

ANNE ARUNDEL COUNTY FIRE DEPARTMENT



NFPA 1500 (2002 Edition) COMPLIANCE ASSESSMENT

April 1, 2004

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INTRODUCTION

More than five (5) years ago, the Fire Department set a goal to evaluate itself against NFPA 1500, the National Fire Protection Association's Standard on Fire Department Occupational Safety and Health. The importance of this standard is evident when one looks at its history. In 1987 when it was first developed, 131 fire fighter fatalities occurred nationwide. Since its inception, there has been a general decline in these deaths. Each new edition, which is published every five (5) years adds new standards specifically designed to address safety and health issues.

The department's first evaluation of this standard began with the 1997 edition when we learned our overall compliance rate was 41%. Afterwards, the department took many steps to improve compliance. This report summarizes the department's compliance assessment of the 2002 edition which indicates our current compliance rate is 73%. While we have made significant improvements, the department remains committed to achieve 100% compliance.

The 2002 edition of NFPA 1500 consists of twelve (12) chapters listed below:

Chapter 1 - Administration	Chapter 7 - Protective Clothing & Protective Equipment
Chapter 2 - Referenced Publications	Chapter 8 - Emergency Operations
Chapter 3 - Definitions	Chapter 9 - Facility Safety
Chapter 4 - Fire Department Administration	Chapter 10 - Medical and Physical Requirements
Chapter 5 - Training and Education	Chapter 11 - Member Assistance and Wellness Programs
Chapter 6 - Apparatus, Equipment & Driver/Operators	Chapter 12 - Critical Incident Stress Program

Other NFPA standards are referenced within these chapters including: NFPA 1403, *Standard on Live Fire Training*, NFPA 1561, *Standard on Fire Department Incident Management System*, NFPA 1581, *Standard on Infection Control*, NFPA 1582, *Standard on Fire Department Physicals*, NFPA 1583, *Standard on Firefighter Fitness*, NFPA 1901, *Standard on Automotive Fire Apparatus*, as well as many others.

The evaluation of our Department would not have been possible without the enormous effort of many people. I would particularly like to thank: Division Chief Michael Hall, Division Chief Victor Lindsay, Division Chief David Stokes, Captain Michael Cox, Captain Daniel Brown, Captain Keith Swindle, Lieutenant Scott Ryder, and the Department's Health and Safety Committee for their assistance in this project.

Division Chief Allen S. Williams
Health and Safety Division

DESCRIPTION OF EVALUATION PROCESS

The evaluation process began by identifying the most appropriate division and/or personnel to review each chapter. For example, our Training Division was chosen to evaluate Chapter 5 (Training and Education). After an appropriate division and/or person was selected, individual sections of each chapter were typed into a compliance worksheet as illustrated below. Completed compliance worksheets for each chapter can be found in the appendix portion of this report.

Compliance Worksheet - Chapter 4 (Fire Department Administration)

Section	Title	Description	Compliance 1) Complete 2) Partial 3) None 4) Further Study Required	Specific documents that meet this standard OR list of action items
4.1.1	Fire Dept Organizational Statement	The Fire department shall prepare and maintain a written statement or policy that establishes the existence of the fire department, the services of the fire department is authorized and expected to perform and the basic organizational structure.	Complete	County Charter - Section 545 (Fire Administrator), Sec. 546 (Fire Advisory Board), Sec. 547 (Functions and duties of the Fire Department) R & R's / Introduction /Mission/ Vision Statements: R & R's / Introduction / Organizational Chart

The example above is the first section of Chapter 4 (Fire Department Administration). The Section, Title and Description were copied verbatim from the standard. For each individual section, personnel conducting the evaluation were asked to choose one of four options in determining compliance: 1) "Complete," 2) "Partial," 3) "None" or 4) "Further Study Required." In drawing this conclusion, they were asked to be very thorough. This was important to ensure their findings would be equivalent to an evaluation done by any other agency. If the evaluators felt a section was compliant because of an unwritten practice, they listed that area as "Partial." In the last column, evaluators listed documents that substantiate compliance, or in the case of partial or non-compliant sections, they provided recommendations on how we could achieve compliance.

When a chapter was completed, the person(s) who conducted the evaluation presented their conclusions to the Occupational Safety and Health Committee. After their review, the work sheet was edited as necessary. Finally, a summary was written for each chapter that includes an overview of its requirements; our strengths and weaknesses; charts that illustrates our compliance and a list of goals along with their fiscal impact to achieve full compliance. These summaries begin on page 6.

EXECUTIVE SUMMARY

Figure 1, shown below, illustrates the department's compliance with Chapters 4-12 of NFPA 1500. Figure 2, compares the Departments compliance between the 1997 and 2002 editions. Chapters 1-3 were excluded because they are introductory in nature and do not include any substantial requirements. Tables 1-3 on the next page compare the results of each chapter.

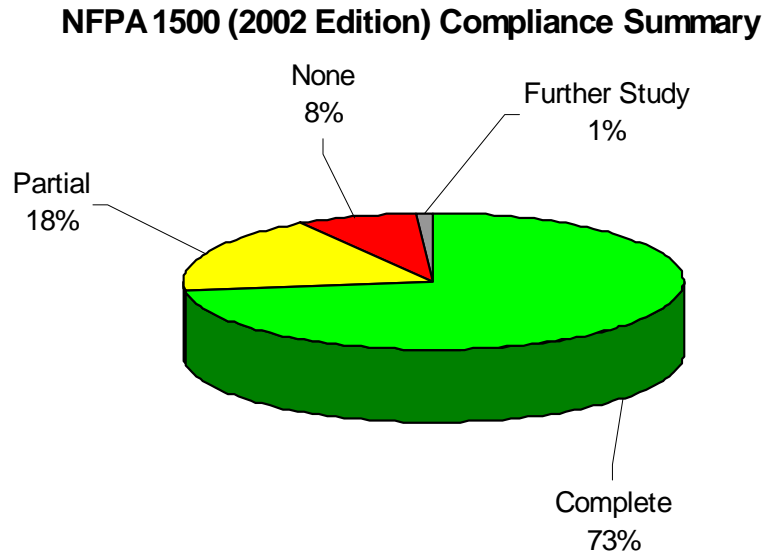


Figure 1

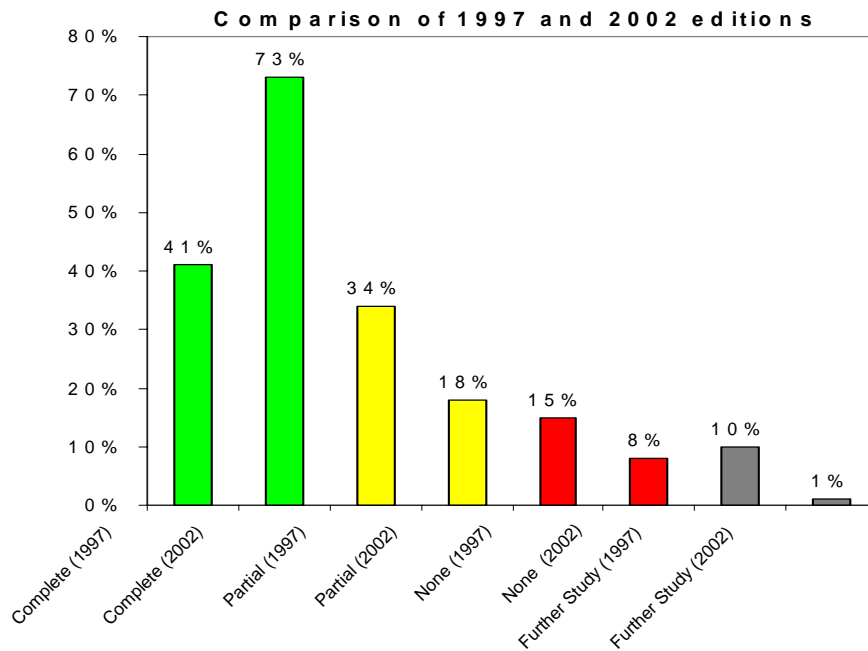


Figure 2

Table 1: Summary of Results by Chapter:

