

**DEVELOPMENT AND IMPLEMENTATION
OF A
FIRE DEPARTMENT
COMPREHENSIVE RISK MANAGEMENT PROGRAM**

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An applied research project submitted to the National Fire Academy
as part of the Executive Fire Officer Program

January 1998

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ABSTRACT

Twenty-five years ago, in 1972, the Redmond Fire Department existed in a far more simplified environment than what existed in 1997. In 1997, the environment included; expanded federal laws, regulatory mandates, national consensus standards and a significant increase in types of services provided to the public. With erosion of governmental immunities accelerating over the past twenty-five years, fire departments have been subjected to legal scrutiny at an increasing rate.

Unfortunately, the fire service has been slow to adopt and implement accepted professional risk management practices. Due to limited professional expertise, increasing responsibilities, and limited resources in the form of time, personnel and budget dollars many departments have failed to adopt and implement a comprehensive risk management plan.

The research contained in this paper outlines the components and factors influencing comprehensive risk management. An outline of the risk management process identifies five necessary steps to develop, implement and evaluate a program. Seven elements that comprise a program are reviewed. An listing of loss potentials present in the fire service demonstrates the significant challenges a department faces in managing risk. Discussion of private industry approaches to risk management provides a comparison that benefits a department looking for success examples. Challenges faced by a department initiating a risk management program demonstrate the enormity of effort required to be successful in managing the program. A risk program development overview provides guidance for administrators considering moving forward with development of a comprehensive program.

Through the use of descriptive and evaluative research and observations related to private industry and government risk management practices, an overview of successful and unsuccessful strategies is presented. Literature review of risk management theory, principles and practice provides a framework for understanding the importance of effective risk management and consequences of inappropriate or deficient application of management principles. An evaluation of surveys completed by training and safety officers throughout the State of Washington will analyze the following questions:

1. Do organizations have current, written, risk management programs?
2. Are annual risk management audits conducted?

If yes, who conducts the audit? If no, when was the last audit performed?

3. Which of the listed items are the component parts of the audit; i.e., currency of policies and procedures, review of accident reports, accident investigation procedures outlined and etc.?
4. If listed component parts of an audit, identified in question #3, are not completed what listed obstacles prevent the organization from completing the audit?
5. Are fire department injury rates increasing or declining over the past 5 years?
6. Are fire department property loss rates increasing or decreasing over the past 5 years?
7. Have fire departments been involved in litigation within the past 5 years?
8. If litigation has occurred, what type of behavior, organizational or individual, was involved?

The ten question survey was mailed to 68 training and safety officers throughout the state of Washington, primarily within King County. All departments are subject to similar regulatory requirements and interpretation of accepted standards of care within the legal environment.

Results of the survey show that a minority of departments have current, written, risk management programs or conduct annual risk audits. A majority of departments have either never conducted an audit or do not know when the last audit was conducted. For those agencies that conduct partial audits a large majority complete assessment of risk potentials that are safety standard or state auditor regulatory related. Reasons given for not completing annual comprehensive audits are evenly divided among; lack of time, lack of personnel, no defined process or criteria, and limited technical expertise. Injury frequency and property loss rates are about evenly split between agencies with increasing rates and decreasing rates. Two departments indicated they were involved in litigation within the past five years.

Recommendations developed as a result of literature review and evaluation of the research, focus on the Redmond Fire Department developing and implementing a comprehensive risk management program policy. The program will be developed in a collaborative manner with substantial department-wide participation and input from the City's Risk Manager. Finally, a thorough analysis will be conducted to determine the feasibility of hiring a full-time safety and risk manager on a regional basis. Potential positive impacts may include having an individual who can develop professional skills and coordinate development of common policies, procedures, documentation system and training. By the latter months of 1998, the Redmond Fire Department should be well on it's way toward being proactive in their risk management practices.

INTRODUCTION

The City of Redmond, Washington Fire Department historically has lacked a comprehensive risk management program auditing process to ensure compliance with regulatory requirements, conformity to accepted national consensus standards and assessment of risk potentials. Additionally, the Redmond Fire Department has provided limited risk management training for its officer personnel. Responsibility for the administration of risk management has been shared by individuals who do not have adequate time, expertise or resources to effectively manage risk. The failure to conduct a regular and timely risk audit by trained individuals has placed the City of Redmond and its officers in a position of significant potential liability for regulatory, civil and criminal sanctions. Documentation of the department's compliance with applicable Washington Administrative Codes related to safety and efforts to comply with national consensus standards in previous years, through the present, have been significantly lacking. The department's hit and miss approach to risk management has resulted in many deficiencies. Among the most critical deficiencies are; out of date or lacking policies and procedures, incomplete and deficient documentation of information related to emergency incidents, incomplete records related to personnel injuries and damage to department property, and inconsistent training records.

As a critical element of a department's overall management structure the risk management process must be understood and practiced regularly to avoid substantial, and potentially devastating, economic and non-economic losses. Compliance with regulatory requirements, provision of comprehensive policies and procedures and the provision of a safe and healthful work environment have been challenges the Redmond Fire Department have faced

in recent years. Budgets not keeping pace with inflation and the complexity of the responsibilities assumed by the fire service have proven to be difficult obstacles to overcome when managing risk within the Redmond Fire Department. Study of risk management principles, a comparison of private industry practices with government practices and evaluation of different approaches to management of fire service risk provide opportunities for the Redmond Fire Department to develop a strategy for improving its risk management process. Additionally, upon review of the complexity of risk management requirements an argument for full time assignment of a staff level person to a risk management position is evaluated.

Through the use of descriptive and evaluative research, and observations related to private industry and government risk management practices an overview of successful and unsuccessful strategies is presented. Literature review of risk management theory, principles and practice provides a framework for understanding the importance of effective risk management and consequences of inappropriate or deficient application of management principles. An evaluation of surveys completed by training and safety officers throughout the State of Washington analyzed the following questions:

1. Do organizations have current, written, risk management programs?
2. Are annual risk management audits conducted?

If yes, who conducts the audit? If no, when was the last audit performed?

