A Training Program Needs Assessment for the Fort Myers Beach Fire Department

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Certification Statement

I hereby certify that this paper constitutes my own product, that where language of others is set forth, quotation marks so indicate, and the appropriate credit is given where I have used language, ideas, expressions, or writings of another.

Signed: 

Date: March 22, 2019

Abstract

The problem was the Fort Myers Beach Fire Department had not conducted a needs assessment for its training program. The purpose of this research paper was to identify components of a training program that prepares Fort Myers Beach Fire Department personnel for current and future success. Descriptive research was used to answer the following questions: (a) What components of a training program are required to ensure local, state, and industry standards are met? (b) What are the training needs of the Fort Myers Beach Fire Department? (c) What are the expected benefits of a well-developed training program? Procedures for this research included literature review, review of the Fort Myers Beach Fire Department job descriptions and a Florida regulatory compliance document, an internal survey, and an interview of the department's Fire Chief. Results indicated that development of a training program comprised of mandated training subjects and a back to basics approach to fire-based knowledge, skills, and abilities would best serve the organization, it's personnel and the community. Recommendations included the use of industry standards for the development of the training program, performing task analysis to develop position-specific job performance requirements, and identification of outcome performance measures to evaluate training program effectiveness.

TABLE OF CONTENTS

Introduction

Fire departments depend on training to deliver the core service of emergency response in an effective, efficient, and safe manner. As core service responsibilities have increased to meet the needs of our communities, the all-hazard environment demands competency in multiple disciplines. Fire departments can longer use on-the-job training as a substitute for a well-developed training program (Thiel, 2012). The problem is the Fort Myers Beach Fire Department (FMBFD) has not conducted a needs assessment for its training program. The purpose of this research paper is to identify components of a training program that prepares FMBFD personnel for current and future success. The following research questions will be answered utilizing descriptive research: (a) What components of a training program are required to ensure local, state, and industry standards are met? (b) What are the training needs of the FMBFD? (c) What are the expected benefits of a well-developed training program?

Background and Significance

Established in 1949 as a volunteer fire department and incorporated the following year as a Special District of Florida, FMBFD has evolved into an all-career, all-hazards emergency response agency responding to over 3,400 calls for service annually. With administrative and operational staffing of sixty-four personnel, the department provides fire suppression, advanced life support transport and non-transport, fire and life safety code enforcement, hazardous material, technical rescue, public education, and other emergency and non-emergency services. These services are provided from three fire stations strategically located within the district. Two engine companies, one aerial company, two ambulances, and a shift command vehicle are staffed daily by a minimum of fourteen personnel. To augment available resources, the department

participates in automatic and mutual-aid agreements with the other Lee county fire service providers.

The response district is comprised of approximately ten square miles in Southwest Florida, including the Town of Fort Myers Beach and other areas of Estero Island and San Carlos Island. A full-time population of approximately 9,000 residents live within the district. This number increases to over 40,000 with seasonal residents. Over 1.8 million people visit the area annually due to its location along the Gulf of Mexico and that the area is a spring break destination (Fort Myers Beach Fire Department [FMBFD], n.d.; www.visitfortmyersbeach.com).

Lack of an organized training program focused on maintaining and improving fire-based job performance competencies has been an ongoing issue for FMBFD. As a licensed advanced life support transport agency, a comprehensive medical training program was developed and implemented that provides personnel with the required continuing education credits for state recertification and maintains and enhances both cognitive and psychomotor skills. Development and management of the medical training program is the responsibility of the Division Chief of Emergency Medical Services.

Traditionally, the type and amount of fire-based training at FMBFD was determined by the individual company officer. Although department policy provided guidelines for conducting daily training focused on fire suppression and tactics, driver training, officer development, and hazardous materials, with oversight for compliance given to the Shift Commander, it was still left to the company officer to train assigned personnel (R. Martin, personal communication, January 2, 2019). The department had developed single- and multi-company evolutions based on *National Fire Protection Association 1410, Standard on Training for Emergency Scene Operations*, but no other formalized training program exists. Previous attempts at organizing the

training to improve operational consistency fell to the wayside due to resistance from department members and lack of administrative support (R. Martin, personal communication, January 2, 2019).

The organizational culture towards training had become apathetic. Training had become a disciplinary tool used by some officers to gain compliance from subordinates (R. Martin, personal communication, January 2, 2019). The absence of an organized training program had led to a deterioration of fire-based skills creating a liability for the organization related to the effectiveness and efficiency of emergency response and firefighter safety.

The hiring of Fire Chief Matthew R. Love in 2016 brought a new direction for the organization. Through the work of an advisory committee, the department rebranded the organization's vision and mission statements towards being a best in class organization serving the community through the actions of a professional workforce (FMBFD, 2018). To deliver upon the new vision and mission, the need to develop a competency-based training program that prepares FMBFD personnel to mitigate the variety of incident types they will encounter became a priority.

