

# **PERSONNEL RECALL PROCEDURES**

## **EXECUTIVE ANALYSIS OF FIRE SERVICE OPERATIONS IN EMERGENCY MANAGEMENT**

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## ABSTRACT

The problem was that Pike Township Fire Department had no procedures for the recall of off-duty personnel. The purpose of this research paper was to develop a Standard Operating Guideline for the recall of off-duty personnel. The research questions were:

1. Under what circumstances might the recall of off-duty personnel be necessary?
2. How should the implementation of an off-duty personnel recall be accomplished?
3. What components would be included in a Standard Operating Guideline for the recall of off-duty personnel?

Research verified that Pike Township could suffer the effects of tornados, earthquakes, floods, civil disturbances, terrorism, and large-scale long-term incidents. Depending on the incident, the need for resources increase with incident severity. At some point, available on-duty resources may become exhausted, thus requiring replenishment by the recall of off-duty personnel.

Review of references identified that varying levels of recall be established. The most common levels addressed were limited recall, single-shift recall, and total personnel recall. Once the recall level was determined, through the use of an up-to-date recall list notification of personnel could proceed. Methods of notification included telephone, personal pagers, and the use of both radio and television media.

A comparison chart of Standard Operating Procedures was used to assist in determining what components should be included in a Standard Operating Guideline specific to Pike Township fire Department. The result was the development of a Standard Operating Guideline consisting of the following components: (a) purpose, (b) recall description, (c) staff

responsibilities, (d) notification, (e) reporting information, (f) compensation, and (g) demobilization.

The final recommendation was to approve and implement the Standard Operating Guideline that resulted from this research.

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## **INTRODUCTION**

The problem is that Pike Township Fire Department has no procedures for the recall of off-duty personnel. The purpose of this research paper is to develop a Standard Operating Guideline (SOG) for the recall of off-duty personnel. This is an action research project. The research questions are:

1. Under what circumstances might the recall of off-duty personnel be necessary?
2. How should the implementation of an off-duty personnel recall be accomplished?
3. What components would be included in a Standard Operating Guideline for the recall of off-duty personnel?

## **BACKGROUND AND SIGNIFICANCE**

The Pike Township Fire Department was established in 1951 as a volunteer organization. At the time of establishment Pike Township was a mostly rural area, comprised of farmland, Rock Island Refinery, and limited residential areas. Being a volunteer organization, monies and equipment were acquired through special tax levies, donations, fundraisers, and scavenging. Radio equipment was beyond the reach of the newly established Pike Township Volunteer Fire Department and no dispatching mechanism was in place.

Initially the fire department was summoned by using a telephone ring down system. Citizens would call a designated number, which rang the telephones at the homes of all the members for someone to answer. Members responded to the fire station to pick up the apparatus. If the apparatus was already gone, they responded to the scene. Large sirens located on the stations were manually activated to alert those members within hearing distance to respond to the stations (M. Tyler, personal communication, November 7, 2002). As radio technology improved,

and with the apparent unreliability of the ring down system, Marion County Rural Fire Dispatching was organized in 1957 to dispatch several township fire departments. Members were alerted using home radios and personal scanners (M. Tyler, personal communication, November 7, 2002). These radios coupled with station sirens and the requirement that all members live within the township made the recall of all personnel possible. As radio technology continued to improve, the department went to tone activated radio frequency pagers. Each member carried a personal pager, and was still required to live in the township. This made total member recall become somewhat easier and more reliable. Between 1974 and 1982 the volunteer corporation began hiring paid firefighters in order to provide quicker and more reliable response. As paid personnel were hired to stay on station the requirement for township residency became less important. In 1982 when the push to move to a fully paid fire department began, residency within the township was not required. However, residency within the county or an adjacent county was required. As the department grew and emergency response moved from a volunteer home based response, to a personnel on-duty station based response, personal pagers were no longer provided, station sirens were no longer used, and total recall of personnel was no longer an easy task. In the beginning department personnel lived within a forty-four square mile area and responded when called to the closest station. Now personnel live in an area of approximately 3,070 square miles and work a 24-hour on, 48-hour off shift (<http://www.stats.indiana.edu>).

In the beginning total recall of personnel could be done by siren or activation of personal pagers. However, personnel numbers were low, and the potential for most or all of the personnel to be part of the reason for recall was likely. Now, Pike Township has no established way to do a total recall of personnel, but personnel numbers are higher, and the potential for department

personnel being affected by the emergency is considerably less due to the distance. In order to provide a high level of public safety for the citizens of Pike Township and to meet criteria as stated in Emergency Support Function #4 of the Consolidated City of Indianapolis (Marion County) Comprehensive Emergency Management Plan (nd), which states:

All Marion County firefighters could be activated in the event of a major emergency (p. 4-1).

Pike Township Fire Department must develop an effective means to recall its personnel when necessary.