3. Which of the listed items are the component parts of the audit; i.e., currency of policies and procedures, review of accident reports, accident investigation procedures outlined and etc.?
4. If listed component parts of an audit, as identified in question #3, are not completed what listed obstacles prevent the organization from completing the audit?

5. Are fire department injury rates increasing or declining over the past 5 years?
6. Are fire department property loss rates increasing or decreasing over the past 5 years?
7. Have fire departments been involved in litigation within the past 5 years?
8. If litigation has occurred, what type of behavior, organizational or individual, was involved?

BACKGROUND AND SIGNIFICANCE

Twenty years ago, in 1977, the fire service delivered basic public safety emergency services within their respective jurisdictions. Primarily, fire departments performed fire suppression, prevention, and, in many parts of the nation, emergency medical activities. Today's fire service delivers a more comprehensive assortment of emergency and non-emergency services. Hazardous materials response, rescue services (technical rope, water, trench, confined space, urban search and rescue, machinery and vehicle), disaster preparedness, and advanced life support emergency services are examples of new or expanded services delivered to the public. Though response to the above types of incidents occurred prior to formal adoption of responsibilities associated with the activities, little training specific to the necessary skills or adoption of standards were present. Fire departments were given great latitude to respond and perform delivery of emergency services with relative impunity and little accountability. Injuries, property damage, fatalities and operational errors were considered part of the "cost of doing business".

Today's fire service is held to a much higher standard of care in the performance of their assumed responsibilities. Federal and state regulatory requirements are numerous and comprehensive. Safety standards designed to create a safer and more healthful work

environment for firefighters have become increasingly stringent in recent years. Hazardous material incidents responded to by fire departments must be prepared for and conducted according to requirements outlined in the Code of Federal Regulations. Emergency medical care training and standards of care are influenced to some degree by requirements developed by the federal Department of Transportation. A proliferation of national consensus standards developed by the National Fire Protection Association are referenced, and given the weight of law, in the 296-305 WAC (Washington Administrative Code), Safety Standards For Firefighters.

Fire department accountability to federal and state laws and national consensus standards are becoming more the norm in recent years. In King County, Washington a number of incidents, both emergency and non-emergency have resulted in regulatory and civil sanctions against both department organizations and department personnel. In 1996 the State of Washington Department of Labor and Industries cited the Seattle Fire Department with a fine of \$41,000 as a result of a fire involving the deaths of four firefighters. The citation included the following violations: Failure to notify firefighters of an arson threat against a structure, willfully obstructing the duties of a safety officer, failure to ensure firefighters activated personal safety devices, failure to have adequate pre-plans of a high risk structure, and failure to purchase fire-resistant hoods (Batsell, 1997). In August of 1995, the Federal Way, Washington Fire Department announced disciplinary actions against four fire department personnel for making lewd comments related to the decontamination of female police officers. The involved police officers were provided \$105,000 settlements each after filing \$2.5 million lawsuits (Lat, 1996).

Through 1995 – 1997, the State of Washington Department of Labor and Industries cited 14 fire departments throughout Washington for violations of safety standards. The number of citations totaled 171 and included the following violations: Failure to establish a safety program outline, use of an aerial ladder device in close proximity to high tension power lines, failure to appropriately manage an incident, failure to follow-through with safety violation corrections and a number of other examples. Total fines levied were \$186,840 between 1995 and 1997. 1,010 workman's compensation claims for on-duty injuries were filed for the period of 1995 – 1997 with a total cost of \$2,058,000. (State of Washington Department of Labor and Industries, 1998).

Personal claims against cities, fire districts are difficult to ascertain due to confidentiality agreements and the desire for governmental jurisdictions to avoid publicity.

Unfortunately, most fire departments have not been provided the resources, in personnel, or provision of expertise to effectively and comprehensively manage risk. Training opportunities for risk management are extremely limited and focused on emergency incident risk reduction. Risk management curriculum offerings at the Bachelor's degree level are limited. Not until 1996 was any material developed specific to risk management through the United States Fire Administration. The only courses the author has found are offered through the King County Fire Training Officers "Officer Development Academy" and a course offering at Southern Illinois University. Considering that protection of an organization's assets is one of the most important responsibilities assumed by a fire officer within the management process it is imperative that more emphasis be placed on educating personnel on risk management theory and practical application.

The development of an educational process for fire service risk management and assignment of specific risk management responsibilities to an individual within a department or consortium of departments are topics directly related to Executive Fire Officer Program's "Executive Leadership" course.

LITERATURE REVIEW

Risk Management Process, An Overview

An accepted definition of risk management is outlined in Risk Management Practices In The Fire Service; "any activity that involves the evaluation or comparison of risks and the development of approaches that change the probability or the consequences of a harmful action" [Federal Emergency Management Agency (F.E.M.A.), 1996]. A more simplified description is "a process to manage uncertainty" [International Association of Fire Chiefs (I.A.F.C.), 1987]. Harmful actions may be described as any activity that results in injury or damage to property, persons, or the environment.

Included in any discussion of the risk management is the process that includes; identification and evaluation of risks and the identification, selection, and implementation of loss control measures that may alter risk (F.E.M.A., 1996).

Fire department asset protection is a primary responsibility of fire service managers. Assets such as personnel, facilities, equipment, finances, and public goodwill are subject to injury, damage or erosion. Significant losses to any combination of the above can adversely impact the ability for a department to accomplish it's mission, protection of life and property.

The risk identification step necessitates an inventory of potential losses to an organization. Losses can be categorized as property, budgetary, liability and personnel (I.A.F.C., 1987). Potential problems or activities leading to losses must be listed. Methodologies used to list potential risks include the use of an audit process to identify deficiencies in engineering, education, and enforcement, and the review of records, reports and past experiences (F.E.M.A.).

Once risk potential identification has been accomplished the risk evaluation step must be accomplished. For each potential loss identified, the following questions must be asked: What is the potential severity of the loss, giving a rating from low to high for injury, damage, or economic potentials? What is the potential frequency of occurrence, giving a rating from low to high? The risks with low severity/high frequency and high severity/high frequency potentials are typically given a higher priority for developing control methods to minimize adverse impacts on the organization (I.A.F.C., 1987).

