

Based on the Fire and Rescue  
Commission's Occupational  
Safety and Health Standard

**FIRE/RESCUE DEPARTMENT** 

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# **Standard Operating Guidelines for Member Safety**

DEVELOPED AS A GUIDE FOR FIRE AND  
RESCUE DEPARTMENTS BY THE NORTH  
CAROLINA FIRE AND RESCUE COMMISSION

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## PREFACE

In an effort to assist the fire and rescue departments within the State, the Fire and Rescue Commission has developed these Standard Operating Guidelines for use with the *Occupational Safety and Health Standard for Fire Departments and Rescue Squads*.

These guidelines are meant to be used by the members of fire and rescue departments as a tool to assist them in determining their compliance with the OS&H Standard. The thirty-four Guidelines address the job areas that are specific to the fire and rescue services. These guidelines will give thorough and specific directions of how to meet the OS&H standard.

Although the OS&H Standard is voluntary to all fire and rescue departments the Fire & Rescue Commission endorses it and encourages all departments to use the Standard and these Guidelines as a means of insuring personnel safety.

### **REVISION NOTE:**

**This document contains revisions to Section 18 (previously titled “Means of Egress”) now titled "Exit Routes, Emergency Action Plans, and Fire Prevention Plans."**

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# STANDARD OPERATING GUIDELINE

Emergency Equipment Care & Maintenance	S.O.G. No.:	Revision:
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## 1. PURPOSE

1.1 In the interest of the department member's health and safety, this document is established to provide guidelines for the acquisition, operation, maintenance, inspection, repair, and safe use of department emergency tools and equipment.

## 2. REFERENCES

- 2.1 North Carolina Fire and Rescue Commission's Occupational Safety and Health Standard for Fire Departments and Rescue Squads, Section 1910.156, Chapter 4 - 5, Tools and Equipment.
- 2.2 Current edition of the National Fire Protection Association's 1931 Standard on Design of and Design Verification Tests for Fire Department Ground Ladders.
- 2.3 Current edition of the National Fire Protection Association's 1932 Standard on Use, Maintenance, and Service Testing of Ground Ladders.
- 2.4 Current edition of the National Fire Protection Association's 1961 Standard on Fire Hose.
- 2.5 Current edition of the National Fire Protection Association's 1962 Standard For the Care, Use, and Maintenance of Fire Hose Including Couplings and Nozzles.
- 2.6 Current edition of the National Fire Protection Association's 1964 Standard for Spray Nozzles (Shut-off and Tip).
- 2.7 Current edition of the National Fire Protection Association's 10 Portable Fire Extinguishers.
- 2.8 Current edition of the National Fire Protection Association's 1901 Standard for Automotive Fire Apparatus.

## 3. OSHA REQUIREMENTS

- 3.1 The department shall develop and implement guidelines for the acquisition, operation, maintenance, inspection, and repair of department tools and equipment in accordance with OSHA 4 - 5, Tools and Equipment.

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## 4. PROCEDURE

- 4.1 The manufacturer's recommendations on operating guidelines, safety, and protective clothing shall be adhered to when operating all emergency tools and equipment.
- 4.2 All equipment utilized for fire fighting and/or rescue operations shall be specifically designed for this type of use.
- 4.3 All equipment carried on department apparatus, or designated for training shall be inspected weekly or within 24 hours after each use.
- 4.4 Inventory and maintenance records shall be maintained on all emergency tools and equipment carried on department apparatus, or designated for training.

# STANDARD OPERATING GUIDELINE

Chemical Protective Clothing for HazMat Response	S.O.G. No.:	Revision:
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## 1. PURPOSE

- 1.1 In the interest of member's health and safety, this document is established to provide guidelines for the safe use of chemical protective clothing for hazardous incidents.

