

**Strategic Management Change on Code Enforcement for the Bazetta Fire  
Department**

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A research project submitted to the Ohio Fire Executive Program

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## CERTIFICATION STATEMENT

I hereby certify that the following statements are true:

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

2. I have affirmed the use of proper spelling and grammar in this document by using the spell and grammar check functions of a word processing software program and correcting the errors as suggested by the program.

Signed: \_\_\_\_\_

Printed Name: \_\_\_\_\_

## **ABSTRACT**

Bazetta Township Fire Department (BTFD) would like to find effective ways of completing annual fire code compliance inspections throughout its jurisdiction. The problem was that BTFD had insufficient resources to conduct fire code compliance inspections in existing buildings.

The purpose of this research project was to identify and describe the fire code compliance requirements for Bazetta Township, Ohio, what other fire departments in Ohio are doing to address the need to complete an acceptable number of fire safety inspections, and factors that might affect the ability of BTFD to meet its annual fire safety inspection goals. Descriptive research was used to answer the following questions: What are the fire safety inspection requirements for commercial/business properties in Bazetta Township, Trumbull County, Ohio? What are other fire departments in Ohio, who are similar in size to Bazetta Fire Department, doing to address the need to complete an acceptable number of commercial fire safety inspections each year? How many fire or safety issues have developed since the reduction in inspections at Bazetta Township Fire Department?

A review of literature, the internet, and a survey were used to provide the answers to the research questions. The results showed that BTFD needs to make changes in the current fire code compliance program to ensure that annual commercial fire code compliance is completed. The outcome of this research paper showed two recommendations and a recommendation for further research for a Standard Operating Guideline.

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## INTRODUCTION

### **Statement of the Problem**

Buckman (2006) stated that the ability of a fire department to conduct effective fire code compliance inspections is a hallmark of providing the best possible fire prevention to a community. Prior to 2009, the Bazetta Township Fire Department (BTFD) conducted a systematic fire code compliance inspection program. Which achieved ninety-five percent of annual fire code compliance inspections for all businesses located within Bazetta Township (Firehouse, 2011). In 2009, the BTFD experienced a 33% reduction in staff as a result of budgetary issues. Since 2009, collected inspection data revealed that BTFD has only been able to complete 5% or less of annual fire code compliance inspections (Firehouse, 2011). The reduction in manpower, as well as, the lack of policy or a standard operating guideline contributed to the problem for completing annual fire code compliance inspections comparable to the 2009 levels for BTFD. The departments' focus shifted from both fire code compliance and emergency services to only providing emergency response. BTFD's code compliance program was down sized to only focus on new construction which resulted in a lower number of code compliance inspections of existing buildings.

The BTFD has many responsibilities of a modern fire department; the enforcement of fire code compliance is often overlooked when compared to every day aspects of emergency response. The efficient use of staffing, budget, and alternative methods for fire code compliance are necessary facets to make a code enforcement program effective.

### **Purpose of the Study**

The purpose of this descriptive research paper was to gather information to support decisions and plans to address the shortfall in manpower needed to perform the number of fire code compliance inspections previously completed in existing structures.

### **Research Questions**

The following questions will be answered by this descriptive research:

1. What are the fire safety inspection requirements for commercial/business properties in Bazetta Township, Trumbull County, Ohio?
2. What are other fire departments in Ohio doing to address the need to complete an acceptable number of commercial fire safety inspections each year?
3. How many fire or safety issues have developed since the reduction in inspections at Bazetta Township Fire Department?

## **BACKGROUND AND SIGNIFICANCE**

Bazetta Township Fire Department (BTFD) began as an all volunteer agency in 1948 and today provides an all-hazards emergency services program to Bazetta Township located in Trumbull County, Ohio. The BTFD mission statement states the department's purpose is the prevention of fires through fire safety education, code enforcement, preplanning, and fire investigation. The mission encompasses providing emergency medical services, fire suppression, and hazardous materials spill mitigation to the residents and guest of Bazetta Township, as well as, providing the highest level of professional service related to the level of resources allocated to the organization.

In 2010 the population of Bazetta Township was 5,874 (United States Census Bureau, 2010). BTFD is ISO Class 4/9 and protects 21.5 square miles; located fifteen minutes north of Youngstown, Ohio and fifteen minutes west of the Pennsylvania border. The second largest manmade lake in Ohio (Mosquito Lake) divides the community in half (US Army Corps of Engineers, 2012).

The department operates from two (2) fire stations. There is one engine and one ambulance at one station and one rescue/engine, one Quint (ladder truck), and one ambulance at the other. The department used to staff four personnel at one station and two personnel at the other station on every shift. The department has lost four career firefighter positions and numerous part-time positions since February 2009. The current staffing level consists of three personnel on a 24 hour shift. BTFD operates only one station at a time during a six month period. The reduction in work force has left BTFD scrambling to cover fire and EMS calls on a daily basis as 75% of the call volume is from 0800 hours to 2000 hours. BTFD has seen an increase of 200% in mutual aid or automatic aid received since 2007. The amount of mutual aid or automatic

aid given from BTFD has declined to only 75% since 2007 (Firehouse, 2011). The result of the country's economic recession has hit the department hard creating a stoppage on code enforcement, education, and community prevention programs. The lack of code enforcement presents a particular issue for BTFD. A diminishing or ineffective fire code compliance program can increase the severity and number of life safety issues and fire hazards. Fire hazards threaten the safety not only of occupants but also of firefighters as "Many existing buildings contain certain latent risks due to deterioration, owner-initiated changes that were not done in accordance with the permitting process, deferred maintenance, or basic details of construction that would not be found in new construction" (Cote, 2008, p. 32).



## LITERATURE REVIEW

“Fire Prevention activities actually pre-date the creation of organized fire department in the United States. Fire was a constant threat to early European settlements in America. Major fires struck in Jamestown, Virginia in 1608 and Plymouth, Massachusetts in 1623. Fire regulation in the early days primarily affected the construction, height, and maintenance of chimneys. The carrying of hot coals from fireplace to fireplace was also common source of large blazes. Wooden building construction aggravated the situation. Boston banned smoking paraphernalia in 1638. Ten years later Peter Stuyvesant forbade the use of wood and plaster chimneys in New Amsterdam (New York City).” (Barr & Eversole, 2003, pp. 1038-1039).