Risk control techniques include exposure avoidance, loss prevention, loss reduction, segregation of exposures, and contractual transfer (I.A.F.C.). Actions by a fire department to avoid exposure to a risk involve not taking on certain responsibilities or denying personnel from engaging in certain types of activities. Prevention activities are related to efforts used to reduce potential severity and frequency of occurrence through education, engineering, and enforcement. Such efforts may include inspections, maintenance, and training activities. Loss reduction measures are utilized to reduce the severity of loss in the event of a risk incident occurrence. Typically, engineering measures are designed for loss reduction, such as restraint devices, thermal barriers, and P.A.S.S. devices.

Segregation of exposures involves minimizing exposure of assets to a single adverse event. Fire department use of rapid intervention teams is a recent example of segregation of exposure. In the event of a partial structural collapse with trapped firefighters, a contingency plan for rapid rescue with standby resources is in place.

Contractual transfer of risk is a method used to avoid direct responsibility for risk incident consequences. Through a contract to an outside entity for services, the fire department transfers liability and other potential losses from itself to the other entity. Insurance coverage for property loss, workman's compensation, and liability are common examples of contractual transfer of risk. Selection and management of appropriate insurance is a primary responsibility of professional risk managers.

Risk management program monitoring and evaluation comprise those activities used to determine how effectively the program is functioning and to assess and recommend necessary changes (F.E.M.A.). Safety and financial audits, inspections, reports, quality assurance programs, and interviews are examples of evaluation methodologies.

William F. Jenaway in his text "Fire Department Loss Control" (1987) identifies seven elements necessary for an effective risk management, or loss control, program. Integrated elements of management leadership, assignment of responsibility, training, personal acceptance of responsibility, medical system, record keeping, and maintenance of safe working conditions are essential for the protection of assets. Each of the elements have specific sub-elements that comprise a comprehensive risk management program. Sub-elements such as policies and procedures, job instruction, placement medical exams, accident investigation, protective

equipment, and many other specific activities, form an inter-related procedural framework necessary to conduct effective risk management.

Risk Potential

Potential for risk incidents (losses) abound in the fire service. Injuries to personnel may occur in a number of environments whether within the fire station, on the drillground, while performing inspections, or fire suppression activities. Damage to department property occurs during non-emergency and emergency situations. Financial losses are a possibility as a result of poor financial administration, liability for actions of personnel, and loss of equipment through theft or misappropriation. Other financial losses can be attributed to increases in workman's compensation premiums or rental to replace damaged equipment. Liability potentials are increasing at a substantial rate with erosion of governmental immunities, increased responsibilities assumed by departments and an increasingly litigious society (Hewitt, 1997).

Consequences of Risk Incidents

Any risk incident will result in unintended consequences, usually adverse. Injuries or fatalities to department personnel or civilians are obviously the most significant and severe.

Damage or destruction to critical department resources may impair a department's ability to respond to emergencies in a timely and effective manner.

Negligence in the performance of fire department responsibilities impact the public's perception of their department's competency and may diminish future financial support. Negligence also will open the liability door and expose the organization to significant potential financial loss in

settlement or court judgment costs. Financial costs will be associated with any loss incurred by the department as a result of a risk incident ranging from direct medical costs to productivity costs for time allocated to investigation and documentation.

Losses often are categorized as direct or indirect. Direct losses are usually the immediate and most visible loss; i.e., the burn injury to a firefighter. Indirect losses would be the cost of covering the vacant position, training a person to assume a specialized skill possessed by the firefighter, and paying a Labor and Industries fine. Indirect costs are frequently never identified in statistical reports related to accidents (Jenaway, 1987).

Though not frequently utilized, criminal charges against employers resulting from deaths of employees are a recent emerging trend. When an officer of the employer knows of unsafe conditions, knowingly neglects the unsafe conditions and deliberately conceals the unsafe conditions from employees, a strong potential for criminal prosecution exists (Schneid, 1995).

Other consequences include deteriorating morale, lost productivity, emotional and psychological distress, and increased regulatory oversight.

Private - Vs. - Fire Service Risk Management Practices

National Safety Council statistics show that 1983 injury rates, based on a ratio of incidents involving days away from work per year, for the fire service were significantly above those of the all - industry classification (chemical, aerospace, automotive, and etc.). All - industry rates were 2.9 days away from work per incident, public employers 5.95, and the fire service with a rate of 7.27. Fire service compared to all-industry performance in 1983 was only slightly improved over 1975 statistics (I.C.M.A., 1985). Extensive research by the author

has not found any information to indicate that fire service performance has improved substantially. In fact, between 1986 and 1995 the number of injuries per 1,000 fires and per 1,000 non-emergency incidents have remained fairly constant (Wilder, 1997).

The National Safety Council, in the October 26, 1993 issue of Financial World profiled factors related to outstanding safety programs as practiced by ten national corporations. A consistent theme centered on safety being a personal commitment of the Chief Executive Officer, a practiced core cultural value, and a moral obligation of the organization. Commitment begins with training of all employees on appropriate workplace behaviors, proper performance of job responsibilities and their obligation to be participants in the overall safety program. Quality of the safety program is directly correlated to quality of the product produced with well trained employees and well maintained equipment and facilities producing quality products. Companies with successful safety programs set high expectations, provide appropriate resources and hold managers and employees highly accountable for their actions. Proactive recognition that specialized expertise was necessary to provide an effective organizational risk management framework was evidenced by all the referenced companies having high level managers given responsibilities for risk management. Data collection, analyzing, and dissemination corporation wide contributed to program success. Other contributing factors to successful safety programs included research, constant assessment of potential risks, recognition for successful performance, and constant communication and reinforcement of the company's commitment to safety (Rappleye, 1993)

The above described companies have a demonstrated ability to effectively implement successful risk management programs. The Consumers Power Corp., an electric utility

company, went 7.2 million man-hours without a lost-time accident and averages one lost-time accident per month for a 10,000 person workforce. Midas International in 1978, at one plant alone, experienced 176 accidents and averaged \$907,000 workman's compensation costs per year, company wide. By 1987, the accident experience had lowered to 3 accidents at the one plant and workman's compensation costs reduced to \$308,000 per year. Over the nine year period, an estimated savings of \$6 million was experienced. The motivation behind private industry investment in safety is well summarized by John Moore, CEO of Midas International; "...I really think it is irresponsible if you are employing a lot of people not to have an active safety program. There is the moral obligation. But there are also real financial incentives. In today's competitive environment, if any manager has a factor like safety, which is controllable, and he doesn't take advantage of it, he is going to get clipped by his competitor. Guaranteed." (Rappleye, 1993).