Chapter	Compliant		Partially Compliant		Not Compliant		Further Study Required		Total: Sections
4 (Administration)	72	65%	24	22%	14	13%	1	1%	111
5 (Training)	13	35%	20	54%	3	8%	1	3%	37
6 (Vehicles)	46	85%	6	11%	1	2%	1	2%	54
7 (Protective Equip)	96	90%	5	5%	5	5%	1	1%	107
8 (Emergency Ops)	96	80%	16	13%	8	7%	0	0%	120
9 (Facility Safety)	9	75%	3	25%	0	0%	0	0%	12
10 (Medical)	5	19%	12	46%	9	35%	0	0%	26
11(Member Assist)	9	100%	0	0%	0	0%	0	0%	9
12 (CISM)	4	100%	0	0%	0	0%	0	0%	4
Totals:	350	73%	86	18%	40	8%	4	1%	480

Table 2: Sorted by Most Compliant Chapters:

Chapter	Compliant		Partially Compliant		Not Compliant		Further Study Required		Total: Sections
12(CISM)	4	100%	0	0%	0	0%	0	0%	4
11(Member Assist)	9	100%	0	0%	0	0%	0	0%	9
7 (Protective Equip)	96	90%	5	5%	5	5%	1	1%	107
6 (Vehicles)	46	85%	6	11%	1	2%	1	2%	54
8 (Emergency Ops)	96	80%	16	13%	8	7%	0	0%	120
9 (Facility)	9	75%	3	25%	0	0%	0	0%	12
4 (Administration)	72	65%	24	22%	14	13%	1	1%	111
5 (Training)	13	35%	20	54%	3	8%	1	3%	37
10 (Medical)	5	19%	12	46%	9	35%	0	0%	26
Totals:	350	73%	86	18%	40	8%	4	1%	480

Table 3: Sorted by Least Compliant Chapters:

Chapter	Compliant		Partially Compliant		Not Compliant		Further Study Required		Total: Sections
10 (Medical)	5	19%	12	46%	9	35%	0	0%	26
5 (Training)	13	35%	20	54%	3	8%	1	3%	37
4 (Administration)	72	65%	24	22%	14	13%	1	1%	111
9 (Facility)	9	75%	3	25%	0	0%	0	0%	12
8 (Emergency Ops)	96	80%	16	13%	8	7%	0	0%	120
6 (Vehicles)	46	85%	6	11%	1	2%	1	2%	54
7 (Protective Equip)	96	90%	5	5%	5	5%	1	1%	107
11(Member Assist)	9	100%	0	0%	0	0%	0	0%	9
12(CISM)	4	100%	0	0%	0	0%	0	0%	4
Totals:	350	73%	86	18%	40	8%	4	1%	480

The total fiscal impact was difficult to determine for a variety of reasons. As an example, Chapter 4 requires an accident prevention program that includes numerous components including training. This made the exact cost to comply with that section very difficult to determine. Cost determination for sections that have broad implications were also difficult. For instance, Chapter 9 requires compliance with all legally applicable health, safety, building and fire code requirements. This was also very difficult to determine. Costs such as these were categorized as “Undetermined.” Table 4, shown below, summarizes the known fiscal impact of compliance with all chapters. It is likely that the total fiscal impact for complete compliance will be much higher.

It should be noted that many of the goals necessary to ensure compliance do not require any capital outlay. In fact, of the seventy-seven (77) goals included in this report, approximately 65% can be completed with little or no expenditure.

Table 4 - Summary of Fiscal Impact (Capital Outlay)

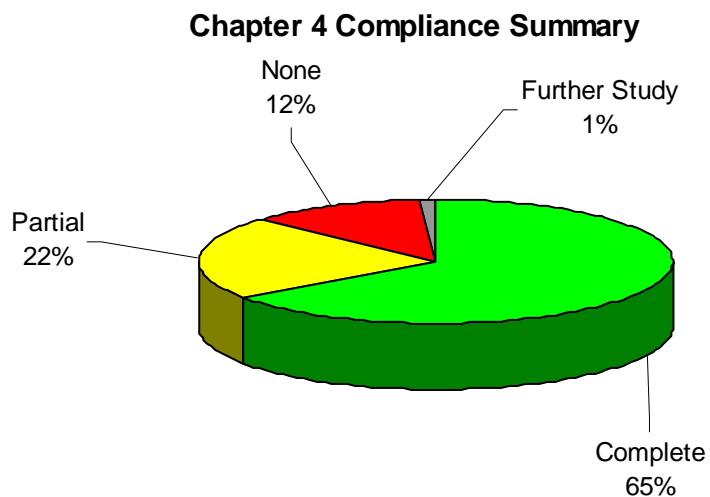
CHAPTER	ESTIMATED CAPITAL OUTLAY
Chapter 4 - Administration	Undetermined
Chapter 5 - Training and Education	Undetermined
Chapter 6 - Fire Apparatus Equipment and Drivers	\$16,000.00 (minimum)
Chapter 7 - Protective Clothing and Protective Equipment	\$7,000
Chapter 8 - Emergency Operations	\$146,836 (minimum)
Chapter 9 - Facility Safety	\$1,000 (minimum)
Chapter 10 - Medical and Physical	\$1,181,100 (minimum)
Chapter 11 - Member Assistance and Wellness Program	\$0.00
Chapter 12 - Critical Incident Stress Program	\$0.00
TOTAL:	\$1,351,936 (minimum)

CHAPTER 4 (FIRE DEPARTMENT ADMINISTRATION)

This chapter describes various aspects of fire department administration. Examples include a requirement to maintain a statement establishing a department's existence and various policies regarding standard operating procedures. It also requires a comprehensive written Risk Management Plan. Other requirements address an Occupational Safety and Health Committee; a Health and Safety Officer; Laws, Codes and Standards; Training and Education; Accident Investigation; Records Management; Apparatus and Equipment; Facility Inspections; Health Maintenance; Infection Control; Critical Incident Stress Management; and Post Incident Analysis.

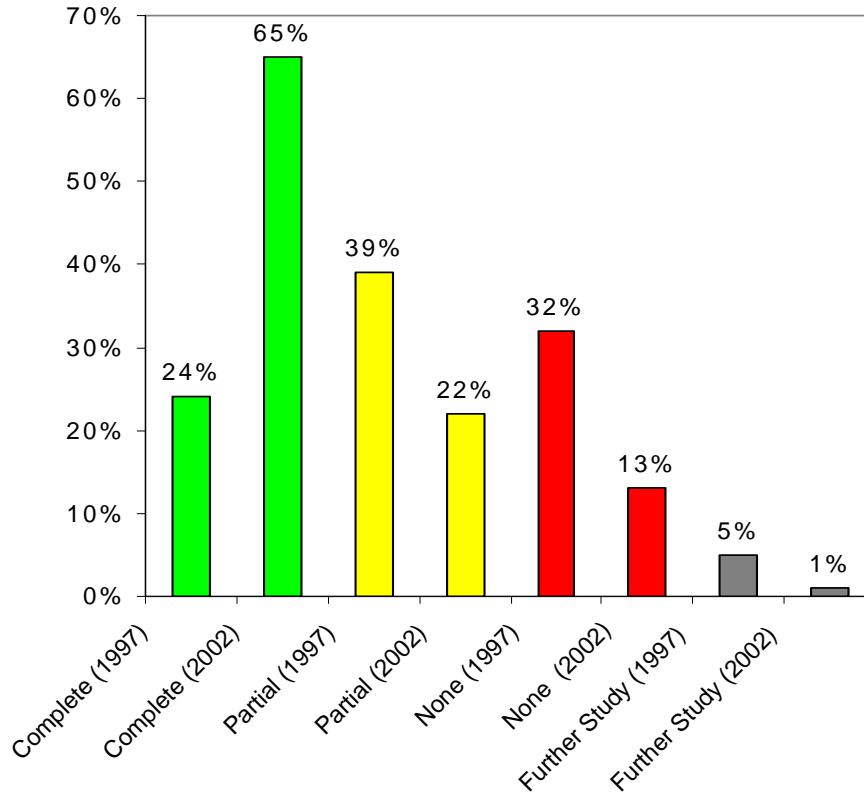
Some of our strengths in this chapter include written statements regarding our existence in the County Charter, the Fire Department Mission Statement and Functional Organizational Chart. Other strengths include the establishment of OPM 4 (Health and Safety), the appointment of a Health and Safety Officer, Facility Inspections, an Infection Control Program, a Critical Incident Stress Management Program, Post Incident Analysis Policies, the use of designated Safety Officers, and the existence of our Occupational Safety and Health Committee. Examples of areas where improvement is needed include a written risk management plan; an investigation procedure for serious injuries or line of duty deaths; the establishment of an accident prevention program; equipment service record retention; and enhancements to our health maintenance efforts.