In 2017, the Board of Fire Commissioners approved funding for the position of Assistant Chief of Training, Education, and Safety. The incumbent would have the responsibility for development, implementation, delivery, and management of the department's training programs. Furthermore, the department's strategic plan, adopted in June 2018, included goals and objectives related specifically to training. Goal 9 of the strategic plan is to "recruit and train for excellence throughout the workforce" (FMBFD, 2018, p. 36). Related specifically to the purpose of this research is Objective 9b of the strategic plan – "Ensure all employees meet job

performance requirements through fire and medical training in core competencies" (FMBFD, 2018, p. 36).

The problem statement for this research, FMBFD has not conducted a needs assessment for its training program, directly relates to the Executive Leadership course goal of developing the Executive Fire Officer's "ability to conceptualize and employee key processes used by effective executive-level managers in the exercise of adaptive leadership" (United States Fire Administration [USFA], 2015, p. vii). It also relates to a specific content area of the course from Unit One. Through identification of the organization's training needs and development of a program that produces a professional workforce, the organization will be moved from its current reality towards its aspired state (USFA, 2015).

This research directly links to Goal Three of the United States Fire Administrations Strategic Plan, 2014-2018. Goal Three is to "enhance the fire and emergency services' capability for response to and recovery from all hazards" (United States Fire Administration [USFA], n.d., p. 12). Through training, FMBFD will be better positioned to serve the community and promote a culture that enhances responder safety and survival.

Literature Review

Training refers to the planned effort to facilitate employee's learning of job-related competencies that are critical for successful job performance (Noe, 2017). Training also allows the organization to adapt to industry or environmental changes ("Purpose of Training," 2013). Serving as a mission-critical function, training affects the organization through policy, safety, operations, professional development, and succession planning.

A training needs assessment identifies the current level of competency in one or more areas and compares that level to required competency standards for positions within the

organization (Society for Human Resource Management [SHRM], n.d.). In *Employee Training and Development*, Noe (2017) identifies three elements of needs assessment: organizational analysis, person analysis, and task analysis.

The organizational analysis identifies how training supports the strategic needs of the organization and the organizational culture regarding training. The strategic role of training determines how the training function is organized within the agency and the frequency and types of training that will be conducted (Noe, 2017; United States Office of Personnel Management [OPM], n.d.). Noe (2017) contends that organizations that have adopted high-performance work systems, such as the team concept utilized in the fire service, are more likely to conduct more training and commit greater resources to the training function.

Support for training at all levels of the organization is critical when attempting to establish a culture that values training. This begins with the Fire Chief establishing that training is mission-critical and impacts all organizational areas. Training should be used to positively influence the organizational culture in the areas of performance and safety (Dennis, 2015). Support is further cultivated through positive attitudes towards participation in training from supervisors, instructors, and employees (Noe, 2017). Employee buy-in is gained by the development of knowledge, skills, and abilities and the opportunity to utilize training content on the job (Noe, 2017).

Person analysis identifies current or expected employee performance levels and the need for training to improve performance. Noe (2017) identifies the following pressure points, or reasons, that drive the need for training:

- Legislation
- Lack of basic skills

- Poor performance
- New technology/new products
- Customer requests
- Higher performance standards
- New jobs

Substandard performance is a major indicator of the need for training. Often indicated by low evaluation ratings, this problem begins to affect the organization through customer complaints, job-related accidents, and unsafe behaviors (Noe, 2017).

The final element of a needs assessment is task analysis. Once complete, the task analysis will result in a description of work activities and the knowledge, skills, and abilities required to complete the tasks specific to the position (Noe, 2017). Task analysis will also identify occupational gaps created by new services or programs offered by the organization (OPM, n.d.).

Purchase (2006) identifies the acronym AIDE as a four-stage process for fire department training program development. The first three stages, administration, implementation, and delivery serve as a foundation for the next stage. The final stage, evaluation, is used to provide feedback on the entire process. In the administration stage, the goals and objectives of the training program are identified and validated to be in line with the organization's vision and mission. It is during this initial stage that employee buy-in will be cultivated through the fire chief's support for the training program, developed policies, and content (Purchase, 2006).

The second stage of the AIDE process is implementation. During this stage, the program curriculum, training schedule, and documentation process will be developed. Curriculums are developed as groups of related courses that reflect the job performance requirements of a

specialized field of study (Purchase, 2006). For example, fire department training programs will have curriculums focused on firefighting, driver/operator, and officer development skill sets. Training schedules provide advanced notice of planned training events. The advanced notice provides time for the instructor, facility, and resource preparation and provides personal accountability of department members for attending training sessions (Purchase, 2006).

The importance of a documentation system for fire department training cannot be overstated. In the event of a post-incident investigation, especially those involving a line of duty injury or death, training records will be among the first to be reviewed (Purchase, 2006). Ensuring that instructors and officers are recording training in a consistent manner will ensure that organizational liability is kept to a minimum (Hyden, 2012).

The third stage of the AIDE process involves program delivery. In this stage, the organization will evaluate the qualifications of instructors and the availability and condition of training facilities and training props. Overlooking this stage of the process can have a negative impact on the organization, the instructor, and the student. The effectiveness of the program will be reduced thereby creating an ineffective emergency response which can undermine the public's confidence in the organization (Purchase, 2006).