Risk Management Challenges Faced By Fire Service Administrators

Since the 1970's the fire service has formally adopted a significant number of additional responsibilities beyond traditional fire suppression and prevention activities. Assumption of hazardous materials response and code enforcement, rescue services (technical rope, confined space, dive and swift water, trench, building collapse, and heavy equipment), public education, disaster preparedness and emergency medical services are among the many additional services provided over the last twenty-five years. Accompanying the additional services has been an increasing professionalism in the management of fire departments and delivery of services. College curriculums specific to the fire service, increased training quality and opportunities,

educational requirements and development of national consensus standards have advanced the professionalism of the fire service (Hewitt, TD., 1997). An increasing emphasis toward regulatory control over fire department related services by governmental agencies is a trend that has evolved over the past twenty years.

All of the above described improvements related to professionalism within the fire service and regulatory mandates have served to increase the standard of care expected of the fire service by citizens and the judicial system. An inference can be made that the above factors serve to expand the duties accepted by courts as owed by the fire service to the public they serve (Hewitt, TD., 1997). Hence, the fire service is increasingly subject to liability claims due to expanding decisions from the courts that erode statutory immunity protections provided to fire departments. Departments are being held legally accountable for their acts or omissions (negligent actions or failure to act appropriately). Included is the responsibility for a department to manage the level of risk within the workplace, provided that the risk is reasonably predictable (F.E.M.A., 1996).

In addition to NFPA standards, accepted emergency incident practices, investigative practices, and other operational requirements, fire administrators must be knowledgeable of federal and state regulatory requirements that are not directly related to delivery of services to the public. The Civil Rights Act, Title VII of 1964 and the 1991 amendments deal with discrimination in most settings of the fire department including the hiring, firing, promotion, treatment, and discipline of employees. Complaints, violations and enforcement related to the Civil Rights Act are under the umbrella authority of the Equal Employment Opportunity Commission [(EEOC) (Schneid, 1995)].

1990 introduced new responsibilities with the adoption of the Americans With Disabilities Act (ADA). ADA requirements impacts decisions within the department related to hiring, worker's compensation, restricted duty programs, facility construction or modification, and performance (Schneid, 1995).

Fair Labor Standards Act (FLSA), amended in 1974, impacts compensation of employees and provide guidelines for determining whether employees are exempt from certain requirements. Generally, FLSA specifies minimum wages and hours permitted to be worked before overtime payment is required. Requirements are outlined that identify what constitutes on-duty time; i.e., outside attendance of training, travel to and from assignments, and standby time (Schneid, 1995).

Family and Medical Leave Act requirements are applicable for organizations with over 50 employees. The Act provides for unpaid leave of absence for employees who have family members, as defined by the Act, suffering serious illness conditions, involved with childbirth, or placement / adoption of a child. Certain benefits are to be maintained throughout the allowable leave of absence (Schneid, 1995).

In many states labor relations are regulated by a state agency. In the state of Washington the Public Employment Relations Commission (PERC), through the Revised Code of Washington (law), governs the relationship between the employer and employees for negotiations on issues involving wages, hours and working conditions.

Departments involved with enforcement of building and fire codes and the investigation of fires must be well versed with procedural law related to police powers. Policies and procedures specific to collection and storage of evidence, interrogation of witnesses or

suspects, denying access to an investigation, and documentation of all events must be in place and practiced (Schneid, 1995).

Fire departments within the state of Washington must comply with requirements contained within 296-305 Washington Administrative Code (WAC), Safety Standards for Firefighters; 296-24 WAC, General Safety Health Standards; 296-62 WAC, General Occupational Health Safety Standards; and applicable requirements within 296-155 WAC, Safety Standards For Construction Work. Requirements within 296-305 WAC, Safety Standards For Firefighters make numerous references to NFPA standards, in effect giving the standards the weight of law.

Fire Districts, independent political bodies, within Washington are required to comply with the requirements outlined in the Revised Code of Washington. Requirements include financial reporting, open meeting requirements, collection and storage of data, and the installation of officers.

Sexual harassment issues are increasing in frequency and severity within the fire service. Significant impacts upon the organization may be incurred if sexual harassment is allowed to prevail. Economic liability, morale, lost productivity, destruction of a team oriented environment, and loss of public confidence are a few examples of what can result with a valid sexual harassment complaint. Managers must be aware that an organization may be liable for the acts of; 1) superiors, managers, and agents, 2) employees, 3) non-employees, and 4) those not harassed - favoritism (Wilder, 1997)

Violence in the workplace, terrorism preparation and response, computer and information security, and the evolving changes in the nation's health care systems are a few more

examples of challenges facing fire department administrators.

Risk Management Program Development

Each fire department must develop a risk management program custom tailored to meet the demands of the environment present. Basic managerial processes work well to build the risk management framework; planning, organizing, controlling, and leading. The process must start at the top of the organizational structure. A strong, passionate commitment from the department's leadership communicated to the employees sets the stage for a successful risk management program.

Administration of the risk management program must be undertaken subsequent to a deliberate and well reasoned executive level decision making process. Formulation of an organization risk management policy provides an overall goal, establishes executive level commitment, and outlines responsibilities for department personnel. Selection of a risk manager provides an opportunity to assign specific responsibilities to an individual with present or potential expertise and to also assign accountability. Allocation of identified necessary resources to implement and conduct the program includes: 1) Financial support for equipment, training, outside expertise, risk financing, monitoring, and evaluative tools. 2) Personnel resources to conduct audits, develop policies, conduct research, and establish appropriate committees such as safety. 3) Authority to affect necessary and agreed to changes in customary methods of conducting organizational business. Accountability, possibly the most critical element of the administrative component of risk management, ensures the organization and individuals with risk responsibilities are on course to achieve stated goals and objectives.