This research project is directly related to the capability assessment section taught in the manual for the National Fire Academy's *Executive Analysis of Fire Service Operations in Emergency Management* course that reads (National Fire Academy [NFA], 2002):

Based on identified shortfalls, develop methods to obtain critically needed resources (p. SM 6-1).

This research project is related to operational objective four of the United States Fire Administration's manual *Executive Fire Officer Program Operational Policies and Procedures Applied Research Guidelines* which states (United States Fire Administration [USFA], 2002):

To promote within communities a comprehensive, multi-hazard risk-reduction plan led by the fire service organization (p. II-2).

## LITERATURE REVIEW

### Circumstances for potential recall of personnel

Disasters are, fortunately, a generally rare occurrence for any particular jurisdiction. Yet, when they do occur, they place tremendous demands upon the fire service and other

emergency response agencies. There is no opportunity during the disaster itself to develop staffing and response plans; general plans or strategies must be developed and in place well before a disaster strikes. This need is well-recognized and is demonstrated by the very existence of laws requiring communities to have disaster plans (Smith, 1990, p. 1).

The problem of augmenting your own fire department personnel at the scene of a disaster is not simple. You may need to supplement on-duty forces by recalling off-duty personnel. (Kramer, Bahme, 1992, p. 101). Most career fire departments work a schedule that allows two-thirds of the employees to be off-duty at any given time. A specific method for calling those off-duty personnel back to duty in an emergency is essential. This recall or notification system must work reliably, given the community's expected range of disasters (Coleman, Granito, 1988, p. 337). Therefore, under what circumstances might the recall of off-duty personnel be necessary? National Fire Protection Agency (NFPA) Standard 1600 (2000) states:

During a hazard identification and risk assessment, hazards to be considered at a minimum shall include, but not be limited to 1) natural events, 2) technological events, 3) human events (p. 1600-5).

Disaster situations that could affect Marion County, Indiana might include but are not necessarily limited to the following: tornados, earthquakes, floods, civil disturbances, terrorism, and large-scale long-term incidents (i.e. conflagrations, chemical spills, etc.).

Marion County, Indiana, of which Pike Township is a part, is located in central Indiana. According to the Federal Emergency Management Agency (FEMA), central Indiana lies within wind zone IV (capable of having winds of 250 mph) and has a tornado activity of 6 to 10 tornados per 1000 square miles. These factors identify Marion County as a high-risk tornado

area (“Taking Shelter from the Storm,” 1999). Between 1952 and 1995 there have been 32 tornados recorded in Marion County, ranging in intensity from F1 to F4 on the Fujita Scale (Appendix A) (“Indiana Tornadoes,” 1996). On September 20<sup>th</sup>, 2002, an F2/F3 tornado struck Marion County, Indiana (Nield, 2002).

The New Madrid seismic zone lies within the central Mississippi Valley extending into southwestern Indiana. Historically, this area has been the site of some of the largest earthquakes in North America including four quakes with a magnitude 7-plus estimate, which occurred in a three-month period between 1811 and 1812 (“Brace yourself ,” 2002). Today geologists predict that such an earthquake could occur again. Scientists predict a 100% chance of an earthquake greater than 6.0 occurring east of the Rockies by the year 2010. Only by being aware of the earthquake potential and the steps to take before, during, and after can we be prepared (“Be Quake Awake,” nd). The results of an earthquake damage computer modeling with a 7.5 Richter earthquake in the Wabash Valley Fault (Appendix B) showed figures that would easily overwhelm the capabilities of on-duty emergency responses within Marion County.

Portions of Pike Township sit in a flood zone of Eagle Creek and the flowage easement for Eagle Creek Reservoir (T. Tracy, personal communication, November 6, 2000). Historically the failure of artificial structures such as dams has caused a number of floods (Zeleny, 1983, p. 238). Although a major flood is remote, it is always possible.

The deliberate and public refusal to obey the law through civil disorder has been practiced for hundreds of years (Zeleny, 1983). “The importance of a recall system was clearly demonstrated during the series of civil disorders in the latter part of the 1960’s, that greatly taxed the staffing of fire departments” (Gratz, 1972, p. 183). Fire Chief Harry Tibbetts noted that during his 30 years with the Indianapolis Fire Department, the civil disorders of 1969 was the

only instance that he could recall where off-duty Indianapolis Firefighters were recalled to duty (H. Tibbetts, personnel communication, November 12, 2002).

“The continued threat of terrorist attacks on U.S. soil is no longer a matter of if, but sadly, a matter of when the next one will occur”. We, as fire service professionals must prepare for the worst (Shobert, 2002, p. 1). With its large population, famous landmarks, attractions, and a broad economic base ranging from agriculture to high technology, Indianapolis could be an inviting target for terrorists (“Analysis and Trends,” 2002).

Currently, Pike Township is home to one of the largest industrial parks in the United States, the headquarters of Dow Agro Sciences, several “upscale” office parks, a variety of residential and retirement communities, and the nation’s largest municipal park. Pike Township Fire Department, as one of 13 signatories to the Marion County Fire and Emergency Response Mutual Aid Agreement (2001), which has a non-binding obligation to respond when called for assistance. As stated in the agreement “At the request of the Incident Commander, the Fire Departments agree to provide second alarm or greater alarm mutual aid to any department in Marion County, Indiana.”