Carter & Rausch (2008) wrote that the any major goal of successful code or standard enforcement program is to provide a reasonable degree of safety to life and property from fire; that codes and standards provide only minimum requirement for safety of life and property conservation. Diamantes (2003) held that without an effective code enforcement program the public receives little benefit and that code enforcement is the backbone of the fire prevention in a community. In some jurisdictions, fire code compliance inspections are made only by fire inspectors; in others, company officers and their crews are assigned to carry out these duties and focus on target hazards which is any structure in which there is a greater than normal potential for loss of life and property from a fire. There are three types of fire code compliance inspections: new construction inspections, maintenance inspections, and re-inspections. New construction inspections are to verify that the building or occupancy space has been built in accordance to building and fire codes specified by state and local authorities. The maintenance inspections are for ongoing compliance inspections. These inspections are needed in business communities to ensure the occupancy, fire protection systems, and hazards protections are intact.

The third inspection classification is the re-inspection or follow-up inspection. Generally, this is set as a predetermined date and time and the purpose is to verify that property owner, business manager, or occupant has corrected any code compliance deficiencies (Diamantes, 2003).

Fire Departments must be able to juggle components of the fire code compliance with their other duties and responsibilities. Jennings and Thiel (2012) suggested that comprehensive prevention was traditionally limited to code enforcement and public education activities with an emphasis placed on code enforcement. The term of comprehensive prevention had evolved to mean not only the prevention of loss from fire but also loss from a variety of emergencies. Enforcement is the mechanism used to obtain compliance with codes and laws during the construction process and after buildings are occupied. Enforcement after construction means regulating people's behavior. Goodson and Murnane (2008) re-enforces the idea that fire inspections are made by fire service personnel to ensure fire code compliance with applicable life safety code requirements.

Ebsen (2006) explains that self inspections have become increasingly popular over the past two decades. A self inspection program is attractive because it reduces the workload of fire department personnel and places additional responsibility for safety on the businesses. Hall (2006) found in his research that the primary reason to implement a self-inspection program was due to insufficient resources needed by the fire service to complete code enforcement inspections in a timely manner. Kemp (2002) reported that much of the literature points to advantages of and the success of self- inspection programs. Hall (2006) showed that on closer examination of self inspection programs they are not without some disadvantages and pit falls. The primary pit fall with self inspections is whether violations will be properly identified and corrected by the

business owner. Examples of disadvantages are that office staff must prepare forms, instruction sheets, and inspection packets all of which is labor intensive.

Fire agencies have to find ways to fund fire code compliance inspections. Jennings and Thiel (2012) reported that comprehensive prevention efforts are challenged by a number of factors; the biggest factor being a shortage of resources. The best course is to design a program that provides a cost-effective way to deliver the services that logically could be the responsibility of a multipurpose safety oriented agency. Ebsen (2006) suggested another means of increasing efficiency and saving costs is by consolidating the inspections conducted by multiple departments within a municipality. If the program is devised so that it can be implemented incrementally, one part at a time, it allows for a period of evaluation and adjustment to ensure success.

Stokes, Holland, and Ward (2010) reported that a fire code is enforced for the majority of the United States; however, it is generally the minimum required legal standard in all jurisdictions within that state. The state fire marshal usually delegates the authority to enforce fire codes to local fire officials. The fire department's authority and responsibilities for conducting code compliance inspections are set in the fire code, usually adopted by a governing body, through the passing of ordinances and/or resolutions. The responsibility for code enforcement is usually assigned to the fire chief or fire marshal (Stokes, Holland, and Ward, 2010).

The literature review was beneficial as it provided confirmation that fire code compliance inspections is the back bone of preventing fires. Inspections are critical for community safety. Based on these two key components from the literature review, this researcher developed a survey to gather information on fire code compliance inspections from Ohio fire departments.

## **PROCEDURES**

A brief questionnaire made up of 16 questions and was formulated by reviewing other surveys from research projects on how to improve fire inspections. Questions were not designed to ask specific numerical or statistical data that would have required research on the part of the respondent. A sample questionnaire was reviewed by the seven members of Bazetta Township Fire Department and three Trumbull County Fire Chiefs that are Ohio Fire Executive Officer graduates. The sample questionnaire was redrafted and reviewed again by the same personnel. The questionnaire was emailed to 791 representatives of the Ohio Fire Chiefs Association. The email list was generated from the Ohio Fire Chiefs data base of dues paying members. This list was chosen to gain a broader intake of information regardless of whether the fire department was larger or smaller than BTFD. The 791 emails were sent to the generated Ohio Fire Chiefs list with a hyperlink of the research questions. Respondent and data information was gathered by Survey Monkey.

### **Definition of Terms**

Building Codes. “Spell out required building features for fire safety” (Management in the Fire Service 4<sup>th</sup> Edition, 2012, page 87).

Code. “A standard that contains extensive provisions covering broad subject matter or that is suitable for adoption into law independently of other codes and standards (Management in the Fire Service 4<sup>th</sup> Edition, 2012 page 87).

Code Enforcement. “Pertains to inspections, violation identification, and penalties” (Management in the Fire Service 4<sup>th</sup> Edition, 2012 page 87).

Fire Inspection. “An on-site search for code violations and other potential fire hazards” (Management in the Fire Service 4<sup>th</sup> Edition, 2012 page 87).

Fire Marshall. “An official who has responsibilities that include code enforcement, fire service training, operation of fire reporting systems, and fire investigations, as well as support of local fire departments” (Management in the Fire Service 4<sup>th</sup> Edition, 2012 page 87).

Fire Prevention Activities. “Include inspection, code enforcement, and fire education” (Management in the Fire Service 4<sup>th</sup> Edition, 2012 page 87).