Additionally, positive and progressive actions must be undertaken to enforce and correct deviations from established organizational expectations (ICMA, 1985).

Selection and support of a risk manager should be undertaken as soon as possible after the policy decision to adopt and implement a comprehensive risk management program has been made. Four alternative options for determining who should administer a program are reviewed in “Risk Management Today: A How-to Guide for Local Government” (ICMA, 1985). Option one involves hiring a professional risk manager, an option usually associated with larger jurisdictions. A second option expands the duties held by the organization’s safety officer. This option has particular appeal for small to mid-sized jurisdictions as a natural progression from safety risk management to include all aspects of risk management. The third option is the joint employment of a safety/risk manager by several jurisdictions. This option is highly recommended for consideration due to the benefits of accessing a full-time professional at a fraction of the cost required to hire a risk manager individually. A fourth, and least desirable, option is using a risk management committee approach. With the complexities associated with administering a comprehensive risk management program and necessary interactions with numerous outside individuals, a committee approach is subject to significant confusion. Examples of typical functions assigned to a risk manager and qualifications necessary for a risk manager are listed in Appendixes B and C, respectively (ICMA, 1987).

Charles K. Coe in the text “Understanding Risk Management” (1980) outlines, in a simplified format, steps necessary to implement and conduct a risk management program. Necessary preconditions include; 1) an effective organization (managerial structure, assignment

of risk responsibilities, and policies and procedures), 2) access to professional advice, 3) formal statement of policies, and 4) effective record keeping.

The first step encompasses the following actions necessary to identify all potential risks. First identify types of potential risk (property, personnel, professional liability, and emergency operations). Second, select methods for identifying the potential losses; 1) analyze documents, 2) inspect premises and facilities, 3) questionnaires, 4) analyze process flow charts, and 5) post incident critiques of risk incidents.

The second step involves controlling risks, evaluating the potential severity and frequency of risks and questioning how the potential can be eliminated or reduced. For example, can a risk be avoided, prevented, reduced or transferred to a third party?

The third step outlines the evaluation component of a risk management program. Is the administration and application of the program consistent with the risk management policy? Are goals and objectives on target? Do employees consistently follow established policies and procedures? Are completion and review of risk audits accomplished in a timely manner? Is feedback from employees solicited, reviewed and acted upon on a regular basis?

PROCEDURES

A ten question survey was mailed to 68 training officers throughout the state of Washington (Appendix A). Self addressed stamped return envelopes were provided for the respondents. The 68 departments were selected using the following criteria; geographical dispersion throughout the state. All departments within King County (45), whether career, volunteer, or combination, were targeted. Redmond, Washington is within the boundaries of

King County and all jurisdictions within the county are subject to identical regulatory requirements. Additionally, a large majority of legal actions initiated against a jurisdiction would be filed within the King County Superior Court system. Standard of care interpretation, theoretically, should be consistent for all departments subject to legal actions. The additional 23 departments were selected based on geographical dispersion throughout the state, population served, and type of department; at a minimum, the department must have been a combination department (career/volunteer).

Questions contained in the survey were developed to solicit feedback from training and, or, safety officers specific to their department's risk management program and experiences. An assessment of whether their department had a current, written, risk management program in place was followed by a question on whether an annual risk audit is conducted. If the annual audit is conducted, who within the organization is responsible for its completion? If no annual audit is completed, when was the last time an audit was performed? A number of specific organization responsibilities, which are significant loss potentials, were listed. The respondent was asked to identify all of the listed potentials reviewed in the department's audit. If all of the listed potentials were not part of the review process, what obstacles prevented their completion? Department experiences specific to injury rates and property losses within the past five years were reviewed by questioning whether the rates were increasing, decreasing, or not known.

A question specific to a department's litigation experience within the past 5 years was followed by a listing of specific complaints prompting the litigation; i.e., harassment, discrimination, or

injuries to the public. Estimated cost of the litigation was solicited. Finally, population served by the organization and type of organization (career, volunteer, or combination) was requested.

Literature research was conducted by the author through accessing and reviewing library resources (periodicals, textbooks) and the Internet. Assistance by a paralegal was solicited to conduct litigation research through a service known as "CourtLink".

Data related to regulatory compliance specific to the 296-305 WAC, Safety Standards for Firefighters and workman's compensation claims experiences was obtained through the State of Washington Department of Labor and Industries Public Disclosure Office.

RESULTS

Thirty-two, or 47 percent, of the surveys were returned. Respondents completed the 10 questions completely and appropriately. The following is a compilation of each question listed on the survey with tabulated responses and a short summary of the results.

1. Does your organization have a current, written, risk management program?

10 Yes 22 No

With the recent, January 1, 1997, implementation of the revised 296-305 WAC, Safety Standards For Firefighters, most departments within Washington should have increased their emphasis on implementing risk management programs. An increased awareness of NFPA consensus standards should have also encouraged departments to make an effort to comply with NFPA 1500, Fire Department Occupational Health and Safety Standards which requires a formal written risk management plan for the organization. The high percentage of departments

without a written plan indicates significant deficiencies exist. Failure to have a plan subjects the department to potential regulatory sanctions.

2. Is an annual risk management compliance audit conducted?

4 Yes 28 No

Though the revised 296-305 WAC, Safety Standards For Firefighters does not mandate an annual audit of compliance a substantial risk of non-compliance exists if no annual audit is conducted. The time and personnel resources necessary to conduct an annual comprehensive risk management audit is substantial. Few departments have a surplus of personnel to assign this responsibility, and short of actual significant losses as a result of not conducting an audit there is little motivation to reallocate resources. Departments that answered yes tend to be larger, career departments.

If the answer to question #2 is yes, who performs the audit?

Training Officer	<u>1</u>	Training / Safety Officer	<u>3</u>
Safety Officer	<u>0</u>	Risk Manager (FD)	<u>0</u>
Chief Officer	<u>0</u>	Company Officer	<u>0</u>
Risk Manager	<u>0</u>	Other (identify)	<u>0</u>

(City/District)

Primary responsibility for conducting the audits are training and safety officers with assigned responsibilities for safety administration. This information is consistent with research of

fire service literature that identifies no fire department with a specialized risk manager.