In summary, taking into consideration the unpredictability of Mother Nature and instability of the world community, it is clear to see that whether natural or manmade, the potential for disasters exist. As the severity of the incident increases so does the need for resources. At some point on-duty resources may become exhausted or overtaxed. It is important that a department be able to supplement or replace on-duty personnel with off-duty personnel to replenish its resources. To do this effectively and efficiently a standard operating procedure must be developed as a guide for implementation.

## **Recall Implementation**

Fire departments may respond to disasters in two general ways; either the jurisdiction itself is involved in the disaster, or the department resources are needed to assist another jurisdiction involved in a disaster. In either case, the normal staffing strategy of the department will be insufficient to meet the magnitude of the need (Smith, 1999, P. 1).

“At some point in an emergency, the situation will require more personnel, either to relieve those people who have been on duty for a long time or to supply additional resources to manage the emergency” (Landesman, 1995 p. 47). Literature review suggests that the means to accomplish personnel recall is somewhat limited. However, whether Fire Service, Police Agency, or Hospital, all identify that varied levels of recall must exist to meet varying needs. Fort Worth Fire Department identifies three levels of personnel recall. Level I; A limited emergency recall employed to fill a limited number of positions. Level II; A single shift recall employed when a large number of off duty personnel are needed to mitigate an existing or imminent emergency situation. Level III; A total recall employed when existing conditions have or will significantly reduce Fire Department resources below safe levels (“Emergency Recall of Personnel”, 1998). Washington Township Fire Department also identified three levels. Limited Call Back, the call back of specific companies or specialized teams from one or more shifts. Level One Call Back, an entire call back of the next oncoming shift. Level Two Calls back, an entire call back of both off-duty shifts (“Personnel Call Back,” nd). Police agencies identify call back procedures as it relates to their response. The Indianapolis Police Department utilizes a Mobile Field Force (MFF) concept and four levels of mobilization: (a) deployment of on-duty MMF officers from the impacted district, (b) deployment of all on-duty MFF officers, (c) partial recall of off-duty MFF officers, (d) recall of all MFF officers. (“Event Response Group,” 2002, p. 27) Hospitals

may utilize a Disaster Coordinator, who will determine the level of response the hospital will generate. For Saint Vincent Hospital that level of response will be either to (a) maintain day-to-day operations, (b) switch to the Emergency Department Disaster Plan, or (c) switch to the Hospital wide Disaster Plan (“Disaster Plan,” 1999). The Indiana Army National Guard has two levels of notification, involuntary recall and voluntary recall. Involuntary recall is used when personnel are required to report for duty. Voluntary recall is use to solicit volunteers (“Personnel Mobilization Guide,” 2002).

Methods of notification are limited to available technology. Telephone contact is the most recognized method to contact off-duty personnel. Options addressed in the Fire Officers Guide to Disaster Control (1992) include automatic dialers, public radio, and television (p. 101). Dr. Linda Landesman suggests that telephone, fax and beeper numbers should be updated on a regular basis to be used for call back of personnel (Landesman, 1996, p. 47). The Standard Operating Procedures (SOP’s) of Washington Twp. Fire Department (nd) identifies the use of a call back tree and the media for firefighter notification. Similarly Fort Worth Fire Department SOP’s (1998) state recall will be conducted by telephone and/or through the media. Orange County Fire/Rescue Division SOP’s (1998) require supervisors to maintain a current roster of employees to include: Name, Address, Telephone Number, and Emergency Contact for the purpose of personnel recall. Public radio and television may also be utilized to make appropriate announcements. All Indianapolis Police Officers carry an assigned pager (G. Rothenbush, personal communication, November 13, 2002). Should the need arise on and off-duty officers may be paged through the Metropolitan Emergency Communications Agency (MECA) (“Event Response Group,” 2002, p. 27). The Bay County, Florida Emergency Services Fire Services Division also uses pagers for personnel notification. Once an incident commander determines

the need for resources, he or she will communicate to dispatch that a district page is needed or a countywide page is needed (“Authorization for Overtime, 2000). Likewise, the telecommunication’s operator will have a list of personnel who must be paged for response to the Command Center should there be a need to activate one of the hospitals disaster plans (“Disaster Plan,” 1999). Recall for the Indiana National guard is primarily by telephone contact. News media announcements may also be utilized. Military regulations dictate that if an individual hears an announcement or if pre-identified situations arise (i.e. nuclear attack) then personnel are to contact their unit for instructions (“Personnel Mobilization Guide,” 2002).

The literature reviewed indicates the need for varying levels of response depending on the amount and types of resources needed. These levels could be identified by the need to fill specific positions, the need for specially trained or equipped teams, work schedule, or a general total personnel recall. Methods for notification of personnel are somewhat limited. Telephone, personal pagers, and use of both radio and television media are the choice.