Evaluation is the final stage of the AIDE process. The effectiveness of the training program will be found in outcomes realized on the emergency scene. The use of performance standards can be an effective method for the organization to evaluate fire department training. Performance standards will identify specific activities, the maximum amount of time allotted to perform the activity, and how often the department's teams shall meet the activity goal. Evaluation of the training program goals, objectives and organizational performance resulting

from training will ensure that all areas of service delivery, safety, and professional development are continuously improving and being delivered at the highest levels (Dennis, 2015).

Within the State of Florida, the Division of State Fire Marshal's Bureau of Fire Standards and Training (BFST) has oversight of firefighter training, certification and safety. Florida Statutes and Administrative Code establish the requirements for initial and advanced firefighting training and requirements of the fire service employer to provide ongoing training. To be certified as a firefighter in Florida, an individual is required to complete the Minimum Standards Course, receive a passing grade on the certification examination, and meet statutory requirements concerning age, minimum education, background, and tobacco use (Fire Prevention and Control, 2018). NFPA 1001 has been adopted by the Florida Administrative Code (FAC), and its JPRs serve as the foundation of the course curriculum.

The Florida Firefighter Occupational Safety and Health Act (FFOSHA) is established in Florida Statutes. The intent of this legislation is to enhance firefighter safety through implementation of policies, procedures, and standards that reduce the incidence of firefighter accidents, injuries, and fatalities (Florida Firefighter Occupational Safety and Health Act, 2002). The act requires that fire service employers provide training in the areas of firefighter safety. Additionally, the act adopts the federal Occupational Safety and Health Act (OSHA) standards and NFPA standards that have specific firefighter training requirements.

The Insurance Services Office (ISO) is a publicly-traded company that evaluates and provides insurance ratings for various industries, including the fire service. ISO provides a community with a Public Protection Classification using the Fire Suppression Rating Schedule (FSRS) to evaluate fire suppression and fire prevention capabilities (Freeman, 2015; "FSRS," 2019). The FSRS grades four components of the community's abilities to deliver fire

suppression capabilities: emergency communications, fire department capabilities, water supply, and community risk reduction. Within the area of fire department capabilities, the FSRS evaluates and grades fire department records to determine the type and extent of training delivered to fire department personnel and the number of personnel who participate in the training.

With the belief that training is a critical component for safe, effective, and efficient emergency activities, the FSRS covers a variety of training categories. ISO reviews the training for officer, driver, new driver, firefighter, and recruit positions. Training in these areas is to be focused on the strategies and tactics needed for fire control (Maynard, n.d.). A review of the department's pre-fire planning efforts is included in the training evaluation. Knowledge of the building inventory, including the unique hazards of individual occupancies, serves as an invaluable training opportunity and provides for firefighter safety. Table 1 lists the ISO training categories and minimum required hours to receive full credit.

Table 1

ISO Training Requirements

Position	Company Training	Driver Training	Officer Training	Facility Training	Hazardous Materials Training	Total
Firefighter	192	n/a	n/a	18	6	216
Driver	192	12	n/a	18	6	228
Officer	192	n/a	12	18	6	228

Fire training is to be conducted at both the fire station and a fire training facility to receive full credit with the FSRS. The training facility is required to have a drill tower, a burn building or room for live-fire training, and at least a two-acre area to conduct other drills. Departments are also required to have training resources including props, a training library, and audiovisual capabilities to present training classes (Maynard, n.d.).

Fire departments can participate in structure fire training both at a fire training center and at fire stations. If a training center isn't available, a department can substitute by using local streets and buildings. A training center should have a drill tower for ladder and rope work and advancing hose lines, a fire building where firefighters can fight live fires, and enough area to allow firefighters to conduct other types of drills. A complete fire training library, audiovisual equipment, and training props should also be available.

National Fire Protection Association (NPFA) is a nonprofit organization that develops codes that establish consensus standards designed to reduce risk and effects of fire (www.nfpa.org). Several of the standards address training requirements for fire departments. *NFPA 1500: Standard on Fire Department Occupational Safety, Health, and Wellness* (NFPA 1500) specifies minimum requirements for fire department programs concerned with the health and safety of the employees (National Fire Protection Association [NFPA], 2018). Chapter 5 requires the department to establish a training program with the goal of preventing occupational injuries and death. Additionally, the training program will provide department members with the knowledge, skills, and abilities to perform the duties and functions of their position (NFPA, 2018).

NFPA 1500 requires the fire department's training program to develop curriculums that meet the minimum requirements of professional qualifications standards related to the member's assigned functions. These professional qualification standards include the following:

- *NFPA 1001: Standard for Fire Fighter Professional Qualifications* (NFPA 1001)
- *NFPA 1002: Standard for Fire Apparatus Driver/Operator Professional Qualifications* (NFPA 1002)
- *NFPA 1021: Standard for Fire Officer Professional Qualifications* (NFPA 1021)

The standards identify minimum job performance requirements (JPRs) to be met for a member to serve in the position.