Specialized safety officers are being assigned specific risk management responsibilities.

If the answer to question #2 is no, when was the last time an audit was performed?

13– 24 mo's 3, 25 – 36 mo's 0, > 36 mo's 0, Unk 15, Never 14

The high percentage of departments having never conducted audits is surprising, considering that the revised Washington State safety standards and National Fire Protection Association standards have been a highly visible and controversial issue within the state of Washington for over two years. A high probability exists that many of the “unknown” responses would be identified as “never” with more thorough research by respondents. “Unknown” may be interpreted as not having appropriate documentation, a critical element of risk management.

3. Please identify, with a check mark, all of the below listed items reviewed in your organization's risk management program audit.

16 Policy / procedures currency

12 Compliance with all mandated regulatory requirements

18 Documentation of all mandatory training

6 Review of incident documentation accuracy, completeness, timeliness (quality assurance)

18 Review of all accident reports

6 Analysis of statistical data for financial losses resulting from accidents, property losses, personnel injuries, liability claims / judgments.

- 18 Currency and completeness of department facility inspections
- 14 Currency and completeness of all department vehicle inspections, workorders, and follow-through
- 8 Assessment of occupancy inspection program including; training of inspectors, regularly scheduled inspections of all occupancies, compliance for all noted violations and recordkeeping
- 12 Documentation review for financial audits.

A trend noted in responses to this question is related to state regulatory requirements that are highly visible to fire department administrators. The 296-305 WAC, Safety Standards for Firefighters address each of the most frequent affirmative responses to options listed. Training documentation, policy and procedures review, facility inspections, , review of accident reports, and vehicle inspections are all components of the safety standards and are subject to review by the State Department of Labor and Industries. The other frequently answered questions, financial audits and incident documentation review are also subject to potential county or state review. The less frequently responded to audit questions are those that are not mandates or subject to outside review, however they are critical elements of a comprehensive risk management program.

4. If all of the above (#3) items are not completed, which of the below listed obstacles prevent your organization from performing a comprehensive risk management audit?

- 8 Not an organization priority
- 16 Lack of time

- 16 Lack of personnel
- 20 No defined audit process / criteria
- 8 Limited or no technical expertise

Comprehensive risk audits demand a significant allocation of resources as identified in the literature review. Lack of time and personnel are resources in short supply in fire departments trying to keep pace with growth demands, limited budgets, and expanding services. Failure to possess a defined audit process with specific criteria is symptomatic of being reactive to risk incidents. Time and personnel are necessary to craft, implement, and administer a risk audit process.

5. Is your organization's injury rate declining or increasing over the past 5 years (injuries / person)?

16 Increasing 12 Decreasing 4 Unknown

Decreasing injury rates are possibly the result of an increased emphasis on fireground safety over the past decade. Personnel accountability systems, requirement and enforcement for the use of SCBA's and protective clothing, bloodborne and airborne pathogen protection and etc. are contributing factors to reduction in injury rates. Additionally, increased emphasis on awareness and operational training with a focus on safety considerations has led to safer working practices and a subsequent lower number of injuries per employee. Of interest would be information addressing whether increased emphasis on physical fitness has a correlation result of lower injury rates. Increased injury rates may be the result of increased levels of services offered by departments throughout Washington. Many departments have adopted emergency medical transport services with attendant potential for increased back injuries, slips,

trips and falls. Two respondents noted that their increases were attributable to better documentation. If a respondent answered based on total number of injuries instead of injuries per firefighter the author would expect to see a higher number of “increasing” responses due to significant growth of departments in the past five years.

6. Over the past 5 years has your organization’s property loss rate increased or decreased?

6 Increased, 12 Decreased, 14 Unknown

The large number of unknown responses is surprising in an era of increased use of computer software use to organize, analyze and report data. Part of a risk management program, as identified in all related literature, includes a documentation system, including information specific to all loss. Statistical data is necessary to identify trends and success or failure of risk control efforts.

7. Within the past 5 years has your organization been involved in litigation?

5 Yes 27 No

Based on six phone calls to the author this question raised the anxiety of administrators of respondent departments. Concerns related to this question involved how the information was to be used and whether the respondent’s department would be identified. Involvement with litigation is obviously a sensitive issue and a hesitancy to accurately answer this question may have been present. Also, many departments are involved in litigation as a 3rd party, specifically by responding to a summons for appearance to provide testimony for the prosecution in criminal

cases. The intent of this question was to identify the frequency and types of litigation fire departments were party to as respondents to lawsuits.

8. If the answer to question #7 is yes please complete the following. Did the litigation involve?

2 harassment

0 discrimination

1 property damage (apparatus accident...)

1 injuries to organization employee

2 injuries to public

1 emergency scene operations

1 violation of regulatory requirements

0 Has anyone in your organization been criminally cited for responsibilities associated with performance / non-performance of fire service related duties?

There is no surprise to find that departments have been involved in litigation for any of the above listed exposure potentials. What is of interest is the lack of litigation for discrimination. Literature research discusses the discrimination potential as being a very significant litigation issue. Minority representation within Washington departments is quite limited and the State retirement system provides for an adequate retirement prior to employees reaching the age of 56 years. Court tested exam processes combined with limited candidates within groups of employees who are at a higher potential risk for discrimination may influence the low numbers of discrimination litigation.

Estimated cost of litigation (if known)? \$4,100, 9,000

Most respondents left this answer blank. The ability to access this information is often very difficult dependent on the type of organization, and is usually not a part of any annual report. Again, when compared to the number of departments with a written risk management plan, one might expect this type of data to be more readily available. Data of this type would assist in showing the true cost of losses.

9. Population served by organization; ranged from 6,000 to 140,000 with an average of 46,400.

Of notable interest is the lack of response from the major departments within Washington; Seattle, Tacoma and Spokane. Those three departments have increased their emphasis on risk management in recent years, partly as a result of litigation and regulatory oversight. Their responses would have been useful to determine if departments with substantial resources are able to effectively manage a comprehensive risk management program.

10. Type of department; 12 Career 20 Combination 0 Volunteer

Of all the departments with substantial challenges in developing, implementing and administering a risk management program, volunteer departments would be at the top of any list. Either those volunteer departments do not have the time or inclination to respond to a survey, or there was a hesitancy to complete the survey due to embarrassment or frustration.

