

Company Fire Inspections: Are We Doing The Best We Can?

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Certification Statement

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

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Abstract

The Effingham Fire Department (EFD) instituted a fire code inspection program which began to draw criticism from business owners relating to the consistency and required fire code compliance. The basis for this research project was to determine if the EFD was doing the best it could in conducting fire code inspections, consistently following established standards and if personnel conducting inspections were receiving proper training. Research utilized a combination of literature review, data from EFD records, and surveys conducted with fire departments and business owners. Results indicated EFD personnel were not receiving proper training with regard to fire code enforcement. The recommendations included both informal and formal training programs be established and a more qualified individual be trained on each of the three shifts.

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Introduction

Prior to 2005, the City of Effingham Fire Department (EFD) did not have a formal fire inspection program in place in accordance with State law for all public occupancies. Fire inspections conducted prior to 2005 only addressed minor infractions in the old downtown section of the City with no actual follow-up or enforcement. In 2004, the City hired a new Fire Chief who was given direction to establish a fire inspection program that would meet the State requirements.

A formal fire inspection program was initiated in January 2005 utilizing on-duty firefighters to conduct the inspections. Within two years of the program, business owners began to complain about how the inspections were being conducted and the discrepancies between the firefighters identifying violations to businesses.

The purpose of this research was to investigate the issue of fire inspections accurately and consistently being conducted by fire department personnel and if personnel have received proper training in order to conduct such inspections.

Evaluative and descriptive research was utilized to answer the following:

1. What level of training have firefighters received in regard to fire inspections?
2. What is the attitude of the firefighters conducting fire inspections?
3. Are fire inspections being conducted following fire department standards?
4. How do businesses within the City view fire inspections being conducted overall?
5. What, if any, are the advantages and/or disadvantages of a dedicated fire inspector versus the current on-duty fire company inspection program?

Background and Significance

The City of Effingham (City) is located in central Illinois, situated 100 miles east of St. Louis, Missouri, and 140 miles west of Indianapolis, Indiana. The EFD has a service area of ten square miles with Interstates 57 and 70 intersecting within the City. The area is a mix of residential, commercial, and industrial including 19 hotels, a 1,500-seat indoor entertainment theater, a convention center, a six-story hospital, and four large truck stops with over 1,500 semi-tractor trailers staying overnight daily. The City serves as the county seat including the county jail and courthouse, State Police District 12 headquarters and IDOT maintenance facility. Two major rail systems, CSX and Canadian National, intersect through the center of the City with a combined freight schedule of 88 trains daily in addition to AMTRAK commuter rail service with a stop in Effingham. A local college satellite campus with no on-site housing along with two high-schools, one junior high school, and six private and public grade schools are also in the service area. The population as of 2010 was 12,328; however, dependent on workforce, occupancy of facilities and businesses, and special events, the population is estimated to be between 40,000 and 50,000 daily (Census Viewer, 2010).

The EFD is a combination department operating out of two fire stations with 15 full-time firefighters working a 24 hours on 48 hours off schedule with 5 firefighters assigned to each shift. The Fire Chief and Executive Secretary work a 40-hour work week with the Fire Chief on-call 24 hours a day responding to respective incidents. There are 20 paid-on-call firefighters that supplement the full-time firefighters and are paged out simultaneously on specific calls. The department provides fire suppression, rescue, fire prevention, and public education services. In addition, the department is part of an elaborate mutual aid system in Illinois, the Mutual Aid Box

Alarm System (MABAS), which under our Division 54, the department has several personnel, both full-time and paid-on-call, who are part of a Regional Hazardous Materials Response Team.

All department personnel are state certified at minimum to Firefighter II and Hazardous Materials Awareness within one year of appointment. All Lieutenants are state certified Fire Officer I and all Captains are state certified Fire Officer II. In addition, all personnel have various state certifications in various fields including Vehicle Machinery Operations (extrication) and Hazardous Materials Technician levels.

In November 2004, the City hired a new Fire Chief and gave him a directive to establish a fire inspection program for all public occupancies that would meet the state statutory requirement in conducting fire inspections (Fire Investigation Act, 2010). The directive was due in part to the Illinois State Fire Marshal having previously shut down a portion of the Effingham County Courthouse Building due to severe fire code violations that prevented a clear unobstructed means of egress for employees on the third floor.

The Fire Chief advised the City to adopt by City Ordinance the minimum state fire code in effect in order to enforce the fire code locally. On December 21, 2004, the City adopted by Ordinance the National Fire Protection Association (NFPA) Life Safety Code 101-2000 edition in its entirety (Life Safety Code, 2004). The Fire Chief then met with the full-time firefighters to explain a fire inspection program and how it would be instituted within the City. After meetings with the full-time firefighters, the Fire Chief assigned a Lieutenant as the Fire Prevention Officer to oversee the fire inspection assignments.

A department standard operating procedure was established in January 2005 and reviewed through training sessions with all full-time personnel (Appendix A). During this same period, the Fire Chief began meeting with area businesses to inform them of the fire inspection

program and answer any questions they would have. The Effingham Chamber of Commerce published an article in their January 2005 newsletter informing all of their members of the new program ("Business inspections," 2005).

The full-time officers at the time each had a class in Fire Prevention Principals as part of their Fire Officer training. None of the firefighters had received any formal or informal training in code education and/or enforcement. All full-time personnel received internal minimal training on conducting fire code inspections in January 2005 and followed an established inspection form to assist them (Appendix B).