## 2. REFERENCES

- 2.1 North Carolina Fire and Rescue Commission's Occupational Safety and Health Standard for Fire Departments and Rescue Squads, Section 1910.156, Chapter 5 - 6, Chemical Protective Clothing For Hazardous Chemical Emergency Operations.
- 2.2 Current edition of the National Fire Protection Association's 1991 Standard on Vapor-Protective Suits for Hazardous Chemical Emergencies.
- 2.3 Current edition of the National Fire Protection Association's 1992 Standard on Liquid Splash-Protective Suits For Hazardous Chemical Emergencies.
- 2.4 Current edition of the National Fire Protection Association's 1993 Standard on Support Function Protective Garments For Hazardous Chemical Operations.
- 2.5 American Conference Of Governmental Industrial Hygienists, Threshold Limit Values and Biological Exposure Indices.
- 2.6 Dangerous Properties Of Industrial Chemicals, N. Irving Sax.
- 2.7 NIOSH Pocket Guide to Chemical Hazards.
- 2.8 NIOSH/MSHA under 30 CFR 11.
- 2.9 OSHA 1910.120 Subpart H Hazardous Materials
- 2.10 Chapter 4 , North Carolina Fire and Rescue Commission's Occupational Safety and Health Standard Operating Guidelines.

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## 3. OSHA REQUIREMENTS

- 3.1 The department shall develop and implement guidelines for the safe operation, and use of chemical protective clothing as specified by OSHA chapter 5-6, Chemical Protective Clothing For Hazardous Chemical Emergency Operations.

## 4. PROCEDURE

- 4.1 Members who engage in operations during hazardous chemical emergencies that will expose them to known chemicals in vapor form or to unknown chemicals shall be provided with and shall use vapor-protective suits.
- 4.1.1 Vapor-protective suits shall meet the applicable requirements of NFPA 1991, Standard On Vapor-Protective Suits for Hazardous Chemical Emergencies.
- 4.1.2 Prior to use, the incident commander shall consult the technical data package, manufacturer's instructions, and manufacturer's recommendations to insure that the garment is appropriate for the specific hazardous chemical emergency.
- 4.1.3 Members who engage in operations during hazardous chemical emergencies that will expose them to hazardous environments shall be provided with and shall use appropriate SCBA.
- 4.1.4 Additional outside air supplies shall be permitted to be utilized in conjunction with approved SCBA, provided such systems are positive pressure and have been certified by NIOSH/MSHA under 30 CFR 11.
- 4.1.5 Vapor-protective suits shall not be utilized for any fire fighting applications or for protection from radiological, biological or cryogenic agents, or in flammable or explosive atmospheres.
- 4.1.6 Vapor-protective suits shall be permitted to be used for protection from liquid splashes, or solid chemicals and particulates.
- 4.2 Members who engage in operations during hazardous chemical emergencies that will expose them to known chemicals in liquid-splash form shall be provided with and shall use liquid splash-protective suits.

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- 4.2.1 Liquid-splash protective suits shall meet the requirements of NFPA 1992, Standard On Liquid Splash-Protective Suits For Hazardous Chemical Emergencies.
- 4.2.2 Prior to use, the incident commander shall consult the technical data package, manufacturer's instructions, and manufacturer's recommendations to insure that the garment is appropriate for the specific hazardous chemical emergency.
- 4.2.3 Members who engage in operations during hazardous chemical emergencies that will expose them to hazardous environments shall be provided with and shall use appropriate SCBA.
- 4.2.4 Additional outside air supplies shall be permitted to be utilized in conjunction with approved SCBA, provided such systems are positive pressure and have been certified by NIOSH/MSHA under 30 CFR 11.
- 4.2.5 Liquid splash-protective suits shall not be used for protection from chemicals or specific chemical mixtures known or suspected as carcinogens.
- 4.2.6 Liquid splash-protective suits shall not be used for protection from chemicals or specific chemical mixtures with specific toxicity warnings as listed in the American Conference Of Governmental Industrial Hygienists, threshold Limit Values and Biological Exposure Indices.
- 4.2.7 Liquid splash-protective suits shall not be used along any fire fighting applications or for protection from radiological, biological or cryogenic agents, or in flammable or explosive atmospheres.
- 4.3 Members who engage in support function operations of hazardous chemical emergencies shall be provided with and shall wear support function protective garments.
  - 4.3.1 Support function protective garments shall meet the applicable requirements of NFPA 1993, Standard on Support Function Protective Garments For Hazardous Chemical Operations.