DISCUSSION

An increasing emphasis on comprehensive risk management within the fire service is evident when reviewing reference materials published within the past five years and analyzing the results of the author's risk management survey. Though emergency scene operational safety has received the increased focus for the past twenty years, recent regulatory and consensus standard trends are shifting toward overall organizational risk management accountability. Respondents to the survey show affirmative answers to including non-emergency risk potentials into their risk management audit.

The low percentage of responses indicating that departments possess current, written, risk management programs demonstrate an apathy toward formalizing and documenting the department's proactive initiative in managing risk. Departments conduct risk management on a selective basis, picking and choosing those risks which are high visibility from a regulatory perspective. A formal, written, risk management program would illustrate numerous deficiencies and potentially cause a significant re-direction of resources to resolve the deficiencies. Some individuals may view that the best course of action would be to keep the book (risk deficiencies) closed until someone else opens it, through regulatory inspections, response to legal inquiries or an insurance mandated audit. Private industry practices are not significantly different, with numerous exceptions. Small to mid-sized businesses frequently conduct risk management in a similar manner, reacting to risk losses instead of being proactive and preventing or reducing the potential losses before they occur.

Of concern are the low percentage of responses that include all mandated regulatory requirements (ADA, FLSA, Civil Rights Act of 1964...) and the fire safety inspection program

in the audit process. One of the primary reasons listed for failure to include all listed items in the audit was lack of time, lack of personnel, and no defined audit process or criteria. These responses reinforce risk management reference sources that stress that a comprehensive program requires substantial investments of time and resources, personnel included, in addition to a well defined process. The fire service is typical of many government funded agencies; limited budget increases lagging behind the rate of inflation, increased responsibilities, and limited personnel resources. Increasing the emphasis toward accomplishing comprehensive risk management is on a long “to do” list. Until the situation reaches a crisis stage, little forward movement will occur toward including all necessary loss potentials on an annual risk audit.

Fortunately, though there are deficiencies in conducting annual comprehensive risk management audits, injury rates are decreasing. This trend within the state of Washington, is consistent with national trends related to emergency related injury rates. National non-emergency injury rates are increasing, with overall injury rates increasing. Washington’s reduction in injury rates may be attributable to implementation of the revised 296-305 WAC, Safety Standards For Firefighters, which mandate comprehensive emergency and non-emergency safety requirements.

It appears that few departments have a clear understanding of their specific property losses from an economic perspective. Though this data may be present in some archives, it does not appear to be readily accessible for review by the respondents. This type of data is critical to understanding whether trends are developing which can be mitigated through education, engineering or enforcement activities. Inability to identify the economic consequences of loss may also make it more difficult to make an argument for increased

expenditures to reduce long term losses. The literature review conducted by this author found that private industry relies heavily on economic loss data. Losses directly impact the profit/loss bottom line and must be stringently managed to remain competitive in the marketplace.

Surprisingly, there were few departments involved with civil litigation. In this age of an increasing litigious society, consensus standards becoming expected norms of conducting operations, and significant regulatory requirements, the expectations were for more affirmative responses. Literature review, primarily an effort to access court records through a legal research tool "Court Link" was extremely frustrating. A majority of large departments with increased exposure to civil litigation are part of municipalities. Civil litigation filings are generally against municipalities and not the individual fire department, thereby making research on fire department related litigation quite complicated. Texts researched gave very brief overviews of fire department related cases. Numerous examples of private industry risk related litigation was found in periodicals ranging from criminal prosecution of willful violations of OSHA (Occupational Safety and Health Administration) regulations to \$150 million sexual harassment court awards.

No fire department respondent indicated that risk management audits were performed by an individual with specific responsibilities for risk management or safety. Literature review shows a trend within private industry toward assigning risk management responsibilities to an individual or organizational unit dedicated to those tasks specifically. A majority of large corporations have dedicated risk managers and staff with mid-sized businesses beginning to dedicate staff to risk management responsibilities.

RECOMMENDATIONS

An organizational commitment by the Redmond Fire Department to develop and implement a comprehensive risk management program is necessary in the very near future. Faced with significant challenges in developing an all risk process Redmond Fire must collaborate with the City of Redmond Risk Manager to develop a program that, while specific to the needs of the fire department, will integrate with the overall City of Redmond risk management program.

Development of a risk management program policy stating the organization's express desire to make risk management a high level priority is the first step. The policy should state a commitment to provide necessary resources to control potential losses. General and specific goals should be articulated to provide program development guidance and an evaluation framework to measure program progress. The program policy statement should be a collaborative effort with representation of all divisions within the department, the safety committee and labor organization.

Assignment of risk management responsibilities should be delegated by the Chief to one individual within the organization meeting, at a minimum, the qualifications identified in Appendix C. The department risk manager should be allowed access to all intra-department and inter-department personnel and data sources to develop a comprehensive program. Frequent communication of program needs and status must be provided to senior staff and department members.

A comprehensive risk audit covering all the previously identified loss potentials must be completed with present status and corrective recommendations listed. Further, assignment of

responsibilities, identification of appropriate resources and training, and timelines for review and completion are necessary. The comprehensive audit must include all:

1. Mandated regulatory (federal, state, and local) requirements,
2. Policies and procedures,
3. Quality control review of reports and documentation,
4. Training to appropriate standards and accepted practices,
5. Facility, equipment, and vehicle inspections and maintenance,
6. Assessment of acquisition process and plans for facilities, equipment and vehicles.
7. Health maintenance; physical exams, physical fitness, preventive measures,
8. Financial controls,
9. Information management; documentation, computer security...,
10. Workplace security,
11. Disaster preparedness and recovery,
12. Inter-agency contract review and implementation,
13. Labor relations,
14. Statistical data collection, evaluation, and reporting,
15. Review of appropriateness for compliance with national consensus standards,
16. Analysis of building and fire safety inspections,
17. Risk financing options for various loss potentials.