A graphic illustration of compliance is shown below:



An illustration comparing the degree of compliance between the 1997 and 2002 editions of the Fire Department Organization Chapter is shown below:

Comparison of 1997 and 2002 editions



Major goals anticipated to ensure compliance:

Goal	Capital Outlay
Develop and adopt a comprehensive written risk management plan. (4.2.1, 4.2.2, 4.2.3)	0
Develop and implement an investigation procedure for all accidents, involving injuries, fatalities, illnesses, exposures, vehicles, equipment or fire department facilities. The procedure shall include a data collection system and require the department to take corrective action to avoid repetitive occurrences as well as maintain permanent records. (4.4.4, 4.4.5, 4.4.6, 4.4.7, 4.4.8, 4.6.1, 4.10.6, 4.11.2, 4.11.3, 4.11.4, 4.11.5, 4.11.5.1, 4.12.2)	0
Establish a confidential health record for each member and a health data base. (4.6.3)	Undetermined
Establish, in writing, a requirement that inspection, maintenance, repair and service records are maintained for all vehicles and equipment used for emergency operations and training. (4.6.5)	0
Establish the role of the health and safety officer in the enforcement of the rules, regulations, and standard operating procedures. (4.8.3)	0
Ensure training in safety procedures relating to all fire department operations and functions is provided to fire department members. The training shall address recommendations arising from the investigation of accidents, injuries, occupational deaths, exposures and the observation of incident scene activities. (4.9.1, 4.9.2)	Undetermined
Ensure safety supervision is provided for training activities, including all live burn exercises. (4.9.3)	Undetermined
Establish an accident prevention program. It shall provide instruction for all fire department members in safe work practices for emergency and non-emergency operations. It shall address the training and testing of all fire department drivers, including fire apparatus drivers/operators. (4.10)	Undetermined
Establish a procedure requiring the health and safety officer to report any recommendation to the fire chief or the fire chief's designated representative. (4.10.6)	0
Establish a system to maintain records on periodic inspection and service testing of equipment (ladders, pumps, ropes, etc.). (4.12.4)	Undetermined
Establish formalized responsibility for reviewing specifications for new apparatus, equipment, protective clothing, and protective equipment for compliance with applicable safety standards. (4.13.1)	0

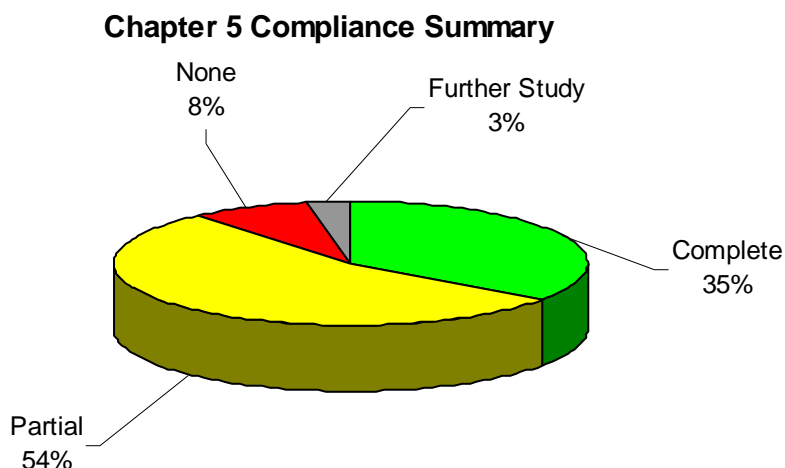
Goal	Capital Outlay
Establish a formalized procedure for the health and safety officer to assist and make recommendations regarding service testing of equipment to determine its suitability for continued service. (4.13.3)	0
Establish Health Maintenance programs regarding nutrition, injury rehabilitation, and medical surveillance. (4.15.2)	Undetermined
TOTAL:	Undetermined

CHAPTER 5 (TRAINING AND EDUCATION)

This chapter describes various requirements for training and education. For example, it requires that the fire department establish and maintain a training and education program with a goal of preventing occupational accidents, deaths, injuries, and illnesses. It also specifies other NFPA standards as minimal training requirements for each position. Fire fighters must meet NFPA 1001, *Standard on Fire Fighter Professional Qualifications*. Apparatus drivers/operators must meet NFPA 1002, *Standard for Vehicle Driver/Operator Professional Qualifications*, etc. Additional standards are also addressed such as NFPA 1403, *Standard on Live Fire Training Evolutions*. The remaining requirements address training frequency and proficiency.

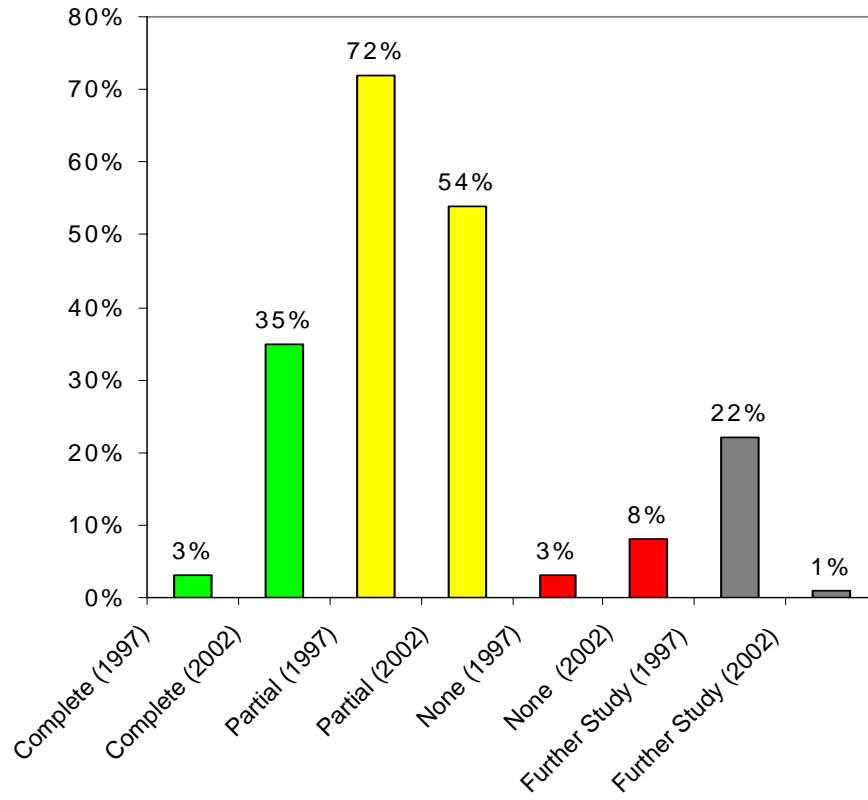
Our major strength is compliance with the training requirements for each rank within the fire department as well as the existence of OPM 4 (Health and Safety). As can be seen by the illustration below, we have many partially compliant sections. Examples where some attention is required include personal protective equipment training for volunteer EMS providers; volunteer participation in performance standard evolution training; a drivers certification process for small vehicles; annual skills checks; reoccurring skill proficiency assessment; and the incorporation of training requirements within some of our position specifications. There are only three areas where we are not compliant and they address Airport Firefighting and Wildland Firefighting certifications which the department currently does not have plans to pursue.

A graphic illustration of compliance is shown below:



An illustration comparing the degree of compliance between the 1997 and 2002 editions of the Training and Education Chapter is shown below:

Comparison of 1997 and 2002 editions



Major goals anticipated to ensure compliance.