The next issue was to address the number of public occupancies in the City to be inspected. There was no formal occupancy permit process within the City and therefore no means by which to identify the number or type of occupancies that existed. This required the EFD to manually build a data base in FireHouse® software. With no formal records available, the EFD utilized a telephone book listing to identify existing businesses within the City which resulted in over 1,200 businesses but did not take into account vacant buildings. This indicated over 100 primary inspections would need to be done a month if each occupancy was to be inspected annually. This did not take into account re-inspections to follow up on violations, station duties, training, and call volume handled by the on-duty crews. It was clearly unrealistic to assign so many inspections especially under a new fire inspection program. The decision was to assign 20 primary inspections to each shift in a 30-day period along with any re-inspections. The inspections were assigned by the Fire Prevention Officer every 30 days along with any re-inspections. The inspections and re-inspections were entered into FireHouse® by the Fire Prevention Officer and monitored for compliance.

The Fire Prevention Officer received additional formal training for enforcement and understanding of the fire code, along with course work to become state certified as a Fire Prevention Officer, which was completed in 2007. During this same period, the duty crews received additional internal training on code enforcement and understanding of the Life Safety Code. External instructors were also brought in to provide further training.

In 2006, as the inspections began making a second round, business owners began to question the manner in which they were being conducted. Several business owners believed the inspections had a “piling on effect” being cited for violations not previously cited in a previous fire inspection. Several meetings with business owners were conducted to address concerns and to discuss specific situations. It was found at the time as the rotation of inspections was being assigned by the Fire Prevention Officer, the same duty crew would not necessarily be conducting the inspection. As a result, one crew identified a violation not previously cited in the last inspection by another duty crew. A meeting was held by one of the business associations, the Southtown Business Association, to address some of these issues. What was thought to be a meeting between the City and the Association was found to also include the local newspaper. As a result, an article appeared a few days later regarding the issue (Wiedman, 2006).

Over the next few years, periodic complaints were made to the City relating to the inconsistency of fire inspections. It was clear each of the duty crews from the three shifts were conducting fire inspections differently thereby supporting the inconsistency of fire inspections being conducted. There were concerns by City administration as well as the firefighters that inspections were not meeting the established standards or that not everyone had a full understanding on how to conduct fire inspections. However, the City remained committed to

continuing the fire inspections as required by state statute under the current process but directed the Fire Chief to review the program.

The research project is based on the United States Fire Administration (USFA) Executive Fire Officer Program, Executive Development. It relates to two of the strategic goals to provide leadership, “Reduce risk at the local level through prevention and mitigation” and “Improve the fire and emergency services’ professional status” (FEMA, 2013, p. II-2). The EFD is committed to providing quality services to the citizens we serve in the most professional manner possible. In Unit 7 of the program, Organizational Culture and Change, the EFD and business owners need to both have a clear understanding of the ultimate goal of the fire inspections, to provide for a safe environment of our customers. The culture of the past has been that we have always done it this way, so why change. The EFD must work to change the culture in the community and within the EFD to ensure the ultimate goal of safety is achieved. The need to better educate both the business owners and EFD personnel needs to be addressed and determine ways to do it better.

Literature review

The United States has one of the highest fire loss rates of the industrialized world. (FEMA, 1997, p. 1). The Illinois State Fire Marshal is currently proposing to update the current edition of the NFPA Life Safety Code from 2000 to 2012. This change is being met with great resistance from special interest groups across the state who believe the current fire code is already too restrictive.

Tradition in the fire service can provide a wealth of knowledge and experience, both positive and negative. Some of these traditions are not always widely known within a particular organization other than it’s the way it’s always been done, To change any culture is not always

easy and takes an understanding of why the culture, or tradition, needs to be changed. Fire departments who wish to change conditions within public buildings need to educate property owners as to why the fire code requires certain factors. Citations and compliance under threat often result in business owners coming in to compliance with a grudge. The intent of the fire code is lost and respect for the fire code and the fire department enforcing it is shattered. In these types of situations, repeat fire code violations occur and only serve to raise the frustration levels of all parties involved (Grant & Hoover, 1994).

Every effort should be made by business owners that the efforts of the local fire department are directed at maintaining a business as a vital contribution to the economy of the community (Brannigan, 1992). Brannigan believed maintaining the building in a fire safe condition through inspections would ultimately not only save lives but jobs of all employees and financial stability in the community.

The U.S. Fire Administration reported fires in the United States between 2003 and 2007 were down in nonresidential buildings (TriData, 2008, p. 70). Substantial public and private fire prevention efforts have focused on protecting nonresidential buildings relative to the residential fire problem. National estimates of nonresidential building fires and losses account for only seven percent of fires, three percent of deaths, and seven percent of injuries (TriData, 2008, p. 70). This provides a clear indication nationally on the effectiveness of fire inspections in all public facilities.

An article in Fire Engineering stated, "Code enforcement is the basis for fire prevention inspections, and the inspection process is the very backbone of the fire prevention program." (Coffman, 2013, p. 3). Ben Coffman identifies code enforcement models that include personnel being trained to the level of enforcement they will be performing and the legal authority

(Coffman, 2013). Mr. Coffman identifies several staffing levels for effective code enforcement to include dedicated uniformed personnel, civilians that are properly trained and qualified, use of part-time firefighters, and uniformed fire inspectors following up on inspections by field suppression units (Coffman, 2013). Tight budgets during the current economic times further change the makeup of staffing to accomplish a fire inspection program which is evident across Illinois.

In an article published in Firefighter Nation, Matthew Tobia states most business owners and political leaders are not focused on fire prevention. Most businesses do not have an emergency or recovery plan should they experience a fire (Tobia, 2013). Mr. Tobia feels most company officers do not see themselves as loss prevention officers but only as firefighters. They tend to be less enthusiastic about performing fire inspections (Tobia, 2013). Firefighters may not see the importance of a business and the tax revenue being generated as being critical to the budget of the municipality.