The complexities associated with all of the previously identified responsibilities requires that the Redmond Fire department give serious consideration to exploring the feasibility for assigning an individual to a risk manager position. Additional specialized training will be

necessary to orient the individual to non-fire service traditional risk management theory and practices. A fire service experienced individual is critical for this assignment due to the specialized nature of a majority of risk loss potentials.

Consideration for a partnership with surrounding jurisdictions to assume the approximately \$85,000 per year cost would make economic sense. Many risk management issues cross jurisdictional boundaries and are common to adjoining departments. A partnership would also assist in moving the participant departments toward development of unified policies, procedures, processes, and training. Further benefits might include having the ability to initiate a safety officer response capability crossing jurisdictional boundaries.

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APPENDIX A

Dear Fire Service Colleague,

The end is almost in sight with respect to my ongoing four-year series of Executive Fire Officer research projects – hallelujah! I present to you a survey form that is estimated to take approximately ten minutes to complete and mail. The purpose of the survey is to assist me in determining whether the fire service is performing comprehensive, organization wide, ongoing risk management. Your prompt and timely response will be greatly appreciated; please feel free to fax the information to (425) 556-2227. Questions may be directed to Andy Hail, Battalion Chief of Training / Safety @ (425) 556-2221. Happy holidays & best wishes for the New Year.

1. Does your organization have a current, written, risk management program?

_____ Yes _____ No

2. Is an annual risk management compliance audit conducted?

_____ Yes _____ No

If the answer to question #2 is yes, who performs the audit?

Training Officer	_____	Training / Safety Officer	_____
Safety Officer	_____	Risk Manager (FD)	_____
Chief Officer	_____	Company Officer	_____
Risk Manager	_____	Other (identify)	_____

_____ (City/District)

If the answer to question #2 is no, when was the last time an audit was performed?

13 – 24 mo's _____, 25 – 36 mo's _____, > 36 mo's _____, Unk _____, Never _____

3. Please identify, with a check mark, all of the below listed items reviewed in your organization's risk management program audit.

- _____ Policy / procedures currency
- _____ Compliance with all mandated regulatory requirements
- _____ Documentation of all mandatory training
- _____ Review of incident documentation accuracy, completeness, timeliness (quality assurance)
- _____ Review of all accident reports
- _____ Analysis of statistical data for financial losses resulting from accidents, property losses, personnel injuries, liability claims / judgments.
- _____ Currency and completeness of department facility inspections
- _____ Currency and completeness of all department vehicle inspections, workorders, and follow-through
- _____ Assessment of occupancy inspection program including; training of inspectors, regularly scheduled inspections of all occupancies, compliance for all noted violations and record keeping
- _____ Documentation review for financial audits

4. If all of the above (#3) items are not completed, which of the below listed obstacles prevent your organization from performing a comprehensive risk management audit.

- _____ No an organization priority
- _____ Lack of time
- _____ Lack of personnel
- _____ No defined audit process / criteria
- _____ Limited or no technical expertise

5. Is your organization’s injury rate declining or increasing over the past 5 years (injuries / person)?
 _____ Increasing _____ Decreasing _____ Unknown

6. Over the past 5 years has your organization’s property loss rate increased or decreased?
 _____ Increased, _____ Decreased, _____ Unknown

7. Within the past 5 years has your organization been involved in litigation?
 _____ Yes _____ No

8. If the answer to question #7 is yes please complete the following. Did the litigation involve?
 _____ harassment
 _____ discrimination
 _____ property damage (apparatus accident...)
 _____ injuries to organization employee
 _____ injuries to public
 _____ emergency scene operations
 _____ violation of regulatory requirements

_____ Has anyone in your organization been criminally cited for responsibilities associated with performance / non-performance of fire service related duties?

Estimated cost of litigation (if known) _____?

9. Population served by organization _____

10. Type of department; _____ Career _____ Combination _____ Volunteer

Please check if you would like a copy of the survey results _____

Send to: _____

Please return the survey ASAP in the enclosed postage paid envelope or fax to Andy Hail @ (425) 556-2227

THANK YOU!

APPENDIX B

Typical Functions of A Risk Manager

1. Participating in the formulation of a risk management policy statement.
2. Identifying existing facilities, conditions, and situations that may produce losses.
3. Reviewing proposed facilities, programs, and other activities for risk management implications.
4. Preparing recommendations and providing assistance in eliminating or minimizing losses.
5. Providing for the establishment and maintenance of records relating to insurance coverage's, loss and claims, and other important information.
6. Analyzing loss information.
7. Preparing recommendations concerning appropriate methods for funding potential risks, such as purchase of insurance, current expense funding, or use of a claims reserve fund.
8. Negotiating insurance coverage's.
9. Adjusting claims and working with the insurance carrier, insurance agent, service company, attorney, and others in the defense and settlement of claims
10. Allocating insurance and other costs related to claims among departments.
11. Ensuring that appropriate changes are made in levels of insurance coverage in response to changes in requirements.
12. Establishing and maintaining a loss control program.
13. Reviewing and analyzing state and federal legislation, regulations, and court decisions for implications for the risk management program.

14. Communicating “upward and downward” and encouraging participation in the program by other local officials and employees.

APPENDIX C

Examples of Risk Manager Qualifications

1. Interest in being a risk manager.
2. Ability to learn how to fulfill new responsibilities without significant formal training.
3. Ability to set up and maintain an efficient recordkeeping system.
4. Ability to identify trends and draws practical conclusions from data, personal observations, and risk management literature.
5. Ability to identify the risk management implications of legislation, regulations, and administrative guidelines.
6. Substantial familiarity with the local government's operations, since the risk manager should construct procedures that will facilitate the identification of changes and potential changes in risk exposures and should know how to use local patterns of influence to achieve objectives.
7. Aggressiveness, since the risk manager must be willing to deal with potentially troublesome situations before they result in problems and also because his or her duties may require intervention in situations that others may wish left alone.
8. Tactfulness, to avoid offending other parties and thereby hinder the cooperation upon which much program success must be based.
9. Ability to communicate effectively, because much of the risk manager's success in eliciting cooperation from others will depend on their understanding of what he or she thinks should be done.

10. Ability to educate, because of the possible need to organize educational events for local officials and employees and to make presentations at such events.
11. Thorough understanding of the organization's policies and procedures and accepted organization or industry practices.