Goal	Capital Outlay
Establish a training program regarding Personal Protective Equipment for volunteer EMS providers. (5.1.3, 5.1.8, 5.2.13)	Undetermined
Provide members with training and education on the Department's Risk Management Plan. (5.1.5)	Undetermined
Require volunteer participation in the PSE program (5.1.9, 5.3.6)	0
Require all members who engage in structural firefighting to meet the requirements of NFPA 1001, Standard on Fire Fighting Professional Qualifications. Currently volunteer probationary members may lack the EMT requirement. (5.2.1)	0
Require all drivers to meet the requirements of NFPA 1002, Standard for Fire Department Vehicle Driver/Operator Professional Qualifications. Currently a certification process is not required for drivers of cars, brush trucks, and utilities. (5.2.2)	Undetermined
Require all members who perform technical rescue tasks to meet the requirements of NFPA 1006, Standard on Rescue Technician Professional Qualifications. The requirement to meet NFPA 1006 can be completed by listing this within the position specifications in the departmental rules and regulations. (5.2.4, 5.4.1)	0
Require all members responding to hazardous materials incidents to meet the operational level as required by NFPA 472, Standard for competence of Responders to Hazardous Materials Incidents. Currently, it is not clear whether current classes meet these requirements. When confirmed, it should also be placed into position specifications. (5.2.7)	0
Require all training and exercises to be conducted in direct supervision of a qualified instructor, including departmental preceptors and field training officers. Currently all field training is not monitored for compliance. (5.2.11)	0
Provide training for all members as often as necessary to meet applicable requirements of this chapter. In doing so, establish a master listing of all mandatory training. (5.3)	0
Develop a reoccurring proficiency cycle with a goal of preventing skill degradation and the potential for injury and death of members. (5.3.2)	0
Develop and maintain a system to measure training progress and activities of members. (5.3.3)	0

Goal	Capital Outlay
Provide an annual skills check to verify minimum professional qualifications for members. (5.3.4)	0
Provide specific training when written policies, practices, procedures or guidelines are changed and/or updated. Currently, verification that training has occurred is lacking. (5.3.7)	0
Confirm the respiratory protection training program meets the requirements of NFPA 1404, Standard for Fire Service Respiratory Protection Training. (5.3.8)	0
Provide specific training to members who are likely to respond to special operations incidents in a support role to the special operations technicians. Training is not currently conducted for responders who support dive, trench/collapse, or marine special operations. (5.4.2)	0
Require members expected to perform hazardous materials mitigation activities to meet the training requirements of a technician as outlined in NFPA 472, Standard for Professional Competence of Responders to Hazardous Materials Incidents. This can be accomplished by including reference to NFPA 472 in position specifications. (5.4.3)	0
Require members expected to perform technical operations as defined in NFPA 1670, Standard on Operations and Training for Technical Rescue Incidents to meet training requirements specified in NFPA 1006, Standard for Rescue Technical Profession Qualifications. This can be accomplished by including reference to 1006 in position specifications. (5.4.4)	0
TOTAL:	Undetermined

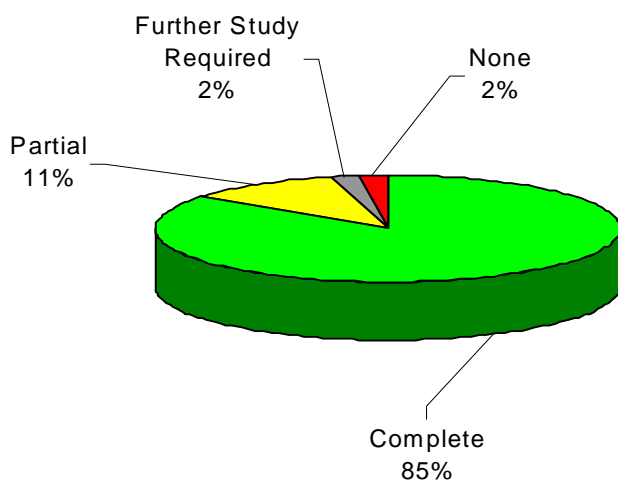
CHAPTER 6 (FIRE APPARATUS, EQUIPMENT AND DRIVER/OPERATORS)

This chapter addresses fire department apparatus, equipment and operators. The first section addresses Fire Department Apparatus, including a requirement to meet NFPA 1901, Standard for Automotive Fire Apparatus. Next, a section on Drivers/Operators addresses a wide variety of issues including training, licensing, operations during emergency responses, and the use of safety belts. The remaining sections address the inspection, maintenance and repair of fire apparatus, tools and equipment.

Some strengths include our longtime compliance with NFPA 1901, the Apparatus Safety Section of OPM 4, as well as, the Operations Support Section of the Department's Rules and Regulations. Examples of areas requiring attention include: driver training issues, the procurement of tools and equipment and the testing of ground ladders.

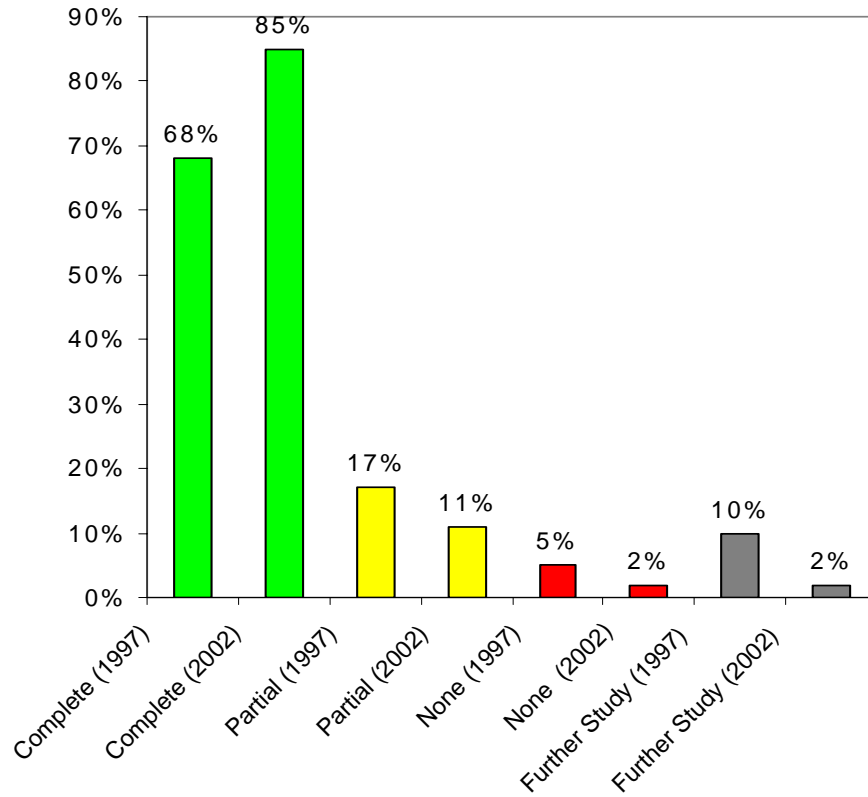
A graphical illustration of compliance is shown below:

Chapter 6 Compliance Summary



An illustration comparing the degree of compliance between the 1997 and 2002 editions of the Fire Apparatus, Equipment and Driver/Operators Chapter is shown below:

Comparison of 1997 and 2002 editions



Major goals anticipated to ensure compliance.