### **Components of Standard Operating Guideline**

The recall of personnel should be developed into a detailed written set of procedures that include: a) Criteria for recall, b) Authority for initiating a recall, c) Identification of whom to recall, d) Criteria for selective recall, e) Location of staging areas, f) Procedures for obtaining safety equipment, g) Procedures for safe response to staging areas, h) Designation of person to report to, i) Definition of recall communications system, j) Cost considerations, k) Utilization of mutual aid where possible in lieu of recall, l) Assignment of staff personnel (International Association of Fire Chiefs, 1985, p. 86).

Using the standard operating procedures/guidelines of various organizations, a comparison chart of components was developed and may be found in Appendix C. This

comparison identifies the components in each procedure/guideline and the total number of times a component was addressed across all the procedures.

## **PROCEDURES**

The purpose of this applied research project was to develop a procedure for the recall of personnel. To accomplish this, the following seven steps were utilized.

### **Process**

Step one: A literature review was conducted using material available through the Learning Resource Center located at the National Fire Academy, various fire service organizations, periodicals received through subscriptions and internet sites.

Step two: Various Fire departments, the local police agency, and a local hospital were contacted and existing standard operating procedures were gathered for review.

Step Three: Through personal communications, information was solicited from various individuals, which directly related to this research project.

Step four: Using the Standard Operating Procedures solicited from various agencies a comparison chart (Appendix C) was developed identifying component parts that have been included in personnel recall procedures.

Step five: Obtained a theoretical Earthquake damage assessment from Marion County Emergency Management using HAZUS computer Modeling.

Step six: Developed a standard operating guideline for use by the Pike Township Fire Department.

Step seven: Submit the developed standard operating guideline to the Chief of the department for review and approval.

## **Limitations**

The scope of the materials used in the research of this project was very limited. Most of the published materials found only addressed personnel recall briefly as an issue of a larger topic. The Learning resource center yielded only two EFO research papers that addressed the subject. Published materials were primarily those identified in one of the research papers with few being recently published. The ability to gather Standard Operating Guidelines from Fire and Police departments was hampered by the contacted departments either having no SOG's themselves or not responding to inquiries. The local hospital was contacted and they provided their procedures. Obtainable military documents were also reviewed. Generally it was discovered that public service agencies realized the need for procedures, but just presumed that if additional personnel were needed, they would just be called with no real method of accomplishment identified.

## **Definition of Terms**

FEMA Federal Emergency Management Agency. An agency of the federal government.

MECA Metropolitan Emergency Communications Agency. Local dispatch agency.

MFF Mobile Field Force. A unit of the local police agency.

NFPA National Fire Protection Agency. A private standards making organization.

SEMA State Emergency Management Agency. An agency of state government.

SOG's. Standard Operating Guidelines. A set of guidelines used to direct the activities of an organization.

SOP's. Standard Operating Procedures. A set of procedures used to direct the activities of an organization.

## RESULTS

A comparison chart was produced to address the question of components to be included in a “personnel recall” SOG. That chart may be found in the appendix.

### Answers to Research Questions

Research Question 1. Under what circumstances might the recall of off-duty personnel be necessary? Disasters are generally a rare occurrence for any particular jurisdiction. Yet, when they do occur, this places tremendous demands upon the fire service and other emergency response agencies (Smith, 1990). Both Smith (1990) and Coleman (1988) concur that specific procedures must be in place, prior to the need, for the recalling of personnel. National Fire Protection Agency Standard 1600 (2000) states:

That during a hazard identification and risk assessment, hazards to be considered at a minimum shall include, but not be limited to 1) natural events, 2) technological events, 3) human events (p. 1600-5).

Based on a review of historical data, Marion County, Indiana where Pike Township is located has suffered or has the potential to suffer; tornados, earthquakes, civil disturbances, acts of terrorism and large scale incidents.

Tornados in Indiana are not uncommon. On September 20<sup>th</sup>, 2002 an F2/F3 tornado struck Marion County, Indiana (Nield, 2002). Between 1952 and 1995 Marion County has suffered thirty-two tornados at intensity as high as F4 ([www.tornadoproject.com/alltorns/intorn2.htm](http://www.tornadoproject.com/alltorns/intorn2.htm)). The Federal Emergency Management Agency has classified this area as high-risk. An area capable of having winds of 250 mph (wind zone IV) and having a tornado activity of 6 to 10 tornados per 1000 square miles (“Taking Shelter form the Storm,” 1999). Tornados in Pike Township are expected.