Building officials may not have a clear understanding of the fire code requirements since their field is based on the construction, electrical and plumbing aspects of a building. Under normal conditions, existing buildings change occupancy and age over time thereby losing their original built-in safety measures. Discovered safety issues in existing buildings if left uncorrected can have a serious effect should a fire ever occur. Most firefighters joined the fire department to fight fires but must recognize that performing fire inspections in their community makes building owners more aware of our presence (Love, 2009). By not conducting regularly scheduled fire inspections, business owners become complacent and do not properly maintain their facilities within the fire code. Ensuring buildings remain fire code compliant reduces firefighters exposure to greater risks resulting from unsafe conditions (Love, 2009).

Departments that rely on on-duty companies to conduct fire inspections may find crews selecting inspections based on expedience rather than importance (Donner, 1997). Chief Donner found company officers assigned too many inspections will run out of time, intentionally blow off the inspection, or do it quickly and sometimes sloppily just to get through it. Chief Donner utilized a risk factor to determine the life safety hazard of a particular building to determine the priority of the business being inspected. Because the inspection program encouraged firefighters to think about specific hazards and rescue problems associated with the business, they were better prepared to deal with emergencies when they occurred (Donner, 1997).

Firefighters conducting fire inspections must have a clear understanding of what they are doing. “Responsible fire prevention begins with quality training of fire inspectors” (Buckmann, 2006). Chief Buckmann believes firefighters should have the knowledge to explain a particular violation and why it was important rather than just citing it. “Inspectors should be aware of which codes apply to a facility prior to performing an inspection, to ensure that they do not present poor information to a building representative” (Buckmann, 2006, p. 416).

The idea of companies doing fire inspections is viewed as “busy or feel good” work performed by another group in the fire department (Lacey & Valentine, 2009, para. 6). The company officer can educate his firefighters to understand fire prevention and how they individually can have an impact. The end result should be to prevent loss of life and property and make sure the entire shift goes home. The task is to get a buy in by all personnel to embrace the cultural shift that fire inspections are an important aspect of the job (Lacey & Valentine, 2009).

The position of fire inspector is by some considered a fire prevention professional. The various fire code requirements of occupancies and types require thorough knowledge of

amendments, prevention policies, building systems, and in some cases legal aspects (Gray, 2011). Although firefighters are capable of learning all the aspects of fire codes, the question is whether they should be expected to maintain the most up-to-date information in addition to other aspects of their jobs. The scheduling of follow-up inspections based on their schedule rotation or availability to answer questions from business owners or a contractor also needs to be considered. There are many facets of fire prevention and code enforcement that can be accomplished by on-duty crews but a complete building inspection simply should not be replaced by a walk through inspection by on-duty crews (Gray, 2011).

Getting firefighters involved can get them to embrace conducting fire inspections. A number of fire departments around the country involve firefighters to identify high-risk areas. Getting them engaged in community risk reduction will require training in order to be successful. With no training, firefighters will legitimately complain about doing anything without the skills or tools to do it well (Crawford, 2012). Fire prevention is not generally embraced by firefighters but remains one of the most vulnerable programs during budget cuts.

The literature review clearly supported documentation supporting fire inspections being conducted in communities across the United States has saved lives and property. However, the literature review further indicated varying views on how successful a specific inspection program can or has been over time. Ben Coffman identified the success of code enforcement is based on the training levels of personnel (Coffman, 2013). Equally important is the attitude of personnel conducting inspections and the importance they serve (Tobia, 2013) and which codes apply to a specific business (Buckmann, 2006). Over the past few years, with the economic conditions effecting operating budgets, the use of dedicated fire inspectors or company fire inspections has become a target during budget cuts (Crawford, 2012).

Procedures

The purpose of this research project is to determine if the EFD conducting fire inspections utilizing on-duty personnel was being conducted accurately and consistently. The research methods utilized included a literature review of books, trade journals, fire codes and state regulations, local business surveys, and surveys of other fire departments.

It was the intent to review relevant and recent data to provide information related to nonresidential inspections being conducted in the City.

The first step was a review of literature focused on inspection programs and the reviews of their importance to this research project. This included the state statute related to mandatory fire inspections in local jurisdictions and the views in various periodicals, books, and by authors related to conducting fire inspections.

The second step was to review records maintained in FireHouse®, the EFD software program utilized to monitor all records. The inspections reviewed included data retrieved from the onset of the program from January 2005 to December 2012 and identified a comparison of the number of inspections conducted and the number of violations identified annually. The query further identified the type of occupancy inspections conducted and violations found in each type of occupancy.

The third step was a query reviewing training specifically directed at conducting fire inspections during the same period. The search was for the period of January 2005 to December 2012 and focused on training conducted by the full-time on-duty personnel only.

The fourth step was to redesign a customer satisfaction survey utilized by EFD randomly mailed to residents and business owners. The revised survey focused specifically on issues related to fire inspections conducted. The businesses selected as part of the survey were

randomly selected from inspections for the period of June 2012 to April 2013. The surveys were mailed in May 2013 directly to business owners with a return envelope included in the survey. The purpose was to determine if the business owners knew of the fire inspection requirement by law and to rate the overall knowledge and performance of personnel conducting the inspection. The survey allowed for the business owner to rate their overall opinion of the fire inspection and allowed for general comments (Appendix C).

The fifth step was a survey conducted with fire departments across Illinois. The survey was restricted in order to evaluate the results from departments operating under the same statutory provision and economic and budgetary conditions. The survey asked a series of nine questions related to training, type of inspection program, businesses' perspective, and advantages and/or disadvantages to the type of inspection program utilized. The survey was sent out utilizing the Illinois Fire Chiefs Association e-mail system in May 2013 (Appendix D).