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- 4.3.2 Support function protective garments shall be permitted to be used for protection against solid chemicals and particulates outside the hot zone.
- 4.3.3 Prior to use, the incident commander shall consult the technical data package, manufacturer's instructions, and manufacturer's recommendations to insure that the support function protective garment is appropriate for the specific hazardous chemical emergency.
- 4.3.4 Members who engage in support function operations during hazardous chemical emergencies that will expose them to hazardous environments shall be provided with and shall use appropriate SCBA.
- 4.3.5 Additional outside air supplies shall be permitted to be utilized in conjunction with approved SCBA, provided such systems are positive pressure and have been certified by NIOSH/MSHA under 30 CFR 11.
- 4.4 All chemical-protective clothing shall be inspected and maintained as required by the technical data package, manufacturer's instructions, and manufacturer's recommendations.
- 4.5 All chemical-protective clothing that receives a significant exposure to a chemical or chemical mixture shall be disposed of if decontamination will not stop the chemical assault on the garment and the protective qualities will be diminished or nullified.
- 4.6 Disposal of contaminated garments shall be in accordance with applicable state or federal regulations, as instructed by the Safety Officer.
- 4.7 All members of the department and/or rescue squad involved in hazardous chemical emergencies shall receive training in the use, maintenance, and inspection of chemical protective garments.

# STANDARD OPERATING GUIDELINE

Hazardous Materials Decontamination	S.O.G. No.:	Revision:
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## 1. **PURPOSE**

- 1.1 In the interest of the member's health and safety, this document is established to provide guidelines for safely handling decontamination efforts following hazardous materials incidents.

## 2. **REFERENCES**

- 2.1 North Carolina Fire and Rescue Commission's Occupational Safety and Health Standard for Fire Departments and Rescue Squads, Subpart H-Hazardous Materials, 1910.120.
- 2.2 North Carolina Fire and Rescue Commission's Occupational Safety and Health Standard for Fire Departments and Rescue Squads, Section 1910.156, Chapter 5-6.3, Support Function Protective Garments.
- 2.3 Current edition of the National Fire Protection Association's 471 Standard on Responding to Hazardous Materials Incidents.
- 2.4 Current edition of the National Fire Protection Association's 1500 Standard on Fire Department Occupational Safety and Health Program.
- 2.5 NFPA 1993, Standard on Support Function Protective Garments For Hazardous Chemical Operations.

## 3. **OSHA REQUIREMENTS**

- 3.1 The department shall develop and implement a decontamination procedure following emergency response for all hazardous materials response personnel in accordance with OSHA 1910.120(q) and North Carolina Fire and Rescue Commission's Occupational Safety and Health Standard 1910.156, Chapter 5-6.3, Support Function Protective Garments.

## 4. **PROCEDURE**

- 4.1 Specific measures required to decontaminate personnel and/or equipment varies depending on the contaminant, the circumstances of the incident, and level of contamination. These factors must be considered while following the guidelines of this procedure.

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- 4.2 The Incident Commander with consultation of the Hazardous Materials Response Team will appoint a Decontamination Officer at all hazardous emergencies that pose a potential decontamination problem. Only personnel trained to accomplish this task will be appointed.
- 4.3 A Decontamination Area will be assigned and integrated with the management of the established Hazard Zone. All personnel leaving the Hazard Zone are presumed to be contaminated and must exit through the Decontamination Area.
- 4.4 All contaminated items shall remain within the Decontamination Area and/or hazard zone until decontaminated or safely packaged for removal.
- 4.5 Members who provide functional support in the decontamination area shall be provided with and shall use support function protective garments as required by NFPA 1993.
  - 4.5.1 The Decontamination Officer will identify and require the appropriate protective equipment. These personnel and/or equipment may also require decontamination after use.
- 4.6 Any run-off or residue from decontamination procedures must be contained within the Hazard Zone and retained for proper disposal.
- 4.7 Patients in need of medical treatment shall be removed from the source of contamination as quickly as possible, but remain in the Hazard Zone area. It may be necessary to bring treatment personnel in proper PPE into the Hazard Zone to deal with the patients, unless they can be rapidly and effectively decontaminated. Decontamination should occur as quickly as possible.
- 4.8 When personnel are decontaminated, they may be released from the Hazard Zone. The Decontamination Officer may release individuals who are substantially decontaminated and direct them to medical facilities for further evaluation or decontamination. The Decontamination Officer shall determine when tools, equipment, and PPE may be released from the Hazard Zone.