The process of agency accreditation analyzes all aspects of an organization to identify areas of improvement and becomes the focus for planning, evaluation, and decision making (Barakey, 2012). In the mid-1980s, the International Association of Fire Chiefs and the International City/County Management Association saw the need to develop a comprehensive process to evaluate fire and emergency services (https://cpse.org). This collaboration eventually produced the accreditation model administered by the Center for Public Safety Excellence (CPSE). CPSE defines fire service accreditation as "an all-hazard, quality improvement model based on risk analysis and self-assessment that promotes the establishment of community-adopted performance targets for fire and emergency service agencies" (https://cpse.org). Organizations seeking CPSE accreditation must complete the three components of the model - develop and adopt a Standards of Cover document based on a community risk assessment, develop and adopt a community-driven strategic plan, complete an organizational self-assessment.

As the demand for government accountability has emerged, organizations find themselves under increased scrutiny from the public and elected officials (Center for Public Safety Excellence [CPSE], 2015). The self-assessment component of the accreditation process provides a tool for agencies to identify strengths and weaknesses and establish plans for improvement. CPSE (2015) maintains that training is a core element of an organization's ability to deliver upon its mission and, development, delivery, and resources are evaluated as a performance category.

Training programs play a vital role in every organization, benefiting both the organization and the employee (Kulkarni, 2013). Organizational effectiveness is directly affected by the quality of training. Outcome performance measures evaluate the operational success of fire departments. Neither the organization nor the community is well served by placing determined numbers of apparatus and personnel on scene within a given time if the operation still results in the home burning to the ground (Avsec, 2016). Training programs ensure personnel have the knowledge, skills, and abilities to effectively and efficiently mitigate emergency incidents.

Training activities positively impact individual performance and improve employee morale (Aguinis & Kraiger, 2009). Effective and relatable training will enhance the ability of the employee to perform job functions at a high level and contribute to meeting the department's mission (Thiel, 2012). Firefighters who do not realize improvement in their capacity to perform on the emergency scene will become disheartened (Johnson, 2015). Well-developed training programs have the potential to improve employee self-confidence and instill a level of pride in one's abilities and the value of their place within the organization.

In summary, training serves as the foundation for effective, efficient, and safe emergency response by fire department personnel. Training program needs assessment begins with an analysis of three areas – organizational support for training, current performance and development of personnel, and job-essential tasks – to identify current competency and the desired level of performance. The needs assessment will identify and incorporate regulatory requirements and relevant industry standards into the training program, ensuring the organization is operating in a competent manner protecting itself, the employee, and the community.

Procedures

The purpose of this research paper is to identify components of a training program that prepares FMBFD personnel for current and future success. Descriptive research was performed to address the following questions: a) What components of a training program are required to ensure local, state, and industry standards are met?; b) What are the training needs of FMBFD?; c) What are the expected benefits of a well-developed training program? Procedures utilized for data collection included a review of local, state, and industry training requirements for Florida fire service agencies, review of FMBFD internal documents, a survey of FMBFD employees, and an interview of the FMBFD Fire Chief.

The initial research procedure used the FMBFD training library and online databases to identify resources for the literature review and the research questions. Internet search terms used to identify resources included needs assessments, fire department training requirements, value of training programs, Florida fire department training, Florida Statutes, Florida Administrative Code, OSHA, and variants of each term.

The second procedure involved document review to identify local, state, and industry standards related to fire department training. The first document reviewed was the *Guidance for*

Regulatory Compliance produced by the Florida Bureau of Fire Standards and Training. This document was created to assist departments in ensuring compliance with requirements found in Florida Statutes, Florida Administrative Code, and OSHA regulations (Florida Bureau of Fire Standards and Training [FBFST], 2016). The next document reviewed was ISO's *Public Protection Classification Summary Report for the Fort Myers Beach Fire Department* (PPC). This was reviewed to identify past performance in meeting an industry standard. The third document, CPSE's *Fire and Emergency Service Self-Assessment Manual* (FESSAM) was reviewed to identify best practices related to training for model fire service organizations.

The third procedure involved reviewing the FMBFD job descriptions. These were reviewed to identify specific training needs for each rank within the organization. For this research, job description review was limited to the ranks of Battalion Chief, Captain, Lieutenant, Engineer, and Firefighter. The Captain and Lieutenant ranks were grouped together as company officer.

The fourth procedure, an internal survey, was developed to identify the current level of experience and training of FMBFD's members and allowed the respondents to provide input towards the development of the department's training program. The survey was created using the online services of Google and was distributed through email to the members of the department. A request to complete the survey was sent to the forty-one members currently assigned to the Operations Division and four command-level officers. Thirty-three responses to the survey were received, resulting in a 73% return rate.

The final procedure was an interview with Fire Chief Matthew Love. Chief Love was interviewed by this researcher at the FMBFD administrative offices on January 11, 2019. Serving as Fire Chief of FMBFD since March 2016, Chief Love has over twenty-two years of

fire service experience. Chief Love began his career in Colorado and has served as both a career and volunteer department chief officer. With an extensive background in fire department training program management and delivery, this interview was conducted to provide insight into the Chief's vision for the department, the role training plays towards meeting the agency's mission and moving towards the vision, and the expected benefits of well-developed training programs.

Limitations of the research for this paper are associated with the survey procedure that was utilized. Although the survey created and used was developed to provide results for the second research question, failing to develop an external survey instrument limited results for the first and third research questions.