Southwestern Indiana lies within the Mississippi Valley New Madrid seismic zone. This area has seen some of the worst earthquakes in North America. Four earthquakes estimated at greater than magnitude 7.0 occurred in this area between 1811-1812. (“Brace yourself ,” 2002). According to Scientists there is a 100% chance of an earthquake greater than 6.0 occurring east of the Rockies by the year 2010. Only by being aware of the earthquake potential and the steps to take before, during, and after can we be prepared (“Be Quake Awake,” nd). Found in the appendix is the theoretical results of a 7.5 Richter earthquake in the Wabash Valley Fault. This model estimates potential casualties, property damage, and effects on the infrastructure to Indianapolis-Marion County should a 7.5 earthquake strike. Earthquake damage in Pike Township is a possibility.

Portions of Pike Township sit in a flood zone of Eagle Creek and the flowage easement for Eagle Creek Reservoir (T. Tracy, personal communication, November 6, 2000). Although flood potential is controlled and may be remote, it is always possible.

Fire Chief Harry Tibbetts noted the recall personnel during civil disorders in Indianapolis in 1969 (H. Tibbetts, personal communication, November 12, 2002). The reference, Fire Department Management: Scope and Method points out that fire department staffing is greatly taxed during these disorders (Gratz, 1972, p. 183). Considering civil disorder has been practiced for hundreds of years as a method to usurp civil authority (Zeleny, 1983, p. 607), a civil disorder in Pike Township is possible.

“The continued threat of terrorist attacks on U.S. soil is no longer a matter of if, but sadly, a matter of when the next one will occur” (Shobert, 2002, p. 1). As noted in a local Domestic preparedness bulletin, Indianapolis would be tempting to a terrorist. Large population,

landmarks, attractions, and a broad economic base make inviting targets (“Analysis and Trends,” 2002). The possibility of terrorist attacks in Pike Township is quite real.

The presence of industry, business, residential, retirement, and recreational occupancies makes the potential of a large-scale, long-term incident in Pike Township a viable possibility. As a signitor of the Marion County Fire and Emergency Response Mutual Aid Agreement (2001), a non-binding obligation exists to provide aid to our mutual aid partners. The combination of jurisdiction potential and responsibilities to mutual aid make any countywide disaster a Pike Township concern.

Research Question 2. How should the implementation of an off-duty personnel recall be accomplished? Research indicates that the recall of personnel should be divided into various levels identifying need. Fort Worth Fire Department uses three levels. Level I, limited recall; Level II, single shift recall; and Level III, total personnel recall (“Emergency Recall of Personnel”, 1998). Similarly Washington Twp Fire Department addresses Limited Call Back, limited recall; Level one call back, single shift recall; and Level two call back, total personnel recall (“Personnel Call Back,” nd). The Indianapolis Police Department divides levels of call back into on-duty and off-duty personnel, then subdivides into a partial recall or total recall of personnel (“Event Response Group,” 2002, p. 27). The local hospital determines levels of call back according to their disaster plan and the state National Guard uses an involuntary and voluntary recall system.

Once it has been determined what specific resources is needed or how many resources are needed, then notification can be undertaken. The use of telephone contact is the dominant choice. Supplementing telephone recall with media announcements is used as reinforcement. For agencies that provide personnel pagers, this is the method of choice. Only the military identifies

the need for the individual to contact the agency prior to notification should a qualifying situation arise.

Research Question 3. What components would be included in a Standard Operating Guideline for the recall of off-duty personnel? A comparison chart of components was assembled from the procedures and guidelines received during the literature search. This chart may be found in Appendix C. Components compared include: (a) authority to recall personnel, (b) levels of recall, (c) recall priority, (d) mandatory reporting directive, (e) recall list maintained, (f) compensation, (g) use of media, (h) staff responsibilities, (i) personnel staging location, (j) station clothing requirement, (k) personal food requirement, (l) use of forms, (m) dismissal/termination.

The outcome of this research question is the development of a Standard Operating Guideline for Pike Township Fire Department. Using the comparison chart as a guide, and taking into consideration existing SOG's, and available staff, a Standard Operating Guideline was developed and may be found in Appendix D. This guideline addresses the areas of: (a) purpose, (b) recall description, (c) staff responsibilities, (d) notification, (e) reporting information, (f) compensation, and (g) demobilization.

## **DISCUSSION/IMPLICATIONS**

Disasters are, as noted by Smith (1990), are generally rare occurrence, but they do happen. The National Fire Protection Association in its disaster management standard minimally identifies three hazards; natural events, technological events and human events, that should be considered during a community risk assessment (NFPA, 2000). Marion County, Indiana, of which Pike Township is part, sits in what is part of the Midwest tornado belt also known as

tornado alley. FEMA has classified this area as a high-risk tornado area, capable of having winds of 250mph and an activity of 6 to 10 tornados per 1000 square miles (“Taking Shelter from the Storm,” 1999). Having 32 tornados between 1952 and 1995 supports this classification (Indiana Tornados, 1996). This proved correct on September 20<sup>th</sup>, 2002 when an F2/F3 tornado cut through southeastern Indianapolis (Nield, 2002). Although Pike Township was spared any damage, City/County resources were thinned. Post Incident Analysis of this tornado, in which this author was involved, identified that affected agencies were almost to the point of resource exhaustion. Had this particular tornado taken a slightly different course the need for many additional resources most likely would have been necessary.