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- 4.9 All Hazardous Materials Response Team members and any other hazardous materials technician level or specialist level personnel performing offensive operations at a hazardous materials emergency shall be directed to undergo medical surveillance and testing at the time of decontamination as well as periodically after the conclusion of the incident by the Decontamination Officer as deemed necessary.
- 4.9.1 A permanent record of the medical surveillance shall be maintained in the office of the Safety Officer.
- 4.10 The Decontamination Officer may impound tools and/or equipment suspected of contamination for later evaluation and have it packaged for storage or transportation.

# STANDARD OPERATING GUIDELINE

Hazardous Materials Response Training	S.O.G. No.:	Revision:
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## 1. PURPOSE

- 1.1 In the interest of the member's health and safety, this document is established to provide training guidelines for emergency response personnel responding to hazardous materials emergencies.

## 2. REFERENCES

- 2.1 North Carolina Fire and Rescue Commission's Occupational Safety and Health Standard for Fire Departments and Rescue Squads, Subpart H-Hazardous Materials, 1910.120(q).
- 2.2 Current edition of the National Fire Protection Association's 471, Standard on Responding to Hazardous Materials Incidents.
- 2.3 Current edition of the National Fire Protection Association's 472 Standard on Professional Competence of Responders to Hazardous Materials Incidents.
- 2.4 Current edition of the National Fire Protection Association's 1500 Standard on Fire Department Occupational Safety and Health Program.
- 2.5 Current edition of the National Fire Protection Association's 1561 Standard on Fire Department Incident Management System.

## 3. OSHA REQUIREMENTS

- 3.1 The department member shall be trained in the duties and functions he or she is required to perform during a hazardous materials emergency response as outlined in OSHA 1910.120(q)(6) and (q)(8) and chapter 3-5, Special Operations.

## 4. PROCEDURE

- 4.1 All personnel responding to hazardous materials emergencies shall be trained in the duties and functions he or she is required to perform during a hazardous materials emergency response as outlined in OSHA 1910.120(q)(6) and (q)(8) before they are permitted to take part in actual emergency operations on an incident.

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- 4.1.1 All responders will maintain training levels according to the duties they are to perform. Records of the methodology used to demonstrate competency in the training levels listed below will be maintained in the department and/or squad by the Training Officer.
  - 4.1.1.1 First responder awareness level.
  - 4.1.1.2 First responder operations level.
  - 4.1.1.3 First responder operations plus level.
  - 4.1.1.4 Hazardous materials technician.
  - 4.1.1.5 Hazardous materials specialist.
- 4.1.2 All responders maintaining training levels shall receive annual refresher training of sufficient content and duration to maintain their competencies.
- 4.2 The Incident Commander of a hazardous materials emergency response will be:
  - 4.2.1 Trained and certified by the Chief Officer to the first responder operations level.
  - 4.2.2 Able to implement the department's ICS.
  - 4.2.3 Able to implement the department's emergency response plan.
  - 4.2.4 All incident commanders who will assume control of a hazardous materials incident will receive annual refresher training in the department's ICS of sufficient content and duration to maintain their competencies.

<b>STANDARD OPERATING GUIDELINE</b>			
Non-emergency Equipment Care & Maintenance		S.O.G. No.:	Revision:
Department		Effective Date:	Page 1 of 2

**1. PURPOSE**

1.1 In the interest of the department member’s health and safety, this document is established to provide guidelines for the safe care and use of department non-emergency tools and equipment.

**2. REFERENCES**

2.1 North Carolina Fire and Rescue Commission’s Occupational Safety and Health Standard for Fire Departments and Rescue Squads, Subpart O - Machinery and Machine Guarding.

2.2 North Carolina Fire and Rescue Commission’s Occupational Safety and Health Standard for Fire Departments and Rescue Squads, Subpart P - Hand Tools.

**3. OSHA REQUIREMENTS**

3.1 The department shall develop and implement guidelines for the safe operation, maintenance, and record keeping of department non-emergency tools and equipment in accordance with OSHA Subpart O - Machinery and Machine Guarding, 1910.211 and Subpart - P, 1910.242 through 1910.244.