Results

Results for the first research question, what components of a training program are required to ensure local, state, and industry standards are met, were derived from reviewing the BFST's *Guidance for Regulatory Compliance,* ISO's PPC, and CPSE's FESSAM. To be compliant with Florida statute and administrative code, Florida fire departments must address the following training requirements as described in the Guidance for Regulatory Compliance:

- Hazardous Material Emergency Response Plan – OSHA 1910.120
    - The department will have a written plan that includes personnel roles, lines of authority, training, and communication.
    - All fire department members are trained to the First Responder Awareness level.
    - All fire department members are trained to the First Responder Operations level.
    - Incident Commanders of incidents at or above "Awareness" level has received a minimum of twenty-four hours hazardous materials operations training.

  - Incident Commanders can implement the Incident Command System.
  - Incident Commanders can implement the Emergency Response Plan.
  - Incident Commanders know and understand the hazards/risks of employees working in chemical protective clothing.
  - Incident Commanders can implement the local emergency response plan.
  - Incident Commanders are aware of the Statewide Emergency Response Plan (SERP) and the Federal Regional Response Team.
  - Incident Commanders know and understand the importance of decontamination procedures.
  - Annual refresher training of sufficient content and duration to maintain or demonstrate competencies is developed and delivered.
  - Training is documented.
- Respiratory Protection Program – OSHA 1910.134(c)
  - Department has a written program that is administered by a trained administrator.
  - Firefighter training relative to respiratory hazards during routine and emergency situations.
  - Firefighters trained in proper use, donning, doffing, limitations, and maintenance of respirators.
  - Procedures developed to regularly evaluate the effectiveness of the program.
- Respiratory Protection Training and Information – OSHA 1910.134(k)
  - Firefighters trained in the necessity of respirator, how improper fit, usage, or maintenance can compromise respirator protection.
  - Firefighters trained in limitations and capabilities of the respirator.

  - Firefighters trained in the use of the respirator in emergency situations and malfunctions.
  - Firefighters trained how to inspect, don, doff, use and perform seal checks.
  - Firefighters trained in procedures for maintenance and storage of the respirator.
  - Firefighters trained to recognize the medical signs and symptoms limiting or preventing the effectiveness of the respirator.
  - Training is conducted in a manner that is understood by the firefighter.
  - The department provides training before requiring use of a respirator.
  - New firefighters trained within the last twelve months do not have to repeat training if competency can be demonstrated, but training must be delivered within twelve months of previous training.
  - Retraining must be administered annually and whenever:
    - workplace changes or change of type of respirator renders previous training obsolete;
    - fighter knowledge or use of respirator indicate the firefighter has not retained competency;
    - situation arises that indicates retraining is necessary to ensure firefighter safety.
- Requirements Applicable to Fire Scenes – 69A-62.003, F.A.C.
  - All personnel expected to be tasked with two-in/two-out assignments have completed training to the minimum level of NFPA Firefighter I.
  - The department is familiar with the training standards of commonly used mutual and automatic aid agreements.

  - The department, responding under mutual or automatic aid agreements, is responsible for the training and certification of its own personnel.

- Minimum Requirements for Comprehensive Safety and Health Program – 69A-62.021, F.A.C.
  - The department has a written Safety and Health Training Program.
  - New firefighters and firefighters transferring assignment are trained in vehicle operating and equipment procedures.
  - Specialized training is provided to those firefighters and supervisors providing response, rescue, and mitigation of non-traditional fire suppression activities.
  - All emergency vehicle operators complete a sixteen-hour emergency vehicle operator course.
  - Training provided to officers and firefighters is commensurate with assigned duties.
  - Training is provided before performing activities.
  - Officers training is more comprehensive than firefighter training.
  - Training is conducted frequently enough to assure firefighter competency.
  - All training is documented, and a permanent record is kept.
  - The quality of officer and firefighter training is like that offered at Florida State Fire College.
  - Written procedures describing actions to be taken in situations involving special hazards and these procedures are included in the training program.

FMBFD's PPC evaluation was completed in April 2016. Providing fire departments with benchmarks for planning, budgeting, and justification of improvements, three aspects of a community's fire protection services are graded – emergency communications, water supply, and

the fire department's first alarm response and initial attack to mitigate fire loss. Fire department performance accounts for 50% of the overall score and is weighted at fifty points. Within the fire department evaluation is the category of training. The type and extent of training, along with the number of participating personnel, is evaluated. This category accounts for nine of the fire department's weighted fifty points. FMBFD's weighted score in the training category was 4.85 out of nine possible points. ISO is clear of one requirement related to training; if no record of training exists, then no credit will be given. The training category evaluated performance in the following areas:

Table 2

FMBFD ISO PPC Training - 2016

Training	Available Credit	Earned Credit
Facilities and Use	35	1.4
Company Training	13.78	25
Officer Training/Development	12	12
New Driver/Operator Training	5	5
Existing Driver/Operator Training	3.77	5
HazMat Training	0.95	1
Recruit Training	5	5
Pre-fire Planning Inspections	12	12