Inspector. “Person who is trained and certified to perform fire and life safety inspections of all types of new construction and existing occupancies; also called Code Enforcement Officer and Fire and Life Safety Inspector” (Fire Inspection and Code Enforcement, 2009).

Regulation. “Local requirement that can be enforced” (Management in the Fire Service 4<sup>th</sup> Edition, 2012 page 87).

Standard. “A document containing mandatory provisions, using the word ‘shall’ to indicate requirements, for adoption into law” (Management in the Fire Service 4<sup>th</sup> Edition, 2012 page 87).

### **Limitations of the Study**

Limitations were found within this study. The survey was emailed to 791 representatives of the Ohio Fire Chiefs Association with only 197 surveys returned which is only 24.1% response. In review of survey question number one, the term “fire code compliance inspection” should have been defined to assist the survey taker. On question number nine, an answer choice was listed as “other, please describe” however, the technical administration of this survey did not allow any respondents to provide a written explanation. Additionally, information should have been gathered regarding alternative methods used by other departments for completing fire code compliance inspections. Follow up surveys were not conducted and the data was not compared to

provide a profile of what type and size of departments responded due to not having access to individual responses.

## RESULTS

The end result to research question one, (What are the fire safety inspection requirements for commercial/business properties?) was found through the literature reviewed. The literature review suggested that there is a need, as well as, importance for completing fire safety inspections. Both, the Ohio Revised Code and the Ohio Fire Code, leave the adoption of performing a fire inspection up to the Authority Having Jurisdiction. The only required inspections that must take place on an annual basis are in educational facilities, hotels, medical facilities, and daycare centers.

The results for research question two, (What are other fire departments in Ohio doing to address the need to complete an acceptable number of commercial fire safety inspections each year?) were compiled from answers generated by a survey. The results indicated 165 (82%) completed annual fire safety inspections. One hundred seven (60%) of the jurisdictions conducted code compliance inspections using uniformed fire/life safety code inspectors while 54 (30%) used firefighters or officers and two (1.2%) respondents were using building officials or civilians. One hundred eighteen (67%) of the respondents have one full time fire safety inspector while 67 (38%) respondents use part-time inspectors. Only 11 (6.3%) departments reported sharing a fire inspector with other agencies. Only 45 (25.6%) departments require a minimum number of annual code compliance inspections. Using a self inspection program was practiced by 14 (8%) of the respondents while 161 departments did not. Of 181 department that answered the question, 46 (25%) have budgets in the two to four million dollar range while the next largest group 37 (20.4%) departments have budgets of less than \$500,000. Almost half (48.9%) of the departments spent between \$0.00 to \$25,000 per year on code compliance while the next largest group (18.2%) spent between \$100,001 to \$200,000.

Results related to research question three, (How many fire or safety issues have developed since the reduction in inspections at Bazetta Township Fire Department?), were found through an analysis of data documented over the past three years by BTFD. The review of data showed that one commercial structure fire occurred, and the cause of the fire was ruled suspicious undetermined. BTFD data reflects no significant increase of fires or safety issues over the last three years.



## DISCUSSION

The primary mission of the fire service and BTFD is to reduce loss of life and the risk of hazards. Information gathered for the literature review indicated the best way to suppress a fire or prevent injury is to eliminate it before it occurs. Research reported by others suggested in order to suppress a fire or prevent injury, one has to conduct fire code enforcement inspections. Results of the literature review also suggested that code enforcement inspections are important in order to reduce the threat from fire and life safety hazards. The Ohio Revised Code and the Ohio Fire Code both require that certain code enforcement inspections shall be performed on an annual basis. Facilities to be inspected annually are educational facilities, hotels, medical facilities, and daycare centers. The Ohio Revised Code and the Ohio Fire Code leave it up to the Authority Having Jurisdiction to inspect additional facilities or businesses that exceed the basic listings required by the State of Ohio.

BTFD has been meeting the minimum requirement of the Ohio Revised Code and the Ohio Fire Code for annual Fire Code Compliance inspections. BTFD has eight facilities that are required to have annual fire code compliance inspections required by the State of Ohio and they are inspected on an annual basis. Informational data from the survey showed that 165 (88.2%) out of 187 respondents conducted fire code compliance inspections. The survey also revealed that 107 (60.1%) of the respondents used a Fire/Life Safety Inspector (uniformed) to conduct fire code compliance inspections; however, a smaller percentage of the respondents (30.3 %) used both Firefighters and Company Officers. BTFD cannot financially afford to employ a Fire/Life Safety Inspector (uniformed). The shared use of a Fire/Life Safety Inspector (uniformed) would be a factor to consider with other local fire departments.

The survey revealed that 31.7% of the respondents have some type of SOP/SOG, local ordinance/resolution and/or agency policy in place to guide in fire code compliance inspections. Currently BTFD does not have any written SOP/SOG, local ordinance/resolution and/or agency policy in place. Additional research on the development on SOP/SOG, local ordinance/resolution and/or agency policy may benefit BTFD due to the lack of resources for a Fire/Life Safety Inspector (uniformed). The development of these policies may increase compliancy within BTFD to complete fire code compliance inspections above and beyond the Ohio Revised Code and the Ohio Fire Code guidelines.

This author is able to report, as of September 2012, the BTFD received a SAFER grant and hired two full time employees which are certified as fire code compliance inspectors. There has been a small increase in the departments' completion fire code compliance inspections.

## RECOMMENDATIONS

Based upon the literature review and the results from the research survey, the following recommendations are being made to assist BTFD in achieving the goals of improving annual fire code compliance inspection for businesses within the jurisdiction of BTFD.

1. Meet with the Bazetta Township Board of Trustees to discuss how BTFD can increase fire code compliance inspection for the business/commercial properties outside of the minimum recommendations of the State of Ohio.
2. Bazetta Fire Department should contact bordering fire departments about their interest in job sharing or in the sharing personnel cost for a fire code enforcement inspector.
3. Research should be considered on a Standard Operating Guideline that distinctively gives fire inspectors on shift a certain number of fire code compliance inspections to complete a month. This research should consider an evaluation process on completion of fire code compliance inspections.