**4. PROCEDURE**

4.1 An inventory of all equipment and corresponding maintenance records shall be kept on file in the department.

4.2 All tools and equipment used and/or maintained on department property shall be operated in a safe manner and maintained in a safe condition.

4.2.1 All guards for protection from moving wheels or blades shall be in place and in good condition.

4.2.2 All tools shall be inspected for wear and malfunction before each use by fire department and/or rescue squad personnel.

## STANDARD OPERATING GUIDELINE

Non-emergency Equipment Care & Maintenance	S.O.G. No.:	Revision:
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- 4.2.2.1 Any tool suspected of malfunction shall be repaired by personnel noting the malfunction, or placed out of service for repair, noted on the tool, and recorded into the tool inventory records.
- 4.2.3 Safety devices on tools and equipment shall not be disengaged or bypassed in any way.
- 4.2.4 Necessary protective clothing, such as eye protectors and gloves, as recommended by the manufacturer of certain tools and equipment shall be worn when operating these tools and equipment.
- 4.3 Emergency use tools and equipment shall not be modified from its original design in any way for use in non-emergency procedures unless approval is given from the manufacturer.
- 4.4 Any routine periodic maintenance and/or testing of a tool or piece of equipment as recommended by the manufacturer shall be complied with and entered into the tool inventory.

# STANDARD OPERATING GUIDELINE

Facility Safety	S.O.G. No.:	Revision:
Department	Effective Date:	Page 1 of 2

## 1. **PURPOSE**

- 1.1 In the interest of the department member's health and safety, this document is established to provide guidelines maintaining a safe work environment.

## 2. **REFERENCES**

- 2.1 North Carolina Fire and Rescue Commission's Occupational Safety and Health Standard for Fire Departments and Rescue Squads, Chapter 7, Facility Safety.
- 2.2 North Carolina Fire and Rescue Commission's Occupational Safety and Health Standard for Fire Departments and Rescue Squads, Subpart S - Electrical.
- 2.3 North Carolina Fire and Rescue Commission's Occupational Safety and Health Standard for Fire Departments and Rescue Squads, Subpart N - Materials Handling.
- 2.4 North Carolina Fire and Rescue Commission's Occupational Safety and Health Standard for Fire Departments and Rescue Squads, Subpart G - OH and Environment, 1910.94.
- 2.5 Current edition of the National Fire Protection Association's 1500 Standard on Fire Department Occupational Safety and Health Program.
- 2.6 Current edition of the National Fire Protection Association's 101 Standard on Life Safety Code.
- 2.7 North Carolina State Building Codes, Volume 1 and 5.

## 3. **OSHA REQUIREMENTS**

- 3.1 The department shall maintain a safe working environment within the facility in accordance with OSHA chapter 7, Facility Safety; OSHA Subpart N - Materials Handling, 1910.176; OSHA Subpart S - Electrical; OSHA Subpart G - OH and Environment, 1910.94

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**4. PROCEDURE**

- 4.1 All department facilities shall comply with all legal applicable health, safety, building, and fire code requirements of the NC State Building and Fire Codes, Vol. 1 and 5.
- 4.2 Any work done on electrical, or other hazardous panels or equipment shall have a lock out tag installed while work is being done.
  - 4.2.1 The tag shall be removed only after completion of work and panels or equipment is placed back in service.
- 4.3 All existing and new buildings shall be provided with smoke detectors in work, sleeping, and general storage areas.
- 4.4 Anytime an apparatus is started within the building, the building exhaust system or any other adequate means of ventilation shall be used.
- 4.5 Apparatus and station floors shall remain free from slippery substances and obstructions such as water, oil, hydraulic fluid, etc.
- 4.6 Traffic areas, hallways, stairs, etc. shall remain clear of unnecessary obstacles and obstructions and in good repair.
- 4.7 Where mechanical handling equipment is used, safe clearances shall be maintained around equipment, through doorways, and around loading docks.
- 4.8 Storage areas shall be kept clean and free of floor obstructions and obstacles.
  - 4.8.1 Bags, containers, bundles, and boxes shall be stacked, blocked, interlocked, and limited in height so they are stable and secure from falling.
- 4.9 All department facilities shall have a posted evacuation plan.
  - 4.9.1 There shall be a method, depending on the facility, of notifying members of the need for evacuation from the building.