Serving as a component of the accreditation program for continuous organizational improvement, CPSE's self-assessment model enables fire service organizations to evaluate and

benchmark their current status in ten performance categories. Category VIII – Training and Competency evaluates the organization's training requirements, performance, and available resources. The following criteria and performance indicators are used to evaluate training within the self-assessment process:

Table 3

CPSE Category VIII: Training and Competency

8A: Training and Education Program Requirements
8A.1 Process in place to identify training needs
8A.2 Training program is consistent with the organization's mission statement
8A.3 Training program is consistent with legal requirements for mandatory training
8A.4 Minimum levels of training are identified for all positions
8A.5 Professional development programs encourage professional credentialing
8B: Training and Education Program Performance
8B.1 Process in place to ensure personnel are properly trained
8B.2 A training schedule is developed that meets the organization's needs
8B.3 Individual/crew performance is evaluated by performance-based measures
8B.4 Student evaluations are used to assess training reliability
8B.5 Training records management system is maintained by the organization
8C: Training and Education Resources
8C.1 Facilities and apparatus are available to serve organizational training needs
8C.2 Instructors are qualified and have the expertise to meet training needs
8C.3 Instructional resources are current and readily available
8C.4 Established process to acquire or develop instructional resources

8C.5 Training equipment is properly maintained
8C.6 Training equipment and resources are inventoried
8C.7 Established process for identification of relevant training resources
8C.8 Training equipment and resources are evaluated at least annually for relevance

Note. Adapted from CPSE, 2015, Fire and Emergency Service Self-Assessment Manual, p. 134-135.

Results for the second research question, what are the training needs of FMBFD, were obtained from the Fire Chief interview, review of job descriptions for operations-level positions, and the internal survey.

Chief Love has served as FMBFD's Fire Chief since 2016. Upon arrival, the organization embarked on a 12-month process to rebrand the organization. This included new vision and mission statements. Chief Love views vision and mission as tools for organizational betterment that are ingrained in all members (M. Love, personal communication, January 11, 2019). Related specifically to training, FMBFD's training program will be a catalyst for the achievement of operational missions and training will be a top priority and responsibility throughout the organization. Chief Love stated, "Holistically, we will strive to create the ultimate responder, not single-sourced in any one expertise, but an all-risk responder prepared for any community need" (M. Love, personal communication, January 11, 2019).

Chief Love's vision of the FMBFD training program includes a series of systematic programs that guide personnel through professional development to include education, certification, and competency (M. Love, personal communication, January 11, 2019). Members will be presented with a list of career and development path options to achieve their goals and the goals of the organization (M. Love, personal communication. January 11, 2019). An outcome-based mindset, coupled with a system of succession planning, will allow the organization to sustain operations and enhance their quality in the future.

FMBFD's job descriptions begin with the firefighter position, describing minimum qualifications and KSAs required to perform functions of the job, and build upon each other preparing the individual employee for promotion to the next rank. Firefighters are hired into the organization certified as a firefighter in the State of Florida or are placed into an approved fire academy to be certified within one year of employment. All other ranks are required to be certified as a firefighter in the State of Florida.

All ranks must possess and demonstrate knowledge and proficiency in the following areas:

- Fire behavior
- Fire chemistry
- Firefighting safety
- Firefighting tactics
- Hazardous materials
- Technical rescue
- Emergency medical skills

Additionally, officers must possess knowledge of principles and practices of effective supervision, administration, and incident management. Formal education also becomes a requirement at the company officer position. Company officers are required to have an associate degree, while promotion to the rank of Battalion Chief requires a bachelor's degree. Table 4 lists certifications required for each rank.

Table 4

FMBFD Required Certifications by Rank

Certificate	Firefighter	Engineer	Company Officer	Battalion Chief
FL Firefighter	X	X	X	X

FL Fire Officer I			X	
FL Fire Officer II				X
FL Fire Instructor I			X	
FL Fire Instructor II				X
FL Pump Operator		X	X	X
FL Aerial Operations		X	X	X
EVOC	X	X	X	X
NIMS Compliant	X	X	X	X
NIMS ICS 300			X	X
NIMS ICS 400			X	X
NWCG L180	X	X	X	X
NWCG S130	X	X	X	X
NWCG S190	X	X	X	X
NWCG S215	X	X	X	X
NWCG S330				X
HazMat Ops or Tech	X	X	X	X
Confined Space	X	X	X	X

Ops or Tech				
Trench Rescue Ops or Tech	X	X	X	X
Rope Rescue Ops or Tech	X	X	X	X
Water Rescue Ops or Tech	X	X	X	X

The internal survey was created to identify the current level of experience and training of FMBFD members. Although individual responses were provided to each question, they have been placed into ranges, where appropriate, to simplify reporting. Questions one and two were created to identify years of experience of current FMBFD members. Question one asked respondents to identify years of service with FMBFD. Average years of service with FMBFD of those responding to the survey was nine years.

Table 5

FMBFD Years of Service

Years of Service	Count
2 or less	8
3 to 5	5
6 to 10	5
11 to 15	6
16 to 20	6
Greater than 20	1

Question two asked respondents to identify the total years of fire service experience. Average fire service experience was 11.9 years.