Definition of Terms

Company Inspections – Fire inspections that are conducted by full-time on duty personnel that are assigned to a specific station for emergency response. While conducting fire inspections, personnel are available to respond to calls for service, both emergency and non-emergency.

Company Officer – A firefighter holding the rank of Lieutenant or Captain assigned to a specific fire station who has oversight over subordinates, firefighters, assigned to the same station and who may all respond on a specific piece of apparatus.

Fire Prevention Officer – A company officer who has been assigned the administrative function of the fire prevention bureau. The officer will be state certified as a Fire Prevention

Officer and has received additional training and course work with regards to NFPA standards and codes.

Results

The results to the research questions for this project are a combination of literature review, data from EFD records, and surveys conducted with fire departments and business owners.

In the surveys sent to City businesses, the first question asked was to gain an understanding of business owners: Are you aware that fire inspections are required by state law?

Results: 88% responded yes, 12% responded no.

A review of records in FireHouse® identified the number of fire inspections conducted annually and the number of violations cited. This provided background in determining if the EFD is historically maintaining an average number of inspections and if indicators are the number of violations since instituting the fire inspections is in fact reducing. The results are found in Table 1 below.

Table 1

Fire Inspections Conducted and Violations Cited

Year	Number of Inspections	Violations Cited
2005	1,313	3,134
2006	1,850	3,931
2007	1,758	2,943
2008	1,651	2,685
2009	1,301	1,800
2010	1,348	1,627

2011	1,369	2,085
2012	1,250	1,630

Note. The number of inspections includes both the primary and follow-up inspections

In evaluating the research to question one, What level of training have firefighters received in regards to fire inspections, a review of internal data retrieved from training records for the 15 full-time firefighters conducting fire inspections revealed the following as illustrated in Table 2 below.

Table 2

Fire Inspection Training

Year	2005	2006	2007	2008	2009	2010	2011	2012
Classes	15	4	1	0	0	30	32	19
Hours	153	173	22	0	0	83	88	50

All training conducted was internal and did not include any specific formal training through NFPA or a general 40-hour course. The training conducted was done by the individual companies while on duty and focused on the inspection form, and generalities on fire codes. A question in the survey sent to business owners was also utilized to determine how business owners felt the firefighters overall knowledge in conducting fire inspections was. The responses were 76% excellent, 21% good, with 3% poor.

In reviewing results of respondents regarding training in other fire departments across the state, the results are illustrated in Table 3.

Table 3

Fire Inspection Training by External Departments

Type of Training	Percentage
In-house training	58.33%
Fire Prevention Principals	33.33%
NFPA Life Safety Code specific training	5.56%
Fire Prevention Officer training	11.11%
Other	8.33%
No formal training	22.22%

In reviewing research in regards to question two, a survey sent to business owners included this question allowing for the customer to evaluate how they viewed the firefighters' attitudes. The EFD has historically received positive comments on the professionalism displayed by all department personnel; however, the survey related to this research was designed to specifically address the attitudes during fire inspections. This was accomplished in two separate questions. The first asked about the professional appearance of our personnel: 76% said excellent, 21% said good, and 3% said average. The second question asked the personal responsibility taken by our personnel to answer their questions: 73% responded excellent, 24% responded good and 3% responded average. A review of the firefighters from other departments on their attitudes was also part of the external survey.

A question in the survey sent to external fire departments asked the attitude of firefighters conducting fire inspections: 25% positive, 69.44% neutral, 5.56% negative.

Question three related to inspections being conducted following the fire department standard operating procedure (Appendix A) which was created in 2005 at the beginning of the program. The results were based on a question within the survey sent to business owners on the accuracy and benefit of the fire inspection: 67% responded excellent, 30% responded good, and 3% responded poor.

A similar question was included in the survey sent to external fire departments asking if fire inspections being conducted follow a department standard: 97.22% responded yes and 2.78% responded no.

The fourth question was how businesses view fire inspections being conducted overall: 67% responded excellent, 30% responded good, and 3% responded very poor. The external fire department survey asked the same question: 52.78% responded positive and 47.22% responded with reservations.

Additional research questions were asked in the external survey sent to fire departments across the state specific to dedicated fire inspectors versus utilizing on-duty companies.

Question one: Does your fire department conduct fire inspections utilizing on-duty companies? Results: 50 % responded yes, 50% responded no.

Question three: Does the company who conducted the initial fire inspection conduct the follow up inspection? Results: 36.11 % responded yes, 13.89% responded no, 50% responded does not apply.

Question five: Does your department have specific individuals assigned to conduct fire inspections? Results: 80.56% responded yes, 19.44% responded no.

Question six: If inspections are conducted by a specific individual, who conducts the follow up inspections? Results: 75% responded the same individual who conducted the initial

inspection, 13.89% responded another dedicated inspector, 2.78% responded the on-duty company, and 13.89% responded did not apply.

Question nine: What, if any, are the advantages and or disadvantage to a dedicated fire inspector versus use of on-duty companies conducting fire inspections? Responses to this question favored both the use of dedicated inspectors and use of on-duty companies. The majority however stated a dedicated individual conducting fire inspections allows for more consistency which is an issue that has been addressed by businesses in the City. However, this can increase overall costs in operating budgets which are consistently coming under review to reduce operating costs. The on-duty inspection model is a cost effective way of conducting inspections and allows for all firefighters to become familiar with all commercial buildings. The downside is most firefighters do not see the value of fire inspections, may not address the same issue in the same manner as their counterpart, and may not prioritize them in their daily work assignments. The advantage to the dedicated fire inspector model is experience, consistency, less confusion or miscommunications versus multiple firefighters over time. Some departments have utilized a variety of different programs to accomplish fire inspections to include negotiated 7G agreements for full-time personnel to work in the fire prevention bureau on their off days. Utilizing dedicated fire prevention officers provides a more highly trained inspector. Detailed responses to survey question nine are listed in the appendix (Appendix E).

