for any training or certification fees that may apply if the training or credentialing is a job requirement (PAFD, 2016). The Port

Arthur Fire Department also has a policy in place that provides for tuition assistance for certain training and education activities (*PAFD*, 2016). The individual's primary responsibility is to actively participate in the training, learn, and successfully fulfill any examination and credentialing requirements that may be required. If individuals wish to seek additional training or education beyond what the employer provides, they may do so at their own expense or through external funding sources, such as taking advantage of state or federally funded training programs.

Discussion

There are clear requisite local, state and federal knowledge, skill, and ability, and job performance requirements that must be met by all Fire Service personnel.

The National Fire Protection Association (NFPA) has developed professional qualification standards that identify the job performance requirements and the knowledge, skills, and abilities each employee needs to master in order to successfully perform their job duties.

The following list identifies the NFPA Standards that correspond directly to the Port Arthur Fire Department's job descriptions:

- NFPA 472: Standard for Competence of Responders to Hazardous Materials/Weapons of Mass Destruction
- NFPA 1001: Standard for Fire Fighter Professional Qualifications
- NFPA 1002: Standard for Fire Apparatus Driver/Operator Professional Qualifications
- NFPA 1021: Standard for Fire Officer Professional Qualifications
- NFPA 1041: Standard for Fire Service Instructor Professional Qualifications

- NFPA 1521: Standard for Fire Department Safety Officer Professional Qualifications

Refer to Table 2 for a breakdown on which standards best apply to which Port Arthur Fire Department job positions.

The Texas Commission on Fire Protection (TCFP) has developed certification curricula that meets the performance requirements of various NFPA professional qualification standards (Texas Administrative Code, 1998/2016). The TCFP provides certification testing for personnel when they successfully complete a certification training program. Personnel who successfully pass their certification examination may complete the TCFP certification process. The receipt of a TCFP certification indicates that the credentialed individual has mastered the job performance requirements and demonstrated they possess the knowledge, skills, and abilities to the indicated level of certification (Texas Administrative Code, 1998/2016).

All TCFP regulated fire fighters must meet the certification and credentialing requirements established by the TCFP (Texas Administrative Code, 1998/2016). The entry level training, certification, and education requirements for Probationary Fire Fighters of the Port Arthur Fire Department includes the following:

1. High School Diploma or Certificate of High School Equivalency (e.g. GED)
2. Texas Department of State Health Services (DSHS) Emergency Technician - Basic (EMT-B)
3. TCFP Hazardous Materials Operations
4. TCFP Basic Structure Fire Fighter
5. IS-700: National Incident Management System

6. IS-800: National Response Framework
7. ICS-100: Introduction to the Incident Command System
8. ICS-200: ICS for Single Resources and Initial Action Incidents
9. Courage to Be Safe: So Everyone Goes Home
10. Federal Highway Administration Traffic Incident Management Program

All new Fire Fighters must have achieved the above level of training, certification, and education prior to their hire date, or complete these requirements within their probationary period unless otherwise constrained by federal, state, local or department rule, ordinance, statute, regulation, or collective bargaining agreement (West, 1998). Since these entry level credentials represent the minimum level of training and credentialing for any employee of the Port Arthur Fire Department, the entire focus of this project was to explore training and credentialing for promotional advancement.

In order to meet the most minimum elements of their job duties (PAFD, 2016), all employees of the Port Arthur Fire Department need to maintain, at a minimum, the above credentials unless they:

1. Promote to a new rank or are assigned to a job assignment that has additional training, certification, and/or education requirements; or are
2. Required by Federal, State, Local or Department rule, ordinance, statute, regulation, or collective bargaining agreement to meet new/additional requirement(s).

Emergency medical response is a primary job duty of the Port Arthur Fire Department (PAFD, 2016). In order to continue to provide this service to the community effectively, all

personnel must be required to maintain the same level, or higher, of the TDSHS Emergency Medical Certification/Licensure they held upon employment.

For those employees who were not required to hold a TDSHS Emergency Medical Certification/License at the time of their employment, they need to achieve certification as a TDSHS Emergency Care Attendant (ECA) or higher, and maintain that certification/license throughout their employment with the PAFD.

As personnel promote they are required to assume additional levels of responsibility as well as function in command and control capacities commensurate with their position within the Fire Department's organizational structure (*PAFD*, 2016).