Table 6

Total Years Fire Service Experience

Years of Service	Count
2 or less	4
3 to 5	6
6 to 10	6
11 to 15	5
16 to 20	5
Greater than 20	5

Question three, created to identify current training levels, asked respondents to identify fire certifications they held. This question received twenty-five responses. Results from this question indicate the workforce has been actively engaged in completing certification courses required for promotion. Table 7 lists Florida certifications and the count of FMBFD members certified in the discipline.

Table 7

Certifications Held by FMBFD Members

Certification	Count (% of responses)
FL Pump Operator	25 (100)
FL Fire Officer I	19 (76)

FL Fire Officer II	15 (60)
FL Fire Officer III	2 (8)
FL Fire Officer IV	0 (0)
FL Fire Instructor I, II, or III	18 (72)
FL Safety Officer	0 (0)
FL Incident Safety Officer	2 (8)
FL Health and Safety Officer	0 (0)
FL Fire safety Inspector I or II	2 (8)
FL Investigator I or II	2 (8)
FL HazMat Technician	1 (4)
FL Technical Rescue/Trench Rescue I or II	5 (20)

Question four asked respondents to identify the highest level of formal education they have completed. This question received thirty-two responses. Sixty-five percent of the respondents have completed a formal education degree program, while fifty-three percent indicate they are currently pursuing a higher level of formal education. Table 8 lists education levels and count of FMBFD members that have attained the level.

Table 8

Education Level of FMBFD Members

Education Level	Count (% of responses)
Some college-level coursework	11 (34.4)
Associate degree	5 (15.6)

Attained associate, working towards bachelor's degree	5 (15.6)
Bachelor's Degree	9 (28.1)
Attained bachelor's, working towards master's degree	1 (3.1)
Master's Degree	1 (3.1)

Question five asked respondents, in their opinion, has the training provided by FMBFD assisted with maintaining basic firefighter KSAs. All respondents provided an answer to this question. Almost seventy-six percent of the respondents indicated that training has been sufficient to maintain basic firefighter KSAs.

Question six asked respondents, in their opinion, has the training provided by FMBFD assisted with preparing them for the next step in their career progression. All respondents provided an answer to this question. Over sixty percent of the responses indicated that FMBFD training had prepared them for promotion.

Question seven asked respondents to identify training subjects they had participated in within the past two years. Subjects were relatable to all ranks within FMBFD. Thirty-two of the respondents responded to this question. Table 9 lists training subjects and the number of respondents that have participated in the training.

Table 9

Training Subjects and Participation Past Two Years

Training Subject	Count (% of responses)
SCBA	26 (81.3)

Hose Line Management	28 (87.5)
Ground Ladders	29 (90.6)
Search/Rescue, VES/VEIS	27 (84.4)
High Rise Fire Operations	26 (81.3)
Residential Structure Fire Operations	25 (78.1)
Commercial Structure Fire Operations	15 (46.9)
Elevator Operations or Rescue	19 (59.4)
Forcible Entry	28 (87.5)
Vehicle Extrication/Stabilization	14 (43.8)
Live Fire Evolutions	12 (37.5)
Truck Company Operations	12 (37.5)
Engine Company Operations	25 (78.1)
Driver/Operator Training	20 (62.5)
Ventilation	14 (43.8)
Incident Command/Incident Management	12 (37.5)
Basic or Advanced Rope Training	11 (34.4)
HazMat Operations or Technician Level Training	1 (3.1)
Company Officer Development	12 (37.5)
Firefighter Survival	15 (46.9)
Rapid Intervention Training	23 (71.9)
USAR Training	1 (3.1)

Question eight asked respondents to identify the firefighter skills they have performed on emergency scenes during the past two years. The responses to this question, when compared to responses from question seven, hoped to derive if call volume and incident types were giving personnel the opportunity to use skills honed in training to use during actual emergencies. Table 10 lists firefighter skills and the count of personnel who have used the skill during the past two years.

Table 10

Use of Skills on Emergency Scenes

Skill	Count (% of responses)
SCBA used in IDLH	29 (90.6)
Deployed Hose Line for Fire Attack (Structure, vehicle, outside fire)	25 (78.1)
Hydrant Operations	15 (46.9)
First Due Engineer Duties (Ensure water supply, pump lines, etc.)	8 (25)
Performed Forcible Entry	16 (50)
Performed Primary/Secondary Search (Including VES/VEIS)	8 (25)
Deployed Ground Ladder	14 (43.8)
Performed Firefighter Elevator Operations or Rescue	19 (59.4)
Performed Vehicle Extrication or Stabilization	9 (28.1)
Performed Ventilation	12 (37.5)

(Horizontal, vertical, PPV)	
Served as Incident Commander	8 (25)
Assigned to Rapid Intervention Function	12 (37.5)

Question nine asked the respondents, in their opinion, has the training provided by FMBFD improved consistency in operations across all stations and shifts. Thirty-three responses were received to this question with almost 58% indicating that training has not improved operational consistency.

The final question of the internal survey provided the opportunity for the respondent to give input towards the training subjects that should be included in the training program. When grouped with individual skills, such as ladders or hose line management, over seventy-one percent of the respondents believe the training program should focus on reinforcing basic firefighter skills. Live burn evolutions, incident management, and officer development were the next most commonly indicated subjects.