Discussion

The EFD instituted a fire inspection program to not only meet statutory requirements but to also provide for a safe environment in all public buildings, both to the residents and visitors. Although a small portion of the City had some form of fire inspections being conducted prior to 2005, there was no follow-up or code enforcement that met the existing state fire code. Many of

the businesses had never been subjected to a fire code inspection and therefore were never directed on what was required and further were never educated in any form on such a program. The survey responses reflected business owners understood the statutory requirement regarding fire inspections. However, citations and compliance under threat often result in business owners coming in to compliance with a grudge, which the City has experienced on a small scale with several business owners. The EFD, like many departments across the United States who wish to change conditions within public buildings, need to educate property owners why the fire code requires certain factors (Grant & Hoover, 1994).

The research project solidified fire inspection programs across the United States as a primary reason fires in nonresidential buildings between 2003 and 2007 were down (TriData, 2008). Fire inspections currently being conducted by EFD personnel initially had identified a large number of fire code violations however, over time the number of violations being identified has decreased by fifty-two percent. The article in Fire Engineering identified fire prevention inspections as the backbone of fire prevention (Coffman, 2013). The history of the EFD inspection program has proven to be successful but continues to come under scrutiny to the consistency of on-duty personnel conducting such inspections. During the course of any given year, there are 15 firefighters, with some difference of opinion, conducting fire inspections.

Fire inspections can become very confrontational between the firefighters making the inspections and the property or businesses owner. It is imperative the firefighter conducting the fire code inspection is well-versed on what may be required and be in a position to explain why a specific code violation is being identified and what corrective action is needed. The article in Fire Engineering further identified the need to have personnel trained to the level of enforcement with dedicated fire inspectors, or a combination of inspection models (Coffman, 2013). EFD is

no exception to the idea of dedicated fire inspectors working a 40-hour work week: however, the City has experienced budget reductions in all departments. As a result, the use of on-duty personnel conducting fire inspections is the only current option available to EFD.

The shortfall identified in the research was the lack of training, both informal and formal, afforded to personnel conducting inspections. Chief Buckmann believed firefighters should have the knowledge to explain a particular violation and why it was important rather than just citing it (Buckmann, 2006). The review of department training records clearly indicated the amount of time dedicated to conducting fire inspections was not supported in the number of hours dedicated to training personnel to conduct the inspections (Table 2). I further agree with Mr. Crawford that with no training, firefighters will legitimately complain about doing anything without the skills or tools to do it well (Crawford, 2012).

Across the state of Illinois, it was not expected to find the numbers of departments responding to the research survey that are now utilizing on-duty companies, 50%, to conduct fire inspections. Equally, the lack of any training, 22%, to properly conduct inspections was equally disappointing. While the fire service prides itself on providing high levels of service, in conducting fire inspections we fail to support that statement. Although firefighters are capable of being formally educated in a specific field, such as fire code enforcement, the question is if they should they be expected to maintain the skill level needed or required. In today's environment, Mr. Gray believes fire code requirements of occupancies and types require thorough knowledge of changes (Gray, 2011). However, financial conditions may hinder or prevent such dedication by the EFD personnel.

The research survey results from business leaders indicated EFD personnel have a positive attitude in conducting fire code inspections and by many accounts are able to identify

and explain a code violation. Indications from the survey are we do have a buy-in by EFD personnel to embrace the fire code inspections and that it is an important part of their job as stated by Lacey & Valentine (Lacey & Valentine, 2009).

Recommendations

Based on the findings that resulted from this research project, the following recommendations are made for the EFD.

A formal in-house training program should be established and conducted for all EFD personnel involved in fire code inspections. Such training should follow training standards as established by the Office of the State Fire Marshal specific to fire code inspections. On-going training should be incorporated into the on-duty training schedule in order for personnel to remain current on standards and/or changes in the code. This training can be conducted while personnel are on shift avoiding overtime costs.

One person from each of the three shifts should receive more formal training specific to NFPA Life Safety Code 101. This type of training is generally a one-week 40-hour course with the focus specific to the Life Safety Code. By having one individual on each shift, personnel on the specific shift would be in a better position to address specific code issues. This would improve the relationship with business owners that currently have to wait for up to a minimum of three business days to obtain an answer on a unique code violation. Currently there is only one Officer, the Fire Prevention Officer, who has this level of training.

The EFD should attempt to meet on a more frequent basis with business owners through local organizations. This would allow for open lines of communication in a business environment unrelated to a fire code inspection. Informational flyers could be handed out to

business owners on frequent code violations found in the City and ways they could easily be corrected.

The City needs to update the website to identify a quick reference check list for business owners to go to that would identify what to expect from a fire code inspection. The website could also list some common issues fire inspections include such as exit lights, fire extinguishers, alarm and sprinkler tests, etc.

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Appendix A

SOG Company Fire Inspections



SECTION :	Fire Prevention & Public Education	Number :	1001
SUBJECT :	Company Inspections	Page #	1 of 3
Date of Issue :	January 2005	Revision Date:	December 2005

SCOPE

This standard establishes guidelines for all department personnel to conduct or assist in conducting fire prevention inspections within the response area of the fire department.

GENERAL

It is the goal of the fire department to prevent fires and to save lives and property. In pursuit of this goal, it shall be department policy to inspect all non-residential properties at least once a year.

A secondary goal of the inspection process is to allow all personnel to become familiar with the buildings within our borders or those areas we are first due. The information obtained during an inspection will be of assistance in preparation of a tactical survey for the occupancy (pre-plans).