# STANDARD OPERATING GUIDELINE

Storage of Hazardous Materials	S.O.G. No.:	Revision:
Department	Effective Date:	Page 1 of 2

## 1. PURPOSE

- 1.1 In the interest of the department member's health and safety, this document is established to provide guidelines for safely storing and maintaining compressed gases and flammable and combustible liquids.

## 2. REFERENCES

- 2.1 North Carolina Fire and Rescue Commission's Occupational Safety and Health Standard for Fire Departments and Rescue Squads, Subpart H-Hazardous Materials.
- 2.2 North Carolina Fire and Rescue Commission's Occupational Safety and Health Standard for Fire Departments and Rescue Squads, Subpart C - General Safety, 1910.20
- 2.3 Hazardous Materials Regulations of the Department of Transportation (49 CFR parts 171-179 and CFR part 103).
- 2.4 Compressed Gas Association Pamphlets P-1-1965, S-1.1-1963 and 1965 addenda, and S-1.2-1963.

## 3. OSHA REQUIREMENTS

- 3.1 The department shall store and maintain compressed gases and flammable and combustible liquids in accordance with OSHA Subpart H - Hazardous Materials, 910.101, 910.106, and OSHA Subpart C - General Safety, 1910.20.

## 4. PROCEDURE

- 4.1 All known hazardous materials stored on the department property will have current MSDS's maintained in an MSDS notebook or other means, such as computerized disc, suitable for viewing.
  - 4.1.1 MSDS records will be kept on file in the office of the Safety Officer.
  - 4.1.2 The MSDS shall be readily accessible to all employees in the work area at all times.

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Storage of Hazardous Materials	S.O.G. No.:	Revision:
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- 4.2 All known hazardous materials stored on the department property will be identified and recorded for inventory.
  - 4.2.1 Records will be kept on file in the office of the Safety Officer and at the location where the materials are stored and used.
  - 4.2.2 The Hazardous Materials Inventory Records do not include any materials which are exempt under either the Federal or the State Standards.
  - 4.2.3 These records will be reviewed and updated on an annual basis or when hazardous materials are added or removed from the workplace.
- 4.3 All buildings of the department will be identified, labeled, and placarded as necessary.
- 4.4 All known hazardous materials stored on the department property will be tagged or marked accordingly with:
  - 4.4.1 Content identity.
  - 4.4.2 Date acquired.
  - 4.4.3 Appropriate hazard warnings.
  - 4.4.4 Name and address of manufacturer.
- 4.5 All compressed gas cylinders and/or containers will be secured in a safe manner.
- 4.6 All compressed gas cylinders and/or containers will have a pressure relief valve installed and maintained properly.
- 4.7 The Safety Officer or his designee will periodically visually inspect all compressed gas containers and/or cylinders and flammable and combustible liquids to determine that they are being stored in a safe manner and the containers and/or cylinders are in good condition.

# STANDARD OPERATING GUIDELINE

Hazardous Materials Response	S.O.G. No.:	Revision:
Department	Effective Date:	Page 1 of 3

## 1. PURPOSE

- 1.1 In the interest of the member's health and safety, this document is established to provide guidelines for safely handling hazardous materials incidents while protecting lives, property and the environment.

## 2. REFERENCES

- 2.1 North Carolina Fire and Rescue Commission's Occupational Safety and Health Standard for Fire Departments and Rescue Squads, Subpart H-Hazardous Materials, 1910.120.
- 2.2 Current edition of the National Fire Protection Association's 471 Standard on Responding to Hazardous Materials Incidents.
- 2.3 Current edition of the National Fire Protection Association's 1500, Standard on Fire Department Occupational Safety and Health Program.
- 2.4 Current edition of the National Fire Protection Association's 1561 Standard on Fire Department Incident Management System.
- 2.5 Current edition of the National Fire Protection Association's 1993 Standard on Support Function Protective Garments For Hazardous Chemical Operations.