The consideration of one or more of these recommendations will hopefully lead to an improved code compliance inspection program at BTFD. An adoption of an SOP/SOG would set guidance on improving the number of completed fire code compliance inspections. Fire code compliance inspections do help reduce the loss of life from fire and other dangerous conditions by correcting problems before they contribute to a loss of life or property. This also increases the safety for firefighters that respond to fire in a business or facility.

BTFD will need to continually evaluate the effectiveness and efficiency of the fire code compliance program. A good sign that the program is being effective is that we will see an annual increase in the number of fire code compliance inspections over time.

## REFERENCES

- Barr, R. C., & Eversole, J. M. (Eds.). (2003). *Fire chiefs handbook* (6<sup>th</sup> ed.). Tulsa, OK: Pennwell Corporation
- Bazetta Township Fire Department Rules & Regulations Manual. (2007). Cortland, OH: Bazetta Township.
- Buckman III, J. M. (Ed.). (2006). *International association of fire chiefs: Chief fire officer's desk reference*. Sudbury, MA: Jones and Bartlett Publishers.
- Carter, H. & Rausch, E. (Eds.), (2008). *Management in the fire service* (4<sup>th</sup> ed.). Sudbury, MA: Jones and Bartlett Publishers.
- Cote, A. E. (Ed.). (2008). *Fire protection handbook* (20<sup>th</sup> ed.). Quincy, MA: National Fire Protection Association.
- Diamantes, D. (2003). *Fire Prevention: Inspection and code enforcement* (2<sup>nd</sup> ed.). Clifton Park, NY: Thomson Delmar Learning.
- Ebsen, T. D. (2006). *Are self-inspections a viable option for an effective prevention program in Oak Park, Illinois?* (Executive Fire Officer Research Paper), Emmitsburg, MD: National Fire Academy. Retrieved January 7, 2012, from [www.usfa.dhs.gov/pdf/efop/efo39828.pdf](http://www.usfa.dhs.gov/pdf/efop/efo39828.pdf)
- Firehouse (2011) Fire inspection database (Version 7.5.50) [Computer Software]. Des Moines, IA: Visionary Services, Inc.
- Goodson, C. & Murnane, L. (Eds.), (2008). *Essentials of fire fighting and fire department operations* (5<sup>th</sup> ed.). Upper Saddle River, New Jersey: Fire Protection Publications Oklahoma State University

- Hall, D. (2006). *Conducting a cost/benefit analysis of the self-inspection program of the Springfield, Missouri fire department* (Executive Fire Officer Research Paper), Emmitsburg, MD: National Fire Academy. Retrieved January 15, 2012, from [www.usfa.dhs.gov/pdf/efop/efo39969.pdf](http://www.usfa.dhs.gov/pdf/efop/efo39969.pdf)
- Jennings, C. R., & Theil A. K. (Eds.). (2012). *Managing fire and emergency service*. Washington, D. C.: International City/County Management Association.
- Kemp, M. (2002). *Fee program for the city of Lubbock fire marshal's office* (Executive Fire Officer Research Paper), Emmitsburg, MD: National Fire Academy. Retrieved January 15, 2012, from [www.usfa.dhs.gov/pdf/efop/efo33825.pdf](http://www.usfa.dhs.gov/pdf/efop/efo33825.pdf).
- Stokes, S., Holland, K., & Ward, M. (Eds.). (2010). *Fire officer principles and practice* (2<sup>nd</sup> ed.). Jones and Bartlett Publishers, LLC and the National Fire Protection Association.
- United States Army Corps of Engineers: Pittsburgh District: Mosquito Creek Lake. Retrieved January 10, 2012, from <http://www.lrp.usace.army.mil/rec/lakes/mosquito.htm>
- United States Census Bureau. 2010 Population Census County by County, City, Village and Township. Retrieved January 10, 2012, from <http://www.development.ohio.gov/research/documents/ALLSUBCOUNTY2010.pdf>

## APPENDIX 1 – OHIO FIRE EXECUTIVE QUESTIONNAIRE

### OFE 11 Research

#### Introduction

I am the Fire Chief for Bazetta Fire Department located in Trumbull County, Ohio and a student in the Ohio Fire Chiefs Ohio Fire Executive Program (OFE). This questionnaire is being used as part of my applied research to identify the type of inspection work being conducted in similar sized communities and assist Bazetta Fire Department in determining appropriate types and frequency of code inspections that have the maximum effect. This questionnaire will take approximately 10 minutes to complete.

#### Code Compliance Inspection Section

##### 1. Does your agency conduct fire code compliance inspections?

- Yes (Continue survey)
- No (Do not continue survey and submit the survey)

##### 2. Does your agency conduct annual fire code compliance inspections on the following occupancies? (Check all that apply)

	One per year	Two or more
Group A – Assembly	<input type="checkbox"/>	<input type="checkbox"/>
Group B – Business	<input type="checkbox"/>	<input type="checkbox"/>
Group E – Educational	<input type="checkbox"/>	<input type="checkbox"/>
Group F – Factory	<input type="checkbox"/>	<input type="checkbox"/>
Group H – High Hazard	<input type="checkbox"/>	<input type="checkbox"/>
Group I – Institutional	<input type="checkbox"/>	<input type="checkbox"/>
Group M – Mercantile	<input type="checkbox"/>	<input type="checkbox"/>
Group R – Residential	<input type="checkbox"/>	<input type="checkbox"/>
Group S – Storage	<input type="checkbox"/>	<input type="checkbox"/>
Group U – Utility – Miscellaneous	<input type="checkbox"/>	<input type="checkbox"/>

##### 3. Does your agency have at least one full time fire safety inspector?

- Yes
- No

## OFE 11 Reasearch

### 4. Does your agency use any part time fire safety inspectors?

- Yes  
 No

### 5. Does your agency share your fire safety inspector with another agency?

- Yes  
 No

### 6. Who conducts fire code compliance inspections?

- Firefighters  
 Company Officers  
 Both Firefighters and Company Officers  
 Fire/Life Safety Code Inspectors (uniformed)  
 Fire/Life Safety Code Inspectors (civilian)  
 Building Code Officials  
 None

### 7. What is the number of certified Fire Safety Inspectors on shift with your department/agency and is not assigned to Inspection/Prevention?