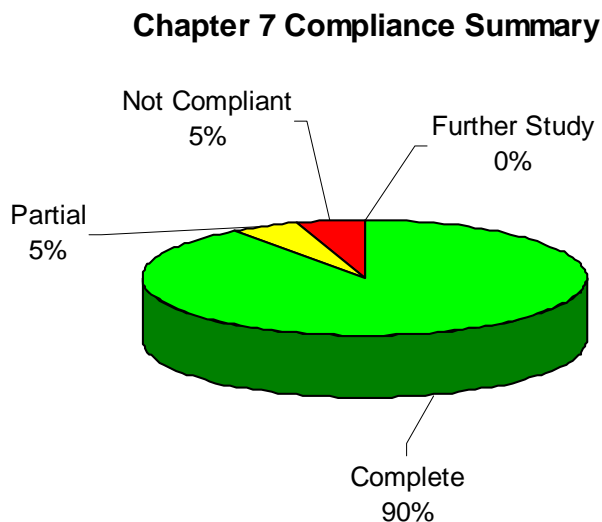
Goal	Capital Outlay
Ensure all marine fire-fighting vessels are specified and ordered to meet the requirements of NFPA 1925, Standard on Marine Fire-Fighting Vessels. (6.1.4)	0
Ensure fire department vehicles are operated only by members who have successfully completed an approved driver training program or by trainee drivers who are under the supervision of a qualified driver. This requirement should be placed within position specifications for each individual. Note - Currently, volunteer members who operate utility or brush vehicles are not required to attend a drivers training program. (6.2.1)	0
Establish in writing, the requirement to ensure the inspection, maintenance and repair of fire apparatus is conducted in accordance with NFPA 1915, Standard for Fire Apparatus Preventive Maintenance Program. (6.4.3)	0
Establish a procedure that requires safety and health as primary concerns in the specification, design, construction, acquisition, operation, maintenance, inspection, and repair of all tools and equipment. (6.5.1)	0
Establish a procedure to consider hearing conservation in the acquisition of new power tools and power equipment. (6.5.2)	0
Test ground ladders for training according to manufacturer's instructions and in accordance with NFPA 1932, Standard on Use, Maintenance and Service Testing of Fire Department Ground Ladders. This standard requires annual testing. Currently, the department conducts ground ladder testing every-other year. (6.5.8, 6.5.11)	\$16,000
Establish a procedure that requires all hydraulic rescue tools to meet NFPA 1936, Standard on Powered Rescue Tool Systems. (6.5.14)	0
TOTAL:	\$16,000 (Minimum)

CHAPTER 7 (PROTECTIVE CLOTHING AND PROTECTIVE EQUIPMENT)

This chapter addresses all aspects of Protective Clothing and Equipment. First, it requires that structural fire fighting ensembles meet NFPA 1971, Standard on Protective Ensemble for Structural Fire Fighting. In addition, it must be maintained in accordance with NFPA 1851, Standard on Selection, Care and Maintenance of Structural Fire Fighting Protective Ensembles. Other Subsequent sections relate to station uniforms, protective clothing for emergency medical operations, chemical protective clothing, respiratory protection, life safety rope, face and eye protection, and hearing protection.

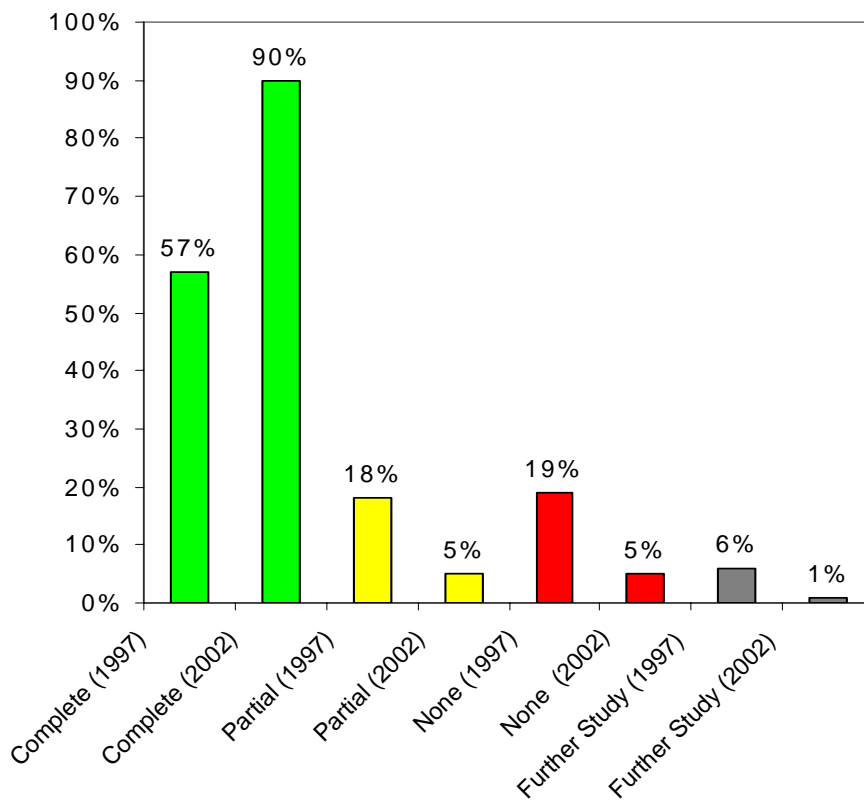
We take great pride in providing high quality protective equipment to our firefighters. Our compliance in this chapter has been enhanced even further since our last assessment with the adoption of three new/revised OPM's. They include the Selection, Care and Maintenance of Structural Fire fighting Ensembles; Protective Equipment, and Respiratory Protection. Another improvement was the distribution of NFPA compliant uniforms for volunteer personnel. Examples of areas needing attention include: defragmentation chambers for units that fill SCBA's, policies regarding the required number of SCBA when repairs are being made, and a policy that identifies unique emergency situations where rapid filling of SCBA cylinders shall be permitted to occur.

A graphical illustration of compliance is illustrated below:



An illustration comparing the degree of compliance between the 1997 and 2002 editions of the Protective Clothing and Protective Equipment Chapter is shown below:

Comparison of 1997 and 2002 editions



Major goals anticipated to ensure compliance.

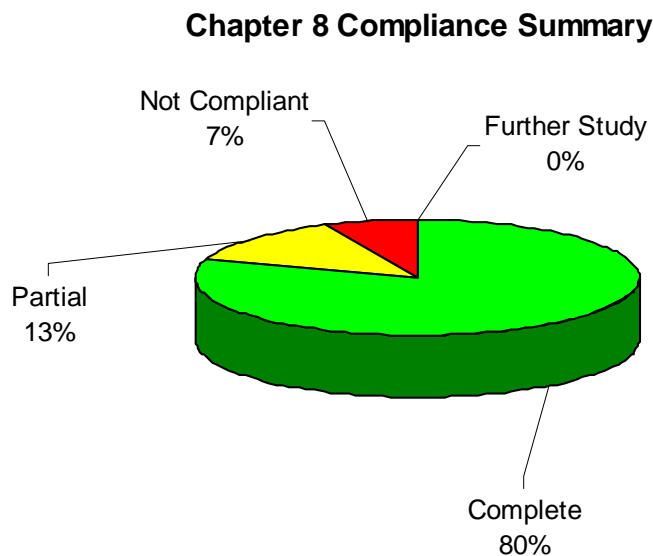
Goal	Capital Outlay
Ensure members are tested and certified at least annually in the safe and proper use of the respiratory protection equipment they are authorized to use. (7.8.3)	0
Establish, in writing a requirement to maintain the required number of SCBA in service when maintenance or repairs are being conducted. (7.8.4)	0
Establish, in writing a requirement to ensure an adequate reserve air supply is provided by use of reserve cylinders or by an on-scene refill capability. (7.8.5)	0
Clarify, in writing with MSA that supplied air respirators, Type C Pressure-Demand class, shall not be used in IDLH atmospheres unless they meet manufacturer's specifications for that purpose. (7.10.2.3)	0
During filling of SCBA cylinders, ensure that all personnel and operators are protected from catastrophic failure of the cylinder. (7.12.5). Note - This only needs to be completed for Squad 1 and Squad 12.	\$1,000 (Squad 1) \$6,000 (Squad 12)
Establish a policy that identifies those unique emergency situations where rapid filling of SCBA cylinders shall be permitted to occur. The fire department risk assessment process shall incorporate standard operating procedures to identify these situations. (7.12.6, 7.12.7, 7.12.8)	0
For instances when an individual becomes disoriented, runs low on air, is trapped and cannot be moved, establish a policy regarding the use of rapid fill, air transfer, or a supplied-air source. (7.12.9)	0
Establish, in writing a requirement to test each PASS device at least weekly and prior to each use; and for it to be maintained in accordance with manufacturer's instructions. (7.13.3)	0
Establish a procedure to remove any personal protective ensembles from service manufactured prior to the 1986 edition of NFPA 1971, Standard on Protective Ensemble for Structural Fire Fighting. (7.17.3)	0
TOTAL:	\$7,000

CHAPTER 8 (EMERGENCY OPERATIONS)

This chapter is the largest in the standard. The first section requires an incident management system that complies with NFPA 1561, Standard on Fire Department Incident Management System. The next section discusses the concept of Risk Management. A section on personnel accountability is next, followed by operations at emergency incidents; rapid intervention; rehabilitation; civil unrest/terrorism; and post incident analysis.