Results for the third research question, what are the expected benefits of a well-developed training program, were identified during research for the literature review and from the Fire Chief interview. Identified benefits include improved safety, improved morale, consistency in operations, and improved outcomes. One of the most valuable benefits of training is improving safety. Employee awareness of safe operating procedures is learned under controlled settings instead of on the emergency scene. Reducing workplace accidents and injuries through training benefits the employee and the organization.

Training programs can improve morale. Through training, employee confidence and pride in their job is improved by their mastery of skills and procedures. Providing the opportunity to attend training conferences and seminars are examples of the organization's

investment in employee development. These contribute to employee satisfaction with their role within the organization and with the organization itself.

The training program will contribute towards attaining consistency in operations. Standard operating procedures are developed with a specific outcome or objective in mind. Recognizing that the emergency scene is dynamic and that not all responses are "cookie cutter", standard operating procedures provide a foundation for personnel to base their decision-making. Training provides the opportunity to put standard operating procedures into practice, becoming second nature to personnel and followed on all responses. To this end, the community will be better served through the effective and efficient mitigation of emergency incidents.

The organization should realize improved operational outcomes secondary to a well-developed training program. Traditionally, the fire service has focused on outputs as the measure of performance, evaluating response time performance and the ability to put a determined number of firefighters or apparatus on scene within a given time for a fire. Outcomes measure the success of the operation. For example, the attack team was able to confine the fire to the room of origin thereby reducing property loss and possibly protecting the lives of victims in other areas of the structure. Outcome performance measurement should be used to evaluate the effectiveness of the training program and identify areas of performance needing attention.

Discussion

The problem is the FMBFD has not conducted a needs assessment for its training program. Organizational, personnel, and task analysis must be conducted to identify these needs. Failure to adequately train fire department personnel jeopardizes their safety and exposes the organization to significant legal liability (Thiel, 2012). FFOSHA mandates that fire service

employers provide training that meets federal OSHA regulations in the areas of hazardous materials and respiratory protection. Furthermore, Florida Administrative Code requires fire departments to provide training to officers and firefighters that are commensurate with their assigned duties; the training is conducted frequently enough to assure competency; and the training is documented (FBFST, 2016). Although Florida has established minimum criteria for certification as a firefighter and developed pump operator and fire officer certifications, it has yet to develop a statewide program of required training to recertify these certificates. Therefore, it is the responsibility of FMBFD, and all Florida fire departments, to develop and provide training that enables personnel to operate safely and effectively on an emergency scene (FBFST, 2016).

ISO's PPC for FMBFD revealed gaps in the content and delivery of training. FMBFD received low scores in two areas, facility-based and company training. The low score for facility-based training was expected as FMBFD does not have an ISO-approved training facility within proximity to the response district. Lack of training program management and failure to understand the importance of training documentation contributed to the low mark in company training. Third party industry standards, such as the PPC, can be used to evaluate the effectiveness of training and identify components that improve the overall training program.

Training programs must continue to develop the competencies needed to operate on an emergency incident within the organization's established procedures (Purchase, 2006). Each of the operational ranks within FMBFD's structure is required to maintain proficiency in basic firefighter competencies. Responses to the internal survey support a training program focused on basic firefighter skills. Reinforcement and mastery of basic skills will serve as the foundation to best prepare personnel for the many aspects of operations they will be confronted with (M. Love, personal communication, January 11, 2019).

As realized by most of the nation's fire service, FMBFD's fire and rescue call volume has decreased when compared to its medical call volume. This has the collateral effect of reducing opportunities to utilize essential firefighter skills on emergency incidents. Therefore, proficiency on the emergency scene will be the direct result of training (Smeby, 2014). FMBFD has relied on a company officer directed in-service training program lacking consistency, accountability, and support (R. Martin, personal communication, January 2, 2019). "Training programs that meet the needs of the organization must be developed, and proper management of that plan must be implemented to maximize the benefit" (Dennis, 2015, p. 535).

Recommendations

The purpose of this research paper is to identify components of a training program that prepares FMBFD personnel for current and future success. Based on the information garnered from this research, the following recommendations have been developed:

- The Assistant Chief of Training will form a Training Advisory Group (TAG) consisting of one member from each rank, labor representation, and Administrative Chief Officers.
- The TAG will evaluate current department programs for compliance with FFOSHA and Florida Administrative Code and develop programs and policy to ensure compliance.
- Utilizing NFPA 1500 and CPSE's FESSAM Category VIII as a guide, the TAG will develop a training program and annual training plan that ensures compliance of mandated training and uses a back to basics approach for fire-based training.
- Utilizing NFPA 1001, 1002, and 1021, the TAG will develop competency-based task books for probationary firefighters and employees qualifying to work out of class.
- The Training Division will conduct a task analysis of each position and develop JPRs to evaluate proficiency in specific competencies.

- The Training Division will develop company evolutions specific to FMBFD standard operating procedures and incorporate these into the annual training plan. Evaluation of single- and multi-company performance to these standards will be used to improve operational consistency.
- Output and outcome performance measures will be identified and used to evaluate the effectiveness of the training program and the overall value of the department's service to the community.

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