Per established federal, state, or local NIMS training guidelines, personnel must be required to attain the level of NIMS/ICS training as illustrated in Table 4 (*NIMS*, 2011).

Personnel should not be restricted from achieving higher levels of NIMS/ICS training/credentialing than their current rank/assignment since this would promote increased capabilities and professional growth.

Additional training/credentialing requirements may be required based on state, local, or department assignment to an Incident Management Team or job position (*NIMS*, 2011).

It is imperative that all employees possess the knowledge, skills, and abilities to effectively and efficiently perform their job duties safely and productively (*PAFD*, 2016). In order to ensure that every employee meets the job performance requirements for the position to which they are assigned, employees are required to complete certification training and successfully complete the credentialing process for the TCFP certifications that directly pertain to their job description. See the PAFD Rank/TCFP Certification Correlations as illustrated in Table 3.

It is a common practice to assign employees in the next lower rank to fill temporary acting positions in order to meet departmental staffing needs (*PAFD*, 2016). Therefore, it is not only important for employees to be adequately trained and credentialed at their current rank, they must also be prepared to effectively and efficiently perform the job duties of the next higher rank safely and effectively as well (Ward & Hubbard, 2016).

All employees must be required to begin and complete training and credentialing requirements for the next higher rank position upon promotion to a new rank. This will further broaden their base of professional knowledge, prepare them for the duties and responsibilities of the next higher rank when working in an acting position, and better prepare them for promotion (IAFC, 2010).

All employees must possess a High School Diploma or Certificate of High School Equivalency at their time of hiring (West, 1998). Although it is not statutorily required for promotion, it is strongly recommended that employees continue to pursue higher education (IAFC, 2010). Earning an Associate's Degree, a Baccalaureate Degree, Master's Degree, or a Doctorate will provide an employee with additional knowledge, skills, and abilities. These will assist them with the increasing duties and responsibilities they will be required to manage as they progress up the Chain of Command (Stowell et al., 2007).

The attainment of an Associate's Degree will enable the employee to apply for Master Fire Fighter credential status with the TCFP (Texas Administrative Code, 1998/2016, §423.9). This is also an excellent pathway to earning a Baccalaureate Degree, especially if care is taken to ensure that some or all of the Associate's course credits may be applied toward the Baccalaureate.

A Baccalaureate Degree is also the minimum educational requirement for appointment to the position of Fire Chief. It is also the minimum educational requirement for entry into the National Fire Academy Executive Fire Officer program (NFA EFOP, n.d.). The broad based general education, requirements coupled with the more focused core course requirements of a Baccalaureate program, produce well rounded individuals who have demonstrated the ability to work hard, solve complex problems and persevere.

Post Baccalaureate degrees such as a Master's Degree or Doctorate demonstrate a continued commitment to education and personal improvement. The growing trend in the Fire Service is the requirement of a Master's Degree for Fire Chief candidates (IAFC, 2010).

This project provides specific guidance on the training, certification, and/or educational requirements personnel must meet to successfully perform their job duties and prepare them for promotion and/or to serve in an acting capacity at the next promotional level. This project is intended to address the basic training, certification, and/or educational requirements for each rank.

Recommendations

I recommend the Port Arthur Fire Department adopt the Professional Development Guide document in Appendix C. The guide as developed will provide the employees of the Port Arthur Fire Department clear, specific guidance on the training, certification, and/or educational requirements personnel must meet to successfully perform their job duties and prepare them for promotion and/or to serve in an acting capacity at the next promotional level.

Additionally, I recommend that the Port Arthur Fire Department review and update as needed, both the job descriptions and the Professional Development Guide approximately every four years. Adopted job descriptions should be compared with the current NFPA professional

qualification standards and Port Arthur Fire Department job performance expectations.

Adjustments to the job descriptions should be made accordingly to keep them current and relevant.

These recommendations, if adopted, will provide the Port Arthur Fire Department and its employees with a clear, relevant guidance on how every employee can best prepare themselves to meet the job performance expectations of their job duties and prepare them for promotion and/or to serve in an acting capacity at the next promotional level. This will enable the Port Arthur Fire Department to better evaluate employees' performance for promotions and assignments and provide every employee with the knowledge, skills, and abilities they need to best serve the citizens of Port Arthur.

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