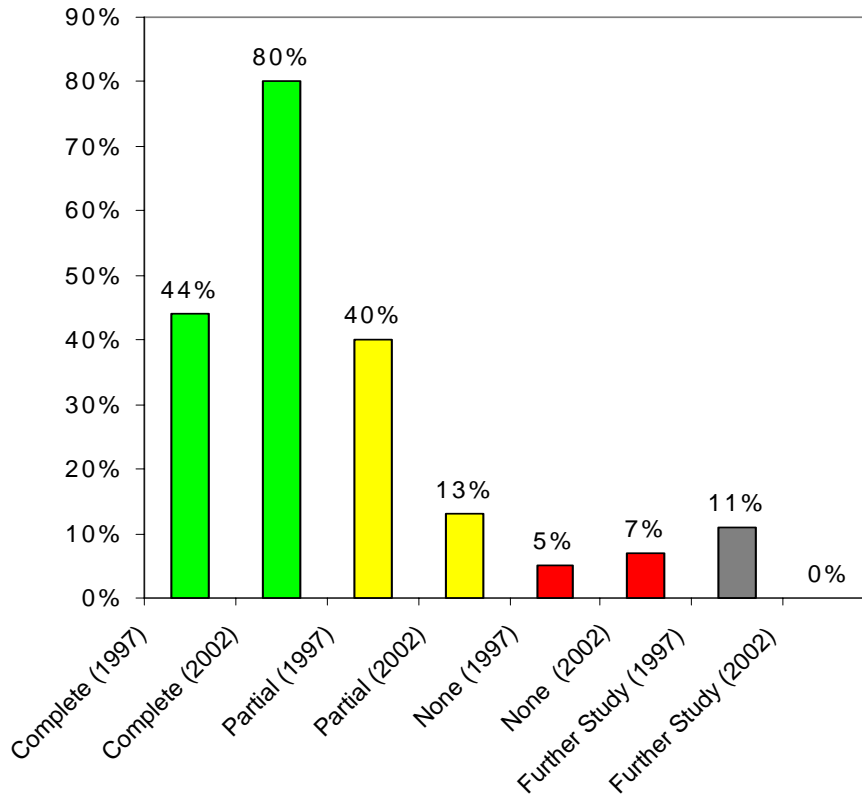
Our major strength in this chapter is OPM 2 which addresses many of the requirements for an incident command system. Our pro active efforts in OPM 4 to comply with Risk Management, 2-In/2-Out requirements, Rapid Intervention, Rehabilitation and Post Incident Analysis helped us comply with the other portions. Examples of areas that we need to address include: a new “emergency traffic” communications procedure; professional qualifications for Telecommunicators; the notification of the incident commander in 10-minute intervals; the provision of PPE for members entering areas involving a risk of physical violence; and retro-reflective signs to warn on-coming traffic of emergency operations.

A graphical illustration of compliance is shown below:



An illustration comparing the degree of compliance between the 1997 and 2002 editions of the Emergency Operations Chapter is shown below:

Comparison of 1997 and 2002 editions



Major goals anticipated to ensure compliance.

Goal	Capital Outlay
Edit OPM 2 (Incident Scene Management) to include in the duties of the incident commander the responsibility to develop an overall strategy and an incident action plan and assign companies and members consistent with the standard operating procedures. (8.1.8.5)	0
Enhance the current departmental procedure regarding “Emergency Traffic.” Consider removing it from communications section of R&R’s and place in Emergency Procedures of OPM 4 or the Communications Section of OPM 2. (8.1.9, 8.1.10.1, 8.1.10.2, 8.1.11, 8.1.11.1)	0
Certify telecommunicators as meeting NFPA 1061, Standard for Professional Qualifications for Public Safety Telecommunicator. (8.1.9)	Undetermined
Establish a procedure requiring the communications center to start an incident clock when the first arriving unit is on-scene of a working structure fire, hazardous materials incident, or when other conditions appear to be time sensitive or dangerous. (8.1.12)	Undetermined
Establish a procedure requiring the communications center to provide the incident commander with reports of elapsed time-on-scene at emergency incidents in 10-minute intervals until reports are terminated by the incident commander. The procedure should permit the incident commander to cancel the incident clock notification based on incident conditions. (8.1.12.1, 8.1.12.2)	0
Establish a procedure requiring the assignment of a safety officer on special operations incidents. (8.2.5)	0
Ensure appropriate equipment (e.g. body armor) is available and used before members are allowed to enter a civil disturbance or incident involving the risk for physical violence. Cost based upon supplying 29-Engines, 7-Trucks, 7-Squads, 15 PM units, 15 ambulances. (2 on medical units, 4 on all other units)	\$100,000
Establish a reminder within current OPM’s to exercise risk management practices at terrorists incidents or other incidents involving potential nuclear, biological and chemical exposures. (8.2.7)	0

Goal	Capital Outlay
Due to the possibility of members being exposed to nerve agents during terrorists activities, consider providing atropine auto-injectors for members. Currently, ALS units carry these kits for 2-caregivers and one patient and they are not included on daily PM check sheets. To provide dose for all-on duty staff (138 field + 50 staff) X \$60 = \$11,280 (8.2.8)	\$11,280
Edit the Rapid Intervention Policy to require standby members to be responsible to know the time that crews enter. (8.4.8)	0
Establish a policy regarding the area designated as the IDLH on aircraft fire-fighting incidents. (8.4.18, 8.4.19, 8.4.20)	0
Ensure emergency medical care and medical monitoring at hazardous materials incidents is provided by or supervised by personnel who meet the minimum requirements of NFPA 473, Standard for Competencies for EMS Personnel Responding to Hazardous Materials. It is recommended that this requirement be placed within position responsibilities. (8.4.22)	Undetermined
Provide DOT-approved retro-reflective signs stating “Emergency Scene”) to be utilized to warn oncoming traffic of emergency operations. (8.4.27) Costs based on 29-Engines, 7 Trucks, 7 Squads, 15 PM units, 15 ambulances. Each sign - \$372.00	\$27,156
Ensure members involved in water rescue are issued and wear personal flotation devices that meet U.S. Coast Guard requirements. Currently, units are equipped with PFD’s, however they are not listed on daily PM check sheets. (8.4.29)	0
Edit the Rapid Intervention OPM to require that the RIC remains intact during firefighter rescue operations. (8.5.6.1)	0
Provide 2L (2qt) of water to each member who engages in wildland fire-fighting operations. (8.6.5) Cost estimate based upon \$8 (per unit) X 1,050 = 8,400	8,400
Edit the Post Incident Analysis OPM to specifically require the involvement of the fire department incident safety officer. (8.8.2)	0

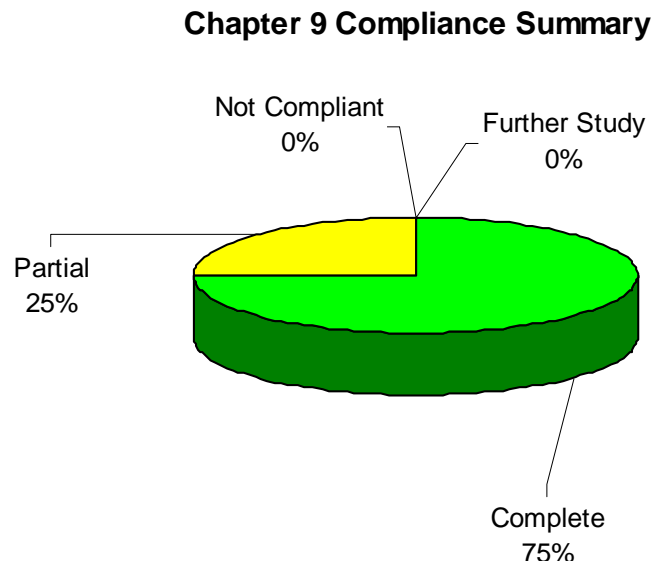
Goal	Capital Outlay
Edit the purpose of the Post Incident Analysis OPM to include: 1) indicate it is a basic review of the conditions present, actions taken and the effect on the conditions and actions on the safety and health of members. (8.8.3) 2) the analysis shall identify any action necessary to change or update any safety and health program elements to improve the welfare of members. (8.8.4)	0
TOTAL:	146,836 (minimal)

CHAPTER 9 (FACILITY SAFETY)

This chapter addresses health and safety at our facilities. The first section addresses safety standards including compliance with NFPA 1581, Standard on Fire Department Infection Control Program; NFPA 101, Life Safety Code; and other legally applicable health, safety, building and fire code requirements. The next section discusses inspections, followed by maintenance and repairs.