Earthquake is also an ever-increasing concern. With part of Indiana lying in the New Madrid seismic zone (“Brace Yourself,” 2002), Marion County could easily be affected. Scientists, having predicted a 100% chance of a major earthquake east of the Rocky Mountains by the year 2010 (“Be Quake Awake,” nd), make the New Madrid fault line a prime candidate. Having experienced a cracked foundation on my home in Indianapolis, from a tremor that occurred along the New Madrid fault in the early 1990’s, easily convinces the author of Marion County’s earthquake potential. Looking at the results of the theoretical Computer Modeling of a 7.5 Rickter Earthquake in the Wabash Valley found in Appendix A shows the potential for disaster.

Pike Township contains Eagle Creek Reservoir. Although this is a flood-controlled reservoir, there does exist a flood zone and flowage easement (T. Tracy, personal communication, November 6, 2000). Artificial structures such as dams, do fail (Zeleny, 1983, p. 238). This, coupled with the unpredictability of Mother Nature makes flooding a potential danger.

Civil disorder is the deliberate and public refusal to obey the law and has been practiced for hundreds of years (Zeleny, 1983, p. 607). As pointed out by Gratz (1972), the ability to recall personnel was clearly demonstrated in the 1960's (p. 183). To date the civil disorders of 1969 is the only time Indianapolis Fire Fighters have been recalled (H. Tibbetts personal communication, November 12, 2002). Civil disorders can happen anywhere, including Pike Township.

The threat of terrorism. After September 11, 2001, with the collapse of the World Trade center, this is no longer just a threat, but a reality. As noted by Shobert (2002), continued attacks on US soil is longer a matter of if, but when the next one will occur (p. 1). Indianapolis could be a potential target ("Analysis and Trends," 2002). Having witnessed the World Trade Center disaster and having responded to the site, without the resources of a New York City (11,000 firefighters and 40,000 police officers) it is easy to see that resources for most jurisdictions would be overwhelmed.

But disasters, natural or man-made are not the only major emergency facing the Fire Service in general and Pike Township in particular. With the construction of larger and taller buildings the possibility of large resource intensive fires is ever present. With the concentration of industrial facilities into large business and industrial complexes, the potential of large chemical leaks and releases also exists. Also, having the largest municipal park in the nation presents a potential wildfire hazard. These potential situations along with responsibilities to mutual aid departments ("Marion County Mutual Aid Agreement," 2001), makes Pike Township resources constantly susceptible to depletion.

Coleman (1988), Kramer (1992), and Landesman (1995) all concur that at some point in an emergency, the situation will require more personnel. Fire departments may respond by using mutual aid, thus impacting the staffing of a neighboring department or implement the recall of its

own resources to supplement its needs. In either case, the normal staffing strategy of the department will be insufficient to meet the magnitude of the need (Smith, 1990).

Prior to notification, a determination must be made as to what specific type, or numbers of resources are needed. All eight of the Operating procedures reviewed (Appendix C) identified the need for varied levels of response. This most common levels identified among Fire agencies is a level for recalling specific persons or teams, a level for recalling a single shift, and a level for total personnel recall.

Once the level of recall is determined, notification is then addressed. Telephone contact is the most recognized method to contact off-duty personnel. Options addressed in the Fire Officers Guide to Disaster Control (1992) include automatic dialers, public radio, and television (p. 101). Landesman (1996) points out that telephone, fax, and beeper numbers should be noted and updated on a regular basis (p. 47). Fifty percent of the procedures reviewed identify the need to maintain a callback list. Fifty percent also use radio and/or television media announcements to supplement their callback efforts. For the local police and hospital agencies, personnel pagers, is the method of choice.

To determine the components for a standard operating guideline a comparison of gathered operating procedures was used. Items addressed by the various operating procedures included: (a) authority to recall personnel, (b) levels of recall, (c) recall priority, (d) mandatory reporting directive, (e) recall list maintained, (f) compensation, (g) use of media, (h) staff responsibilities, (i) personnel staging location, (j) station clothing requirement, (k) personal food requirement, (l) use of forms, (m) dismissal/termination. These items correspond with those identified in the Fire Service Emergency Management Handbook for inclusion into a detailed written set of procedures. (International Association of Fire Chiefs, 1985, p. 86).

The organizational implications of this research indicate that the Pike Township Fire Department does need to address the issue of emergency personnel recall. The department does need to develop a Standard Operating Guideline. A simple adoption of the guidelines provided by Fort Worth Fire Department or Orange County Fire/Rescue Dept would be easy. However those guidelines were developed for much larger departments with considerably more resources and staff. A Standard Operating Guideline utilizing the eight departments reviewed as a guide was developed and may be found in Appendix D. Once approved, appropriate sections (i.e. employee recall list) should be reviewed annually. The entire guideline should also be reviewed periodically. As a final step, all department personnel should be made aware of the procedure, and trained for the role they may have in its implementation.