The Fire Prevention Officer shall manage the company inspection program, maintaining current, up-to-date master inspection lists to include all buildings, businesses, and occupancies except one-family or duplex dwellings. The inspections will be subdivided between each of the shifts, providing the name and address of the building, occupancy, or business. The Fire Prevention Officer will maintain a file for each building, occupancy, and/or business. A copy of each inspection report will be placed in the file each time the occupancy is inspected.

A monthly report will be submitted to the Fire Chief each month by the Fire Prevention Officer listing the number of inspections conducted during the prior month broken out per shift. The report shall indicate the number of inspections assigned to each shift and the number of inspections completed by each shift. **Any shift that does not complete the assigned inspections in any given month, the respective Shift Commander shall submit a memo to the Fire Chief with an explanation. Inspections not completed in any month must be completed no later than the following month.**

The Fire Prevention Officer shall meet with each shift periodically to review problems and to answer questions that may arise.



SECTION : Fire Prevention &
Public Education

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CONDUCTING INSPECTIONS

1. Shift Commanders shall be held responsible for inspecting all of the buildings and occupancies assigned to their shift in a given month by the Fire Prevention Officer.
2. Whenever any non-corrected violations are found during an initial inspection, it will be necessary to conduct a reinspection.
3. The success of the Company Inspection program depends on the goodwill and voluntary compliance of the owner or manager of each business. Our politeness and professionalism will go a long way toward the inspection program success.
4. On entering the occupancy, personnel shall ask to speak to the manager or supervisor. Personnel shall introduce and identify themselves to the responsible party and explain the purpose of the visit. Personnel should ask the responsible party to accompany the individual(s) conducting the inspection. This will allow personnel to explain the principles of fire prevention as well as point out and correct hazards.
5. For smaller occupancies, it may be desirable to divide the company into two or more inspection teams to minimize the distraction to customers or workers. This will also allow more inspections to be done in less time in multiple occupancies.
6. The exterior of the building or occupancy should also be surveyed to determine the location of doors, windows, utility meters and shutoffs, construction features, etc.
7. Many hazards can be corrected immediately on discovery. Note minor violations on the Inspection Form. No reinspection will be required if all of the violations can be corrected during the inspection.
8. All areas of the building or occupancy shall be inspected in an orderly and systematic manner.
9. The results of each inspection or reinspection shall be accurately recorded on the Inspection Form.
10. If a problem arises during an inspection that cannot be solved by personnel, the Fire Prevention Officer should do a follow up in a timely manner.



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-
11. Some violations are serious enough to require immediate attention. Such violations can include locked/chained or obstructed exits, or any violation that constitutes an immediate threat to health or safety
 12. After completion of the inspection, the owner or other responsible party should sign the Inspection Report Form. Give the white copy to the responsible party and provide an explanation concerning any hazards noted and the manner in which they should be corrected. If a reinspection is necessary, explain the reinspection procedure in detail to minimize any misunderstanding.
 13. If no hazards are found, write on the Inspection Report Form stating that the premises were found to be reasonably fire safe at the time of the inspection.
 14. Upon leaving the premises, thank the responsible party for his/her assistance.

REINSPECTIONS

1. When violations are found during a routine inspection, it will be necessary to conduct a reinspection after the owner or manager has had a reasonable period of time to correct the violations.
2. The first reinspection will normally be scheduled **30 days** after the original inspection. A second (or subsequent) reinspection, if necessary, will normally be scheduled at **15 day** intervals after the first reinspection. If the violations are not being properly addressed within a reasonable span of time, the Fire Prevention Officer shall take the appropriate action as warranted.
3. Reinspections will be conducted in a similar manner as a routine inspection. Only those items found to be deficient during the original routine inspection should be checked.
4. Serious violations discovered during a reinspection that were not discovered or that did not exist at the time of the routine inspection should be recorded, and the occupant shall be asked to correct those deficiencies as well.

Appendix B

EFD Fire Inspection Form



Fire Chief Joseph C. Holomy
505 W. Fayette Ave. Effingham, IL 62401
Dept.: 217-342-2555 Fax: 217-342-5496

FILE # _____

CITY OF EFFINGHAM FIRE DEPARTMENT
FIRE PREVENTION INSPECTION FORM

BUSINESS _____ DATE _____ TIME _____

ADDRESS: _____ PHONE _____

INSPECTION TYPE _____ TYPE OF OCCUPANCY _____

CODES ARE BASED ON NFPA 101 LIFE SAFETY CODES, 2000 EDITION – PER CITY ORDINANCE 100-2004

EXIT ACCESS

- ___ 1. EXIT SIGNS REQUIRED (NON ILLUMINATED) 7.10.1.1
- ___ 2. EXIT SIGNS REQUIRED (ILLUMINATED) 7.10.5.1*
- ___ 3. EXIT SIGNS NOT ILLUMINATED 7.10.5.2*
- ___ 4. FIRE DOORS ARE BLOCKED OPEN 7.2.1.8.1*
- ___ 5. DOOR CLOSERS REQUIRED 7.2.1.8

FIRE EXTINGUISHERS

- ___ 6. OBSTRUCTED FIRE DEPT. CONNECTION 9.7.1.1*
- ___ 7. EXTINGUISHER MAINTENANCE REQUIRED 9.7.4.1*
- ___ 8. EXTINGUISHERS REQUIRED 9.7.4.1*
- ___ 9. EXTINGUISHER SHALL BE MOUNTED 9.7.4.1*
- ___ 10. SPRINKLER VALVES SHALL BE SECURED OPEN 9.7.1.1*
- ___ 11. ANNUAL SPRINKLER SYSTEM TEST REQUIRED 9.7.5

FIRE ALARM SYSTEM LOCAL CENTRAL N/A

- ___ 12. DETECTORS NEED REPAIRED 9.7.5
- ___ 13. ANNUAL FIRE ALARM SYSTEM TEST REQUIRED 9.6.1.7*
- ___ 14. ALARM ZONE IDENTIFICATION REQUIRED 9.6.5.4*