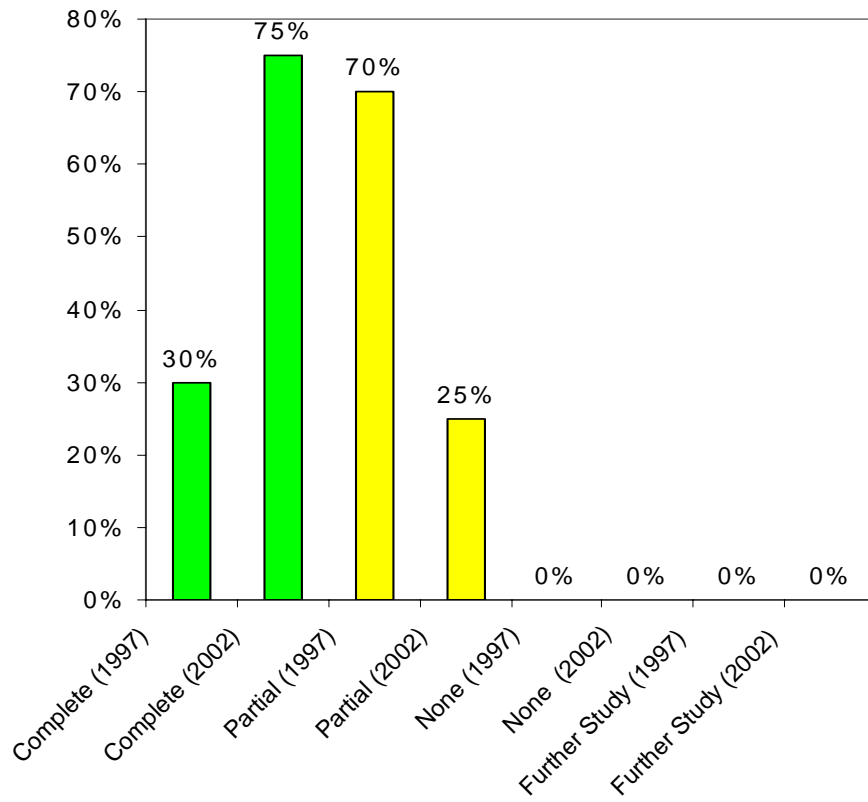
A revised Infection Control OPM as well as new ones regarding Safety Audits (Inspections) and Smoking in an Enclosed Work Space as well as the on-going exhaust removal capital project are examples of some of our best efforts in this area. However, there is still a need to ensure compliance with ADA regulations, maintain CO detectors and verify the completion of annual fire inspections by the Fire Marshal's Office.

A graphical illustration of compliance is shown below:



An illustration comparing the degree of compliance between the 1997 and 2002 editions of the Facility Safety Chapter is shown below:

Comparison of 1997 and 2002 editions



Major goals anticipated to ensure compliance

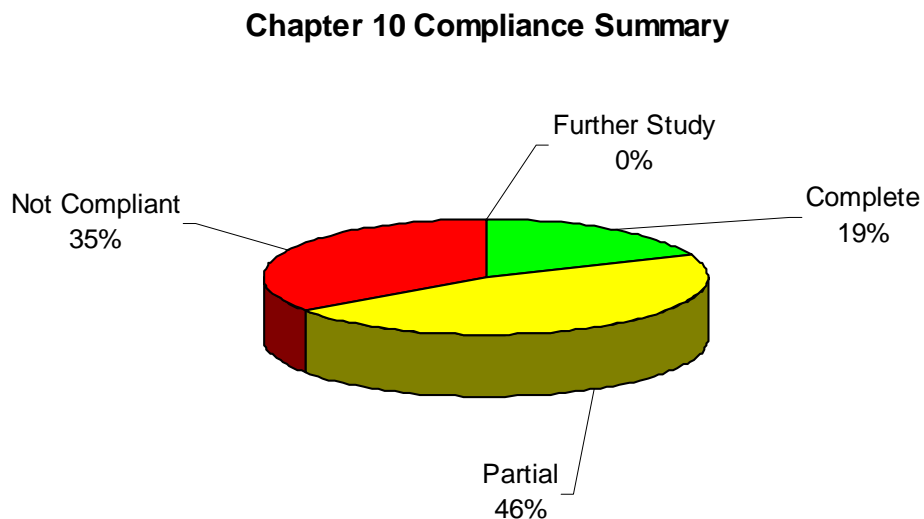
Goal	Capital Outlay
Ensure all fire department facilities comply with all legally applicable health, safety, building and fire code requirements. Currently, all stations are not in compliance with requirements of ADA. Also, inspections by the FMO are conducted irregularly, perhaps every 2-3 years. (9.1.1, 9.1.5)	Undetermined
Develop a policy requiring fire department facilities to maintain a carbon monoxide detector in the living/sleeping area (s) of volunteer fire stations. This capital outlay provides for the on-going maintenance of CO detectors in volunteer fire stations. (9.1.4)	\$1,000
The fire department shall prevent exposure to firefighters and contamination of living and sleeping areas to exhaust emissions. The department is in the last phase of a multi-year project of completing this. (9.1.6)	0
TOTAL:	\$1,000 (minimum)

CHAPTER 10 (MEDICAL AND PHYSICAL REQUIREMENTS)

This chapter addresses medical and physical requirements. The first section discusses medical requirements and the need to comply with NFPA 1582, Standard on Medical Requirements for Fire Fighters. Next, it discusses physical performance requirements including an annual medical certification for the use of respiratory protection. A Health and Fitness program that complies with NFPA 1583, Standard on Health-Related Fitness Programs for Fire Fighters follows. Other components include a confidential health data base, infection control, and a fire department physician.

This chapter requires more attention than any other. In addition to having the least degree of compliance, it also requires the most capital outlay. Examples of areas that warrant attention include compliance with NFPA 1582; the provision for annual medical certification to use respiratory protection; a Health and Fitness Program that meets NFPA 1583, and the establishment of a fire department physician.

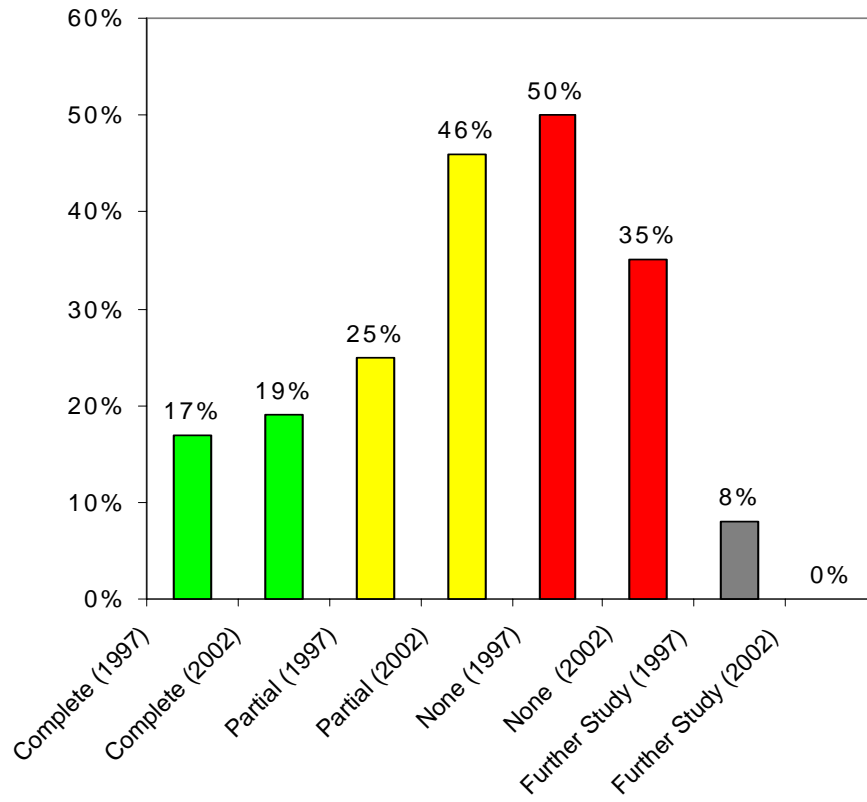
A graphical illustration of compliance is shown below:



An illustration comparing the degree of compliance between the 1997 and 2002 editions of the

Medical and Physical Requirements is shown below:

Comparison of 1997 and 2002 editions



Major goals anticipated to ensure compliance

Goal	Capital Outlay
<p>Ensure candidates and members who engage in fire suppression meet the medical requirements specified in NFPA 1582, Standard on Medical Requirements for Firefighters prior to being medically certified by the fire department physician. Current physicals do not meet this standard. (10.1.1, 10.1.3)</p> <p>Cost is based upon \$500 (per exam) X 1050 (550 career + 500 vol)</p>	\$525,000
<p>Develop physical performance requirements for candidates and members who engage in emergency operations. Consider requiring volunteer participation in fitness portion of current departmental Wellness/Fitness program. (10.2.1)</p>	0
<p>Ensure medical certification for the use of respiratory protection is conducted annually (10.2.2)</p>	Undetermined
<p>Ensure candidates are certified as meeting NFPA 1583, Standard on Health Related Fitness Programs for Fire Fighters prior to entering into a training program to become a firefighter. (10.2.3)</p>	Undetermined
<p>Ensure members who engage in emergency operations are annually evaluated and certified by the fire department as meeting the physical performance requirements specified in NFPA 1583, Standard on Health Related Fitness Programs. (10.2.4)</p>	Undetermined
<p>Ensure members who do not meet the required level of physical performance are not permitted to engage in emergency operations. (10.2.5)</p>	0
<p>Ensure members who are unable to meet the physical performance requirements specified in NFPA 1583 enter a physical performance rehabilitation program to facilitate progress in attaining a level of performance commensurate with the individuals' assigned duties and responsibilities. (10.2.6)</p>	Undetermined
<p>Establish and provide a health and fitness program that meets the requirements of NFPA 1583, Standard on Health-Related Fitness Programs for Firefighters to enable members to develop and maintain an appropriate level of fitness to safely perform their assigned functions. (10.3.1, 10.3.2, 10.3.3, 10.3.4)</p>	Medical = 525,000 Fitness = 250,000 Rehab = \$270,000 Behavioral Health = \$600 Software = \$15,000
<p>Establish a confidential and permanent health file is established and maintained on each individual member. (10.4.1, 10.4.3, 10.4.4)</p>	\$500

Goal	Capital Outlay
Officially designate a physician who will be responsible for guiding, directing, and advising members with regard to their health, fitness and suitability for various duties. (10.6.1, 10.6.2, 10.6.3, 10.6.4, 10.6.4.1, 10.6.5)	\$120,000
TOTAL:	\$1,181,100 (minimal)

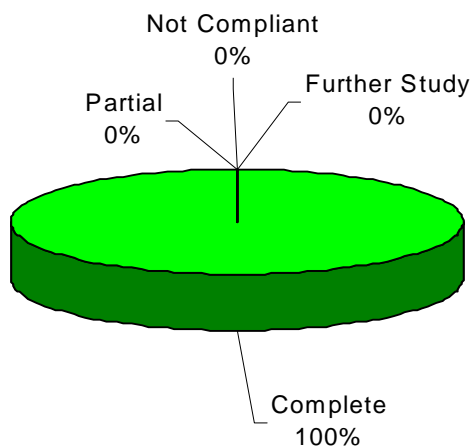
CHAPTER 11 (MEMBER ASSISTANCE AND WELLNESS PROGRAMS)

This is one of the shorter chapters. It requires a member assistance program that identifies and assists members and their immediate families with substance abuse, stress and personal problems that adversely affect fire department work performance. A formal written policy statement about alcoholism, substance abuse, etc. must be adopted. Written rules regarding records and policies governing retention, access, etc. must be in place. A wellness program that identifies physical and mental health risk factors shall provide education and counseling to enhance overall well-being. Lastly, the department must provide a program on the health effects associated with smoking/tobacco use.

As a result of the County's Employee Assistance Program and the member assistance section of the Department's Wellness/Fitness Program, the Department is fully compliant with this section of the NFPA 1500 Standard.

A graphical illustration of compliance is shown below:

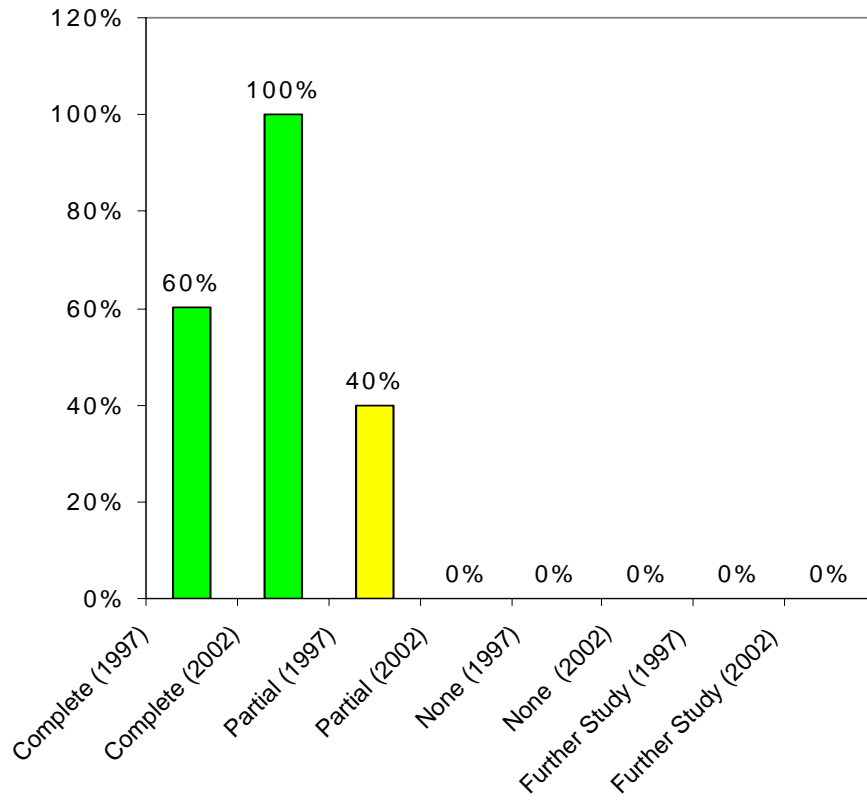
Chapter 11 Compliance Summary



An illustration comparing the degree of compliance between the 1997 and 2002 editions of the

Member Assistance and Wellness Programs Chapter is shown below:

Comparison of 1997 and 2002 editions



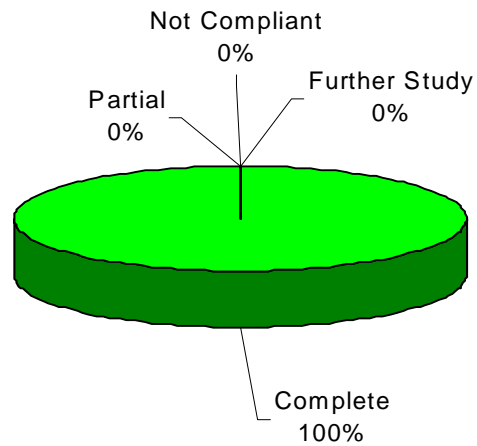
CHAPTER 12 (CRITICAL INCIDENT STRESS PROGRAM)

This chapter only contains four (4) sections. Essentially, it requires a program that is designed to relieve the stress generated by an incident that could adversely affect the psychological and physical well-being of fire department members.

As a result of Department's policies referencing our establishment and activation of our Critical Incident Stress Team, our Department is fully compliant with this section of the Standard.

A graphical illustration of compliance is shown below:

Chapter 12 Compliance Summary



An illustration comparing the degree of compliance between the 1997 and 2002 editions of the Critical Incident Stress Program Chapter is shown below:

Comparison of 1997 and 2002 editions