- 0 – 1  
 2 – 4  
 5 – 8  
 9 – 12  
 Over 13

### 8. Is a minimum number of fire code compliance inspections required in your agency?

- Yes  
 No

### 9. If you answered yes to question 8, how is that determined?

- SOP/SOG  
 Local Ordinance/Resolution  
 Agency Policy  
 Other, please describe

## OFE 11 Reasearch

**10. Does your department utilize a self inspection program for annual fire code compliance? (A mailing from the local fire department asking a business to self check for potential hazards and document fire code compliance of their business.)**

- Yes  
 No

## Community Profile Section

**11. What is your agency type?**

- Volunteer  
 Career  
 Combination  
 Private  
 other

**12. What is the predominant type of community that your agency serves?**

- Rural  
 Suburban  
 Urban

**13. What is the population of your community?**

- Less than 5,000  
 5,001 to 10,000  
 10,001 to 25,000  
 25,001 to 50,000  
 50,001 to 100,000  
 100,001 or more



## OFE 11 Reasearch

### 14. What is your agency fiscal budget for a year?

- Less than \$500,000
- \$500,001 to \$1,000,000
- \$1,00,001 to \$2,000,000
- \$2,000,001 to \$4,000,000
- \$4,000,001 to \$6,000,000
- \$6,000,001 or more

### 15. What portion of your agency fiscal budget is allocated to fire code compliance including salaries, benefits, vehicle travel and other related costs?

- \$0.00 to \$25,000.00
- \$25,001.00 to \$50,000.00
- \$50,001.00 to \$100,000.00
- \$100,001.00 to \$200,000.00
- \$200,001.00 or more

### 16. Your agency is best described as?

- Township
- City
- County
- Private
- Joint Fire/EMS District

## APPENDIX 2 – SURVEY ANSWERS

### Survey Question 1

Does your agency conduct fire code compliance inspections?

Answer Options	Response Percent	Response Count
Yes (Continue survey)	88.2%	165
No (Do not continue survey and submit the survey)	11.8%	22
	<i>answered question</i>	187
	<i>skipped question</i>	10

### Survey Question 2

Does your agency conduct annual fire code compliance inspections on the following occupancies? (Check all that apply)

Answer Options	One per year	Two or more	Response Count
Group A – Assembly	126	40	165
Group B – Business	135	26	160
Group E – Educational	110	61	170
Group F – Factory	115	23	137
Group H – High Hazard	97	42	138
Group I – Institutional	109	38	145
Group M – Mercantile	125	24	148
Group R – Residential	72	18	89
Group S – Storage	112	20	131
Group U – Utility – Miscellaneous	104	18	121
		<i>answered question</i>	174
		<i>skipped question</i>	23

### Survey Question 3

Does your agency have at least one full time fire safety inspector?

Answer Options	Response Percent	Response Count
Yes	67.4%	118
No	32.6%	57
	<i>answered question</i>	175
	<i>skipped question</i>	22

**Survey Question 4**

Does your agency use any part time fire safety inspectors?

Answer Options	Response Percent	Response Count
Yes	38.1%	67
No	61.9%	109
	<i>answered question</i>	176
	<i>skipped question</i>	21

**Survey Question 5**

Does your agency share your fire safety inspector with another agency?

Answer Options	Response Percent	Response Count
Yes	6.3%	11
No	93.7%	164
	<i>answered question</i>	175
	<i>skipped question</i>	22

**Survey Question 6**

Who conducts fire code compliance inspections?

Answer Options	Response Percent	Response Count
Firefighters	0.6%	1
Company Officers	5.6%	10
Both Firefighters and Company Officers	30.3%	54
Fire/Life Safety Code Inspectors (uniformed)	60.1%	107
Fire/Life Safety Code Inspectors (civilian)	0.6%	1
Building Code Officials	0.6%	1
None	2.2%	4
	<i>answered question</i>	178
	<i>skipped question</i>	19

**Survey Question 7**

What is the number of certified Fire Safety Inspectors on shift with your department/agency and is not assigned to Inspection/Prevention?

Answer Options	Response Percent	Response Count
0 – 1	26.3%	46
2 – 4	36.0%	63
5 – 8	20.6%	36
9 – 12	5.1%	9
Over 13	12.0%	21
	<i>answered question</i>	175
	<i>skipped question</i>	22

**Survey Question 8**

Is a minimum number of fire code compliance inspections required in your agency?

Answer Options	Response Percent	Response Count
Yes	25.6%	45
No	74.4%	131
	<i>answered question</i>	176
	<i>skipped question</i>	21

**Survey Question 9**

If you answered yes to question 8, how is that determined?

Answer Options	Response Percent	Response Count
SOP/SOG	26.9%	14
Local Ordinance/Resolution	9.6%	5
Agency Policy	51.9%	27
Other, please describe	11.5%	6
	<i>answered question</i>	52
	<i>skipped question</i>	145

**Survey Question 10**

Does your department utilize a self inspection program for annual fire code compliance? (A mailing from the local fire department asking a business to self check for potential hazards and document fire code compliance of their business.)

Answer Options	Response Percent	Response Count
Yes	8.0%	14
No	92.0%	161
	<i>answered question</i>	175
	<i>skipped question</i>	22

**Survey Question 11**

What is your agency type?

Answer Options	Response Percent	Response Count
Volunteer	19.3%	35
Career	36.5%	66
Combination	43.6%	79
Private	0.6%	1
other	0.0%	0
	<i>answered question</i>	181
	<i>skipped question</i>	16

**Survey Question 12**

What is the predominant type of community that your agency serves?