ELECTRICAL SYSTEM

- ___ 15. EXTENSION CORDS IN USE 9.1.2
- ___ 16. CIRCUITS OVER LOADED 9.1.2
- ___ 17. ELECTRICAL PANEL NOT LABELED 9.1.2
- ___ 18. EMERGENCY LIGHTING REQUIRED 7.9.2.2*
- ___ 19. EMERGENCY LIGHTING NEEDS REPAIRED 7.9.2.5
- ___ 20. MISC. ELECTRICAL PROBLEMS 9.1.2

HOUSEKEEPING

- ___ 21. GENERAL CLEANUP REQUIRED 4.6.1.2
- ___ 22. PRESSURIZED CYLINDERS ARE NOT SECURED 8.4.3.1
- ___ 23. IMPROPER STORAGE OF FLAMMABLE LIQUIDS 8.4.3.1
- ___ 24. STORAGE IN FURNACE / UTILITY ROOM 4.6.1
- ___ 25. OBSTRUCTED MEANS OF EGRESS 4.5.3.2

STRUCTURAL CONDITION

- ___ 26. GENERAL MAINTENANCE REQUIRED 4.6.10
- ___ 27. ADDRESS NUMBERS ARE NEEDED C.O. 66-2001
- ___ 28. CEILING PANELS DAMAGED / MISSING 8.2.3.1.1
- ___ 29. HAZARDOUS AREA PROTECTION REQUIRED 8.4.1.1*

DATE OF SPRINKLER TEST _____ DATE OF FIRE ALARM TEST _____

FOLLOW UP REQUIRED: YES NO

COMMENTS _____

Appendix C

Customer Survey Building Inspections

**Effingham Fire Department**
ILLINOIS**Fire Chief Joseph C. Holomy**505 W. Fayette Ave. • Effingham, IL 62401-0648
Dept.: 217.342.2555 • Fax: 217.342.5496 • www.effinghamil.com

Re: Customer Survey – Building Inspection

Dear _____,

Recently the Effingham Fire Department responded to your business/home due to an inspection. In order to ensure that we are providing the best possible service to the public that we serve, we are asking for your opinion on the quality of our response/visit.

Enclosed you will find a short evaluation survey. Please take a moment to answer the following questions and return the survey to me in the self-addressed stamped envelope. If you wish to remain anonymous you may do so, if not, contact request information has been provided at the end of the survey. Any additional comments, in regards to your recent service or about the Fire Department in general, are encouraged and welcomed.

Our mission as a Fire Department is to provide a quality service to the citizens that we serve and to do so in a timely manner. It is our belief that it is necessary to understand the expectations of our customers in order to continually improve this service where needed. Your input in this process is appreciated and will assist the Fire Department in identifying the matters that you feel are most important.

If you ever have a concern about the quality of care or service that you received, please do not hesitate to call me at (217) 342-5334. Thank you in advance for your assistance in this survey and I look forward to your comments.

Sincerely,

Joseph C. Holomy
ChiefJCH/jmb
Enclosure

Effingham Fire Department Survey

The Effingham Fire Department is continually exploring ways to better serve the community. In order to evaluate your recent fire inspection, we need your input.

How would you rate the following:

1. Are you aware that fire inspections are required by state law?

YES _____ NO _____

2. The accuracy and benefit of the fire inspection?

Excellent Good Average Poor Very Poor

3. The performance of our people and their overall knowledge when conducting the inspection?

Excellent Good Average Poor Very Poor

4. The professional appearance of our people?

Excellent Good Average Poor Very Poor

5. The personal responsibility taken by our people to answer your questions?

Excellent Good Average Poor Very Poor

6. Your overall opinion of the fire inspection?

Excellent Good Average Poor Very Poor

7. General comments regarding the fire inspection.

Please complete the following (Optional):

Name: _____

Address: _____

Phone: _____

Date: _____

Appendix D

External Survey Company Fire Inspections

[SURVEY PREVIEW MODE] Company Fire Inspections Survey

Page 1 of 3

Company Fire Inspections

***1. Does your fire department conduct fire inspections utilizing on-duty companies?**

- ☐ Yes
☐ No

***2. What level of training have your on-duty company firefighters/officers received in conducting fire inspections?**

- ☐ In-house training
☐ Fire Prevention Principals
☐ NFPA Life Safety Code specific training
☐ Fire Prevention Officer training
☐ Other
☐ No formal training

***3. Does the company who conducted the initial fire inspection conduct the follow up inspection?**

- ☐ Yes
☐ No
☐ Does not apply

***4. What is the attitude of the on-duty firefighters/officers conducting fire inspections?**

- ☐ Positive
☐ Neutral
☐ Negative

***5. Does your department have specific individuals assigned to conduct fire inspections?**

- ☐ Yes
☐ No

[SURVEY PREVIEW MODE] Company Fire Inspections Survey

Page 2 of 3

***6. If inspections are conducted by a specific individual, who conducts the follow-up inspections?**

- ☐ The same individual who conducted the initial inspection
- ☐ Another dedicated inspector
- ☐ A on-duty company
- ☐ Does not apply

***7. Are all fire inspections being conducted following a fire department standard?**

- ☐ Yes
- ☐ No

***8. How do businesses within your jurisdiction view fire inspections being conducted overall?**

- ☐ Positive
- ☐ With reservations
- ☐ Negative

***9. What, if any, are the advantages and or disadvantages to a dedicated fire inspector versus use of on-duty companies conducting fire inspections?**

Powered by **SurveyMonkey**
Check out our [sample surveys](#) and create your own now!