### **RECOMMENDATIONS**

The problem is that Pike Township Fire Department is unprepared to manage a total personnel recall effectively. The data collected supports the recommendation that a procedure be developed to prepare the department and its personnel prior to the occurrence of an emergency dictating an increased level of response. This procedure should be in the form of a Standard Operating Guideline developed in the format of the user. The SOG should address (a) purpose, (b) recall description, (c) staff responsibilities, (d) notification, (e) reporting information, (f) compensation, and (g) demobilization. Once the SOG is developed, a process of review would be started which might include the department Command Staff, Union Representatives and Shift Commanders. After review and revision, the SOG would be submitted to the Fire Chief for review and approval.

My recommendation to the Fire Chief of the Pike Township Fire Department will be to approve and implement the revised form of the Standard Operating Guideline found in Appendix D.

## REFERENCES

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## APPENDIX A

## The Fujita Scale

<b>F-Scale Number</b>	<b>Intensity Phrase</b>	<b>Wind Speed</b>	<b>Type of Damage Done</b>
<b>F0</b>	<b>Gale tornado</b>	<b>40-72 mph</b>	<b>Some damage to chimneys; breaks branches off trees; pushes over shallow-rooted trees; damages sign boards.</b>
<b>F1</b>	<b>Moderate tornado</b>	<b>73-112 mph</b>	<b>The lower limit is the beginning of hurricane wind speed; peels surface off roofs; mobile homes pushed off foundations or overturned; moving autos pushed off the roads; attached garages may be destroyed.</b>
<b>F2</b>	<b>Significant tornado</b>	<b>113-157 mph</b>	<b>Considerable damage. Roofs torn off frame houses; mobile homes demolished; boxcars pushed over; large trees snapped or uprooted; light object missiles generated.</b>
<b>F3</b>	<b>Severe tornado</b>	<b>158-206 mph</b>	<b>Roof and some walls torn off well constructed houses; trains overturned; most trees in fores uprooted</b>
<b>F4</b>	<b>Devastating tornado</b>	<b>207-260 mph</b>	<b>Well-constructed houses leveled; structures with weak foundations blown off some distance; cars thrown and large missiles generated.</b>
<b>F5</b>	<b>Incredible tornado</b>	<b>261-318 mph</b>	<b>Strong frame houses lifted off foundations and carried considerable distances to disintegrate; automobile sized missiles fly through the air in excess of 100 meters; trees debarked; steel reinforced concrete structures badly damaged.</b>
<b>F6</b>	<b>Inconceivable tornado</b>	<b>319-379 mph</b>	<b>These winds are very unlikely. The small area of damage they might produce would probably not be recognizable along with the mess produced by F4 and F5 wind that would surround the F6 winds. Missiles, such as cars and refrigerators would do serious secondary damage that could not be directly identified as F6 damage. If this level is ever achieved, evidence for it might only be found in some manner of ground swirl pattern, for it may never be identifiable through engineering studies</b>

## APPENDIX B

**Indianapolis-Marion County  
Earthquake Damage HAZUS Computer Modeling  
7.5 Richter Earthquake of Wabash Valley Fault**

<b>Casualties</b>	
<b>Injured no hospitalization required</b>	<b>73,000</b>
<b>Injured non life threatening</b>	<b>14,000</b>
<b>Injured life threatening</b>	<b>2,000</b>
<b>Fatalities</b>	<b>1,800</b>
<b>Property Damage</b>	
<b>Destroyed structures</b>	<b>49,000</b>
<b>Extensively damaged structures</b>	<b>55,000</b>
<b>Moderately damaged structures</b>	<b>81,000</b>
<b>Slightly damaged structures</b>	<b>40,000</b>
<b>Displaced households</b>	<b>87,000</b>
<b>Persons needing short term sheltering</b>	<b>60,000</b>
<b>Destroyed bridges</b>	<b>16%</b>
<b>Extensively damaged bridges</b>	<b>16%</b>
<b>Moderately damaged bridges</b>	<b>5%</b>
<b>Slightly damaged bridges</b>	<b>14%</b>
<b>Total amount of debris to be removed</b>	<b>21,286,000 tons</b>
<b>Fires</b>	<b>134 simultaneous fires Day 0</b>
<b>Economic Losses due to Property damage</b>	<b>\$20,650,000</b>
<b>Economic Losses due to Business interruption</b>	<b>\$8,000,000</b>

<b>Functionality</b>						
	<b>Day 0</b>	<b>Day 1</b>	<b>Day 3</b>	<b>Day 7</b>	<b>Day 30</b>	<b>Day 90</b>
<b>Households without water</b>	<b>243,000</b>	<b>241,000</b>	<b>236,000</b>	<b>226,000</b>	<b>128,000</b>	<b>0</b>
<b>Households without electricity</b>	<b>298,000</b>	<b>286,000</b>	<b>257,000</b>	<b>186,000</b>	<b>21,000</b>	<b>0</b>
<b>Communication facility functionality (phone, radio, TV, public safety radio, etc.)</b>	<b>15%</b>	<b>34%</b>	<b>52%</b>	<b>62%</b>	<b>86%</b>	<b>97%</b>
<b>Hospital beds available out of total existing</b>	<b>0%</b>	<b>0%</b>	<b>1%</b>	<b>2%</b>	<b>8%</b>	<b>24%</b>