Answer Options	Response Percent	Response Count
Rural	24.9%	45
Suburban	62.4%	113
Urban	12.7%	23
	<i>answered question</i>	181
	<i>skipped question</i>	16

**Survey Question 13**

What is the population of your community?

Answer Options	Response Percent	Response Count
Less than 5,000	13.2%	24
5,001 to 10,000	18.7%	34
10,001 to 25,000	39.0%	71
25,001 to 50,000	20.9%	38
50,001 to 100,000	6.0%	11
100,001 or more	2.2%	4
	<i>answered question</i>	182
	<i>skipped question</i>	15

**Survey Question 14**

What is your agency fiscal budget for a year?

Answer Options	Response Percent	Response Count
Less than \$500,000	20.4%	37
\$500,001 to \$1,000,000	10.5%	19
\$1,00,001 to \$2,000,000	13.3%	24
\$2,000,001 to \$4,000,000	25.4%	46
\$4,000,001 to \$6,000,000	11.0%	20
\$6,000,001 or more	19.3%	35
	<i>answered question</i>	181
	<i>skipped question</i>	16

**Survey Question 15**

What portion of your agency fiscal budget is allocated to fire code compliance including salaries, benefits, vehicle travel and other related costs?

Answer Options	Response Percent	Response Count
\$0.00 to \$25,000.00	48.9%	86
\$25,001.00 to \$50,000.00	6.8%	12
\$50,001.00 to \$100,000.00	14.2%	25
\$100,001.00 to \$200,000.00	18.2%	32
\$200,001.00 or more	11.9%	21
	<i>answered question</i>	176
	<i>skipped question</i>	21

**Survey Question 16**

Your agency is best described as?

Answer Options	Response Percent	Response Count
Township	31.5%	57
City	54.7%	99
County	0.6%	1
Private	3.3%	6
Joint Fire/EMS District	9.9%	18
	<i>answered question</i>	181
	<i>skipped question</i>	16

### APPENDIX 3 – ADDITIONAL READINGS

- Bradley, S. F. (2003). *Efficiency of fire inspections conducted by fire companies*, (Executive Fire Officer Research Paper), Emmitsburg, MD: National Fire Academy. Retrieved January 15, 2012, from [www.usfa.dhs.gov/pdf/efop/efo35881.pdf](http://www.usfa.dhs.gov/pdf/efop/efo35881.pdf)
- Bryan, J. L., & Picard, R. C. (Eds.). (1979). *Managing fire services*. Washington, D.C.: International City Management Association.
- Coleman, R. J., & Granito, J. A. (Eds.). (1988). *Managing fire services* (2<sup>nd</sup> ed.). Washington, D.C.: International City Management Association.
- DeMar, T. A. (2010). *Evaluating the company level inspections program in the city of Watertown fire department*, (Executive Fire Officer Research Paper), Emmitsburg, MD: National Fire Academy. Retrieved January 15, 2012, from [www.usfa.dhs.gov/pdf/efop/efo44034.pdf](http://www.usfa.dhs.gov/pdf/efop/efo44034.pdf)
- Grant, N. K., & Hoover D. (Eds.). (1994). *Fire service administration*. Quincy, MA: National Fire Protection Association.
- Johnson, W. R. (2009). *Identifying viable strategies for re-inspection program effectiveness*, (Executive Fire Officer Research Paper), Emmitsburg, MD: National Fire Academy. Retrieved January 15, 2012, from [www.usfa.dhs.gov/pdf/efop/efo43227.pdf](http://www.usfa.dhs.gov/pdf/efop/efo43227.pdf)
- Ohio State Fire Marshal. (2011). Ohio Fire Code. Ohio Admin. Code § 1301:7-7-00. Washington, DC: International Code Council
- Ott, D. (2001). *Analyzing and evaluating a fire department's inspection program for efficiency and effectiveness*, (Executive Fire Officer Research Paper), Emmitsburg, MD: National Fire Academy. Retrieved January 15, 2012, from [www.usfa.dhs.gov/pdf/efop/efo32011.pdf](http://www.usfa.dhs.gov/pdf/efop/efo32011.pdf)



- Owens, M. (2010). *The assessment of a comprehensive commercial occupancy inspection program*, (Executive Fire Officer Research Paper), Emmitsburg, MD: National Fire Academy. Retrieved January 15, 2012, from [www.usfa.dhs.gov/pdf/efop/efo45052.pdf](http://www.usfa.dhs.gov/pdf/efop/efo45052.pdf)
- Paszczuk, H. (2011). *Integration of fire code inspection and emergency operations within the state of Connecticut*, (Executive Fire Officer Research Paper), Emmitsburg, MD: National Fire Academy. Retrieved January 15, 2012, from [www.usfa.dhs.gov/pdf/efop/efo35881.pdf](http://www.usfa.dhs.gov/pdf/efop/efo35881.pdf)
- Schamaltz, A. D. (2009). *Inspections: Can Maimi Township keep up with the growth*, (Executive Fire Officer Research Paper), Emmitsburg, MD: National Fire Academy. Retrieved January 15, 2012, from [www.usfa.dhs.gov/pdf/efop/efo42906.pdf](http://www.usfa.dhs.gov/pdf/efop/efo42906.pdf)
- Timm, K. L. (2004). *Code enforcement consolidation: Is it right for the city of Two Rivers*, (Executive Fire Officer Research Paper), Emmitsburg, MD: National Fire Academy. Retrieved January 15, 2012, from [www.usfa.dhs.gov/pdf/efop/efo37649.pdf](http://www.usfa.dhs.gov/pdf/efop/efo37649.pdf)
- Vanlandingham, J. A. (2006). *Developing an effective fire inspection program*, (Executive Fire Officer Research Paper), Emmitsburg, MD: National Fire Academy. Retrieved January 15, 2012, from [www.usfa.dhs.gov/pdf/efop/efo38814.pdf](http://www.usfa.dhs.gov/pdf/efop/efo38814.pdf)
- Walz, C. (2011). *Formatting a company inspection program for the city of Pittsburg*, (Executive Fire Officer Research Paper), Emmitsburg, MD: National Fire Academy. Retrieved January 15, 2012, from [www.usfa.dhs.gov/pdf/efop/efo45388.pdf](http://www.usfa.dhs.gov/pdf/efop/efo45388.pdf)
- Woolard, G. (2010). *Investigating fire code enforcement alternatives for the Franklin fire department*, (Executive Fire Officer Research Paper), Emmitsburg, MD: National Fire Academy. Retrieved January 15, 2012, from [www.usfa.dhs.gov/pdf/efop/efo44875.pdf](http://www.usfa.dhs.gov/pdf/efop/efo44875.pdf)