Appendix E

Detailed Responses To External Survey Question Nine

Note. Responses are direct from survey authors and are unedited

Company in service inspections give members the opportunity to get inside the businesses and preplan, whether formally or informally. It's a great teaching tool for the companies. This also makes better use of the full time inspector's time. He can survey results of the in-service inspections and set his priorities for follow up.

We utilize the companies to handle the house keeping inspections. We have two members assigned to the Bureau on their off days to do follow up or high hazard inspections.

Having a dedicated fire inspector allows for consistency for all facets, initial, follow up, and enforcement.

More specialized expertise.

Due to the call volume, we are not able to dedicate on-duty firefighters to do this work and we do have a full-time Fire Marshal and Fire Inspector who do conduct all of our inspections and plan reviews which for us works out very well.

A dedicated inspector has a job and mission. Engine company inspectors (part of the engine company crew) have a wide range of other duties to complete and based on the engine company personnel's view of inspections, other duties are accomplished first with inspections taking a back seat. There is peer pressure to get the engine company to do all their other duties and if there is time left then complete inspections.

Fire investigator does not have to leave during a call.

Duty companies keep informed of businesses and changes, as well as having a rapport with the general public, and being seen out in the public.

Total number of calls versus number of fire personnel on-duty would not allow for a fire prevention or public education program.

Dedicated fire inspectors possess a greater level of experience and education which adds to the credibility of the fire inspection program. Dedicated inspectors should be trained to conduct a more thorough inspection maintaining a consistently high standard for fire and life safety. The use of on-duty companies will allow you to visit and inspect a larger number of buildings and occupancies. But often it is more beneficial to conduct less more thorough inspections versus a greater number of inspections lacking completeness.

An assigned inspector can do more than a basic in service inspection.

On-duty is more dependable.

We have a dedicated fire marshal that conducts our inspections. The main advantage is that he is an expert rather than a generalist. The main disadvantage is that our company officers rely on him too much and do not gain the knowledge as fast as they should for company level inspections.

A dedicated officer ensures consistency more so than company officers. While well intended, different individuals cannot ensure absolute consistency across the board.

Calls and training do not conflict with the time needed for conducting inspections.

Advantages of company inspections; more eyes on building layout and familiarization, and more inspections completed. Disadvantages of company inspections; quality of inspections is less than dedicated inspector. Businesses enjoy the consistency of the same inspector. Don't have the time during the day for company inspections. Company inspections require more rescheduling due to missed appointments because of calls.

Using a single person should mean a consistent review.

Advantage is continuity, specialized training. Disadvantages are doesn't help fire companies with district building familiarization. Approves firefighters believing they have little responsibility for fire prevention in their community.

The largest advantages that I see are the level of education and understanding of the fire codes of the dedicated inspector versus the company officer. Also, the inspections delayed or incomplete due to emergency responses and the follow up is consistent. Finally, and very importantly, the attitude of the individuals and interaction with business owners of the dedicated inspectors is professional and courteous at all times. We have found our inspectors have a great rapport with business owners and because of this, compliance to code violations are corrected quicker.

We have never used on-duty companies for inspections. We prefer to train a few individuals who want to do the inspections and want to do them right. We have five of our full time personnel assigned to work the FPB at a negotiated 7G rate. They are supervised by the Fire Marshal who is a full time supervisor of the FPB with FPO I & II and plan review credentials.

A dedicated individual doing it versus on-duty companies is that one person doing them all will be consistent. If you have multiple individuals doing it they will all be done a little differently.

Dedicated allows for more consistency.

We use both, depending on the occupancy.

Gets expensive since it was added to the collective bargaining agreement.

A dedicated fire inspector can have more consistency in conducting inspections and have the potential to have more education and experience in code enforcement. The on-duty

inspections are usually basic life safety inspections due to the varied levels of experience of the company crews. The on-duty inspections are a cost effective way of conducting inspections as a dedicated fire inspector may increase budget costs.

They are available for follow up. This is especially true for all the rooming houses and fraternities and sororities we inspect.

Saves money, gets all firefighters in all commercial buildings for familiarity, find code violations.

Dedicated companies serve a limited purpose in which it gets them out and familiar with businesses. However, sometimes those companies can't get back to do re-inspections in a timely manner because of calls and scheduled drills. I believe in a dedicated inspector because he is the go to guy in the event of a question and follow-ups are easier. Inspections tend to fall through the cracks when you don't have a dedicated inspector to a fire prevention program. We are going through that now because the city wants to cut fire prevention from the budget as the economy has gone bad and they just don't look at it from a legal standpoint should something arise.

You get what you pay for. Most firefighters do not see the value of fire inspectors and do not prioritize them in their daily work assignment.

Our Assistant Chief is in charge of the program. If after two inspections it is not corrected then he follows up. This also keeps the firefighters in the buildings so that they are familiar with them.

Better knowledge of businesses.

I feel that if on duty companies did the inspections, it would give them a preplan in their mind for that 'what if' situation. Negative is would the inspection be done accurately.

I have five firefighters that work in fire prevention on their days off. Because of our industrial status, this is the only way the inspections and follow-up inspections can be accomplished. The fire inspectors also regularly update the shifts regarding any new construction and/or businesses in town and schedule any “walk-throughs” that are requested by the shift personnel.

Experience, consistency, less confusion or miscommunications due to multiple people involved.

Advantages include companies having better familiarity with the building in their first response area and ability to get into all buildings. We cannot afford enough inspectors to inspect all buildings in a 12-month cycle. The companies can do pre-fire planning as well.

Disadvantages include apathy towards the inspection duties, interruptions, and not using the most skilled and knowledgeable person to conduct inspections.

Using a dedicated fire prevention officer provides a higher trained inspector and consistency.