## APPENDIX C

	A	B	C	D	E	F	G	H	Total=8
Authority to recall	x	x	x	x	x		x	x	7
Levels of recall	x	x	x	x	x	x	x	x	8
Recall priority			x						1
Reporting Mandatory			x	x		x			3
Recall list maintained	x			x		x	x		4
Compensation		x		x	x				3
Use of Media	x		x	x			x		4
Staff responsibilities			x	x			x	x	5
Personnel staging location	x		x	x	x		x	x	6
PPE requirement	x		x	x				x	4
Station clothing requirement				x					1
Personal food requirement				x					1
Use of Forms			x				x	x	3
Dismissal/Termination				x			x		2

Washington Twp. F.D., Indianapolis, IN Column A  
 Bay County Emergency Services, FL Column B  
 Fort Worth F. D., Ft. Worth, TX Column C  
 Orange County Fire Rescue Dept., FL Column D  
 Omaha F.D., Omaha, NE Column E  
 Richardson F. D., Richardson, TX Column F  
 St. Vincent Hospital, Indianapolis, IN Column G  
 Indianapolis Police Dept., Indpls, IN Column H

## APPENDIX D

### Pike Township Fire Department Standard Operating Guideline Volume 4, Chapter 11

#### 11.1 Purpose

To establish procedures for the recall of off-duty personnel

#### 11.2 Recall Descriptions

Personnel will be recalled to duty based on department need according to the following descriptions:

11.2-1 Limited Recall—the recall of specific individuals, specialized teams, or companies from one or more shifts.

11.2-2 Single Shift Recall—the recall of the oncoming shift or the holdover of the currently working shift.

11.2-3 Total Department Recall—the recall of all available department personnel.

#### 11.3 Staff Responsibilities

##### 11.3-1 Chief of the Department

11.3-1.1 The Fire Chief may authorize any level of recall.

##### 11.3-1.2 Responsibilities

- a. Overall management of Emergency
- b. Management of Staff

##### 11.3-2 Chief of Operations

11.3-2.1 The Chief of Operations may authorize a limited recall.

##### 11.3-2.2 Responsibilities

- a. Determination of reporting information specifics
- b. Management of recalled operational resources
- c. Management of specific incident site

##### 11.3-3 Public Information Officer (PIO)

##### 11.3-3.1 Responsibilities

- a. Development of information to be used by radio and/or television for recall of department personnel
- b. Distribution of announcement to local media stations

##### 11.3-4 Chief of Safety/Training

##### 11.3-4.1 Responsibilities

- a. Overall safety of personnel
- b. Management of specific incident site

##### 11.3-5 Chief of Support Services

### 11.3-5.1 Responsibilities

- a. Providing logistical support to recalled personnel
- b. Deployment of support services resources

### 11.3-6 Shift Commanders

#### 11.3-6.1 Responsibilities

- a. Management of specific incident sites
- b. Management of recalled operational resources

### 11.3-7 Company Officers

#### 11.3-7.1 Responsibilities

- a. Management of assigned personnel
- b. Documentation of on-duty hours

### 11.3-8 Designated Administrative Assistants

#### 11.3-8.1 Responsibilities

- a. Maintaining an up-to-date recall information list
- b. Personnel notification

## **11.4 Notification**

### 11.4-1 Pager Notification

- a. Department Command Staff is to be notified for any department recall.
- b. Staff personnel may be contacted by alpha numeric pager through MECA

### 11.4-2 Telephone Notification

Personnel will be contacted individually by telephone or cell phone

### 11.4-3 Notification by Media

- a. Media notification is to be used only when a single shift or total department recall is authorized.
- b. The local media, (radio and/or television) is to be contacted by the department PIO with the appropriate information.

## **11.5 Reporting information**

### 11.5-1 Where to report

- a. Location to report
- b. Route to use if conditions warrant.

### 11.5-2 When to report

When notified the following information will be provided:

- a. Time frame in which to report
- b. Expected duration

### 11.5-3 What to bring

When notified the following information will be provided:

- a. Personal Protective equipment to bring
- b. Whether PPE should be retrieved from duty station prior to reporting
- c. What station wear to bring and how much
- d. How much food to bring and what type (i.e. non-perishable)

### **11.6 Compensation**

Personnel will be compensated according to special duty rules set forth in department guidelines.

### **11.7 Demobilization**

#### 11.6-1 Release from duty

Personnel will be released from recall duty as soon as the emergency is terminated or is warranted.

#### 11.6-2 Reporting for Regular Duty

Upon release personnel will be informed as to when they are to resume regular duty.