## **APPENDIX 4 – BUSINESS SELF-FIRE INSPECTION PROGRAM**

### **Business Self-Inspection Program**

Bazetta Township and the Bazetta Township Fire Department are instituting a voluntary Self-Inspection Program for small business or professional offices, small retail shops, and small personal service shops. These businesses would conduct their own inspection of their premises to check for various safety issues. This optional program alleviates the need for one of the formal, physical inspections by the BTFD. With the current number of businesses in our community, the BTFD has found it challenging to inspect every business as frequently as has been done in the past with the current staffing levels. BTFD is concerned, that simply not inspecting some businesses as often impacts the safety of the business and its owners, employees, and customers. This program is an example of Bazetta Township and the BTFD maintaining the high-level of quality service that our public expects while being conscious of our budgetary limitations, all while working with our business community to keep them and the public safe.

Bazetta Township Fire Departments' new Self-Fire Inspection Program is designed for light hazard commercial occupancies that do not have a high occupant load or would be expected to have a high level of risk. Light hazard occupancies are locations where there is a low amount of combustible materials within the occupied space, including furnishings, decorations, and contents. These occupancies may include: Small business or professional offices, small retail shops, small personal service shops (Barber, beauty shops, etc.), etc.

If your business fits into this type of description, you may be eligible to perform your own self-fire inspection(s) which may decrease the interval an actual fire department inspection is conducted. The department will conduct mailings of the self-inspection form to business who may qualify to participate in this program. Businesses are required to complete and return a completed copy of the form. Businesses who fail to complete the form will be subject to a formal inspection. Businesses who fail to correct violations or maintain a code compliant facility, in addition to having an unsafe facility, will be subject to additional code enforcement activities.

Performing self-fire inspections will promote a safer year-round environment for your business and the public.

We encourage any business or home owner to inspect your home or business for potential code and safety issues. A few minutes checking for problems can prevent a fire or other emergency situation.

A copy of the Ohio State Fire Marshals' home inspection form and the Bazetta Township Fire Department Self-Inspection form are available on our web site. [www.Bazettatwp.org](http://www.Bazettatwp.org)

If you have any questions concerning this program or any questions about the Bazetta Township Fire Department you can reach us at 330-637-4136.

## **Welcome to the Bazetta Township Fire Department Self-Inspection Program**

The Bazetta Township Fire Department is instituting a Self-Inspection program. With the number of businesses in the community we are unable to continue to inspect every business with the current bureau staffing. The department is concerned that by simply not inspecting some businesses it could impact your safety. With all this in mind the department will begin using a self-inspection process to reduce the need for the fire department to conduct some formal inspections.

Bazetta Township Fire Departments' Self-Fire Inspection Program is designed for light hazard commercial occupancies that do not have a high occupant load. Light hazard occupancies are locations where there is a low amount of combustible materials within the occupied space, including furnishings, decorations, and contents. These occupancies may include: Small business or professional offices, small retail shops, small personal service shops (Barber, beauty shops, etc.), etc.

The self-inspection program is a fairly simple concept. A form is mailed to businesses consisting of a cover letter explaining the program, a self-inspection checklist to be completed and mailed back to the fire department.

Businesses will be requested to respond within 30 days. After 30 days have passed, a reminder letter or phone call will occur. Those businesses that do not respond will be placed on the on-site inspection list, for actual physical inspections by the fire department. The self-inspection program is not mandatory. All designated businesses will also be given the opportunity to request an on-site inspection if they choose not to participate.

### **Business Owner Self-Inspection Guidelines**

- Fire Extinguishers & Fire Protection Systems
- General Requirements and Housekeeping
- Exiting
- Flammable Liquids & Hazardous Materials
- Electrical Requirements

By following these self-inspection guidelines, the chances are decreased that a fire will destroy your business. Remember, fire safety inspections focus on maintaining a safe work environment and keeping each business in business!

### **Fire Extinguishers & Fire Protection Systems**

A *minimum* of one (1) 2A-40BC-fire extinguisher is required to be installed in every business. One fire extinguisher may serve a maximum of 6,000 square feet and be spaced not more than 75 feet from any location in the business.

Fire extinguishers should be easily accessible, wall mounted between 3-5 feet from the floor.

Fire Extinguishers must be serviced and tagged annually, after each use and when the gauge indicates recharge, by a licensed contractor.

No obstructions, including storage are allowed around standpipes, fire hose cabinets, sprinkler valves and hydrants. Keep designated fire lanes around your business clear at all times.

A **WORKING** smoke detector on each level, test it monthly and replace the batteries once a year.

### **General Requirements and Housekeeping**

Make sure address numbers and letters are clearly visible from the street. Consider adding a contrasting background to the address where there is a problem seeing the numbers.

Remove combustibles, trash and other debris from around the building's exterior.

Do not store ANY materials in fire systems equipment rooms including mops, brooms, boxes or any other combustible or flammable material.

Keep storage, furnishings and merchandise a minimum of 36 inches away from heat producing equipment to minimize fire risk.

Maintain a minimum of two feet (2') of clearance between stored materials and the ceiling and eighteen inches (18") below sprinkler heads. Keep storage orderly, secure and located so exits from the building will not be blocked.

Repair holes in walls; replace ceiling panels and other breaches where portions of walls or ceilings have been damaged. This maintains the fire resistive integrity of your building's original construction.

### **Exits**

Three feet (3') of clear space is required in front of every exit door. The exit may not be obstructed with storage, trash, shelves, cabinets or equipment. The exit must be accessible from the aisle.

Exit doors may not be equipped with any kinds of deadbolt or latch which requires the use of a key or any special knowledge or effort to open the door from the inside.

### **Flammable Liquids & Hazardous Materials**

ALL excessive storage of flammable or combustible liquids must be removed from a business. Only up to ten gallons (10 gal) are allowed to keep for maintenance, operations, demonstration, treatment and other type of laboratory work.

Flammable and combustible liquids may only be stored in approved containers. Compressed gas cylinders must be adequately secured to prevent them from falling or being

knocked over. Each cylinder must be labeled with its contents.

### **Electrical Requirements**

Extension cords cannot be used permanently in any business. Only UL or FM listed fused or circuit breaker surge suppressors may be used for non-permanent appliances like calculators, desk lamps, typewriters and computers. Large fixed appliances like refrigerators, table saws and other large equipment should be plugged into outlets directly not power strips or other devices.

Extension cords and fused electrical cords cannot be permanently attached to walls, floors or ceilings. No wiring or cords may extend through walls, ceilings, and floors or under doors or carpets and rugs.

Replace worn or frayed wires to minimize fire hazard.

All electrical receptacles must have cover plates.

Thirty inches (30") of unobstructed access area is required in front of electrical panels.

When conducting your self-inspection if you have questions or need additional assistance please contact the Bazetta Township Fire Department at 330-637-4136.



**BAZETTA TOWNSHIP FIRE DEPARTMENT**  
773 Everett-Hull Road \* Cortland, Ohio \* 330-637-4136

**Please complete and return in 30 days**

**For assistance your inspection please call or go to [www.bazettatwp.org](http://www.bazettatwp.org)**

**Exterior Inspection**

The address is placed in a position on the building that is plainly visible from the street. \_\_\_Yes \_\_\_No

The gas meter and piping is protected from possible damage. \_\_\_Yes \_\_\_No

Combustibles and dumpsters are stored at least 10' from the exterior of the building. \_\_\_Yes \_\_\_No

Does your business utilize the Knox Box entry program, if so are the keys in it up to date? \_\_\_Yes \_\_\_No \_\_\_N/A

**Fire Protection Equipment**

One fire extinguisher present every 75 feet of travel. \_\_\_Yes \_\_\_No

Extinguishers are serviced, inspected and tagged annually by a fire protection service. \_\_\_Yes \_\_\_No

Fire Alarm system is serviced, inspected and tagged annually by a fire protection service. \_\_\_Yes \_\_\_No \_\_\_N/A

Any fire extinguishing system (Sprinklers, Hood, and Computer Room) is inspected and tagged as required on either the required 6 month or annual basis by a fire protection service. \_\_\_Yes \_\_\_No \_\_\_N/A

Does your business have working smoke detector(s)? \_\_\_Yes \_\_\_No

**Interior Inspection**

Holes or breaches are absent from the floor and ceilings. \_\_\_Yes \_\_\_No

Combustible materials have a 36" clearance from any heat producing appliance. \_\_\_Yes \_\_\_No

Compressed gas cylinders are adequately secured from falling and labeled with the contents. \_\_\_Yes \_\_\_No

Oily rags and similar materials are kept in a metal-lined container equipped with tight fitting covers.  
\_\_\_Yes \_\_\_No \_\_\_N/A

Trash accumulation is removed from the building daily? \_\_\_Yes \_\_\_No

**Exits**

Exits are free from any obstruction, and are not locked during normal business hours. \_\_\_Yes \_\_\_No

Aisles are free from any obstructions that could minimize egress. \_\_\_Yes \_\_\_No

Exits lights and emergency lighting are in place, illuminated, function properly. \_\_\_Yes \_\_\_No

**Electrical Equipment and Wiring**

Incorrect use of extension cords and multi-plug electrical adapters? (Cannot be used as permanent wiring)  
 Yes  No  N/A

All electrical switches and receptacles have cover plates.  Yes  No

The electrical panel is not obstructed and has a minimum of 30" clearance.  Yes  No

All electrical wiring is covered to prevent accidental shock.  Yes  No

Name of person completing this form: \_\_\_\_\_

Contact Phone # \_\_\_\_\_

Please explain any NO answers, and provide a date when this item will be corrected. \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Signature \_\_\_\_\_

**APPENDIX 5 – Fire Inspection Standard Operating Guideline****STANDARD OPERATING GUIDELINE****BAZETTA FIRE DEPARTMENT  
ADMINISTRATION****FIRE INSPECTION GUIDELINE****SOG: 062313.65****EFFECTIVE DATE: 6/23/2013****SUPERSEDES: ALL****APPROVED: \_\_\_\_\_****CHIEF****PAGE 1 OF 1****Purpose**

The purpose of this guideline is to establish fire department procedure for performing fire inspections of all commercial properties for fire and life safety hazard(s) with a view to their elimination in accordance to the Ohio Fire Code, the Ohio Revised Code, and any other application.

**Policy**

- A. Fire Inspections will be conducted Monday thru Friday, during the employees' normal schedule shifts.
- B. At least five (5) inspections will be conducted per shift each month. The time of inspections should be conducted from 1000 to 1500 hours unless other arrangements are made with the business owner to perform the inspection at another time on the shift. The place to be inspected shall be from a list provided by your shift captain to you the fire inspector. The Fire Inspector shall make the arrangements with the business owner (or person in charge of the premises) for the inspection at least 48 hours in advance of the inspection.
- C. A copy of the inspection report(s) completed that shift (i.e. the report placed into the computer) will also be logged on the daily log/journal. If the number of required inspections was no completed during the month a written explanation for not completing the required number of inspections will be submitted by the shift captain to the fire chief.
- D. Each inspection report shall state the next scheduled inspection and provide the contact information for the business owner (so the shift captain can contact the business owner in the event that the fire inspector cannot make the inspection).