## 3. OSHA REQUIREMENTS

- 3.1 The fire department shall develop and implement an emergency response procedure for all hazardous materials response personnel in accordance with OSHA 1910.120 and chapter 5-6.3, Support Function Protective Garments.

## 4. PROCEDURE

- 4.1 All emergency responders and their communications shall be coordinated and controlled with the Incident Command System.
- 4.2 The first arriving unit should select a response route that allows an upwind and uphill approach to the incident.

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- 4.3 Command shall be set and size-up begun while consciously avoiding committing the unit to a dangerous, unpredictable situation.
  - 4.3.1 All personnel will be in full PPE, and the number of personnel conducting the size-up shall be limited to as few as possible.
  - 4.3.2 Access any visible activity taking place. Evaluate and obtain as much information as possible including, but not limited to:
    - 4.3.2.1 Civilians involved and location.
    - 4.3.2.2 Containers - size and shape.
    - 4.3.2.3 Placards and/or labels; shipping papers; MSDS's; identifying colors and/or markings.
  - 4.3.3 The Incident Commander shall advise all other incoming units to stage until instructed to take specific action.
  - 4.3.4 Secure the incident area, and establish a Hazard Zone and Evacuation Zone if necessary. Stay out of spill, vapor clouds and/or runoff.
  - 4.3.5 Constantly re-evaluate and develop an action plan to identify the method of hazard control and identify the resources available and/or required to implement the action plan.
  - 4.3.6 The Hazardous Materials Response Team shall be assigned to any situation involving direct contact with hazardous materials or any offensive actions involving hazardous materials. Await their arrival as a resource.
- 4.4 If rescue operations are required, do not attempt rescue until all hazards are recognized. Be reasonably sure that there is a live victim before a rescue attempt is made, and do not attempt recovery of an obvious DOA until the scene is under control. Use control agents such as water or foam cautiously to protect trapped victims and ensure these agents are compatible with the hazards involved.
- 4.5 Limit all control efforts to the specific knowledge of the hazards involved, the proper PPE to use, and the proper control agents for those hazards.

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- 4.6 If a Hazard Zone is established around a hazardous materials emergency, access to this zone will be strictly controlled by the assigned Safety Officer. Only those personnel with a specific assigned task and the proper training as outlined in OSHA 1910.120 will be allowed entry. Appropriate PPE will be provided depending on the protection levels required. Entry and exit of the hazard zone of all personnel will be monitored by assigned Hazardous Materials Response Team personnel.
  
- 4.7 If an Evacuation Zone is established around a hazardous materials emergency, the Incident Commander will recommend protective action of the civilian population in the area. Evacuation may be required of all civilians or only those susceptible to respiratory problems.
  
- 4.8 A Decontamination area will be established by the Incident Commander in consultation with the Hazardous Materials Response Team to implement appropriate decontamination measures of victims, response personnel, tools, and equipment.
  - 4.8.1 Members who provide functional support in the decontamination area shall be provided with and shall use support function protective garments as required by NFPA 1993.

<b>STANDARD OPERATING GUIDELINE</b>			
Confined Space Rescue		S.O.G. No.:	Revision:
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**1. PURPOSE:**

1.1 To provide and acquaint all members who are engaged in or exposed to confined space incidents with the policies and procedures on the techniques of successfully conducting an operation at a confined space incident.

**2. REFERENCES**

- 2.1 Current edition of the National Fire Protection Association’s 1983, Standard on Life Safety Rope and System Components.
- 2.2 Current edition of the National Fire Protection Association’s 1561, Standard on Fire Department Incident Management System.
- 2.3 North Carolina Fire and Rescue Commission Department Occupational Safety and Health Program for Fire Departments and Rescue Squads, Subpart J - Environmental Controls.
- 2.4 North Carolina Fire and Rescue Commission Department Occupational Safety and Health Program for Fire Departments and Rescue Squads, Subpart L - Fire Protection, Chapter 6, Emergency Operations.

**3. OSHA REQUIREMENTS**

3.1 The department will provide members with proper training and education in the accordance with OSHA 29 CFR 1910.146, Permit Required Confined Spaces.

**4. PROCEDURE**

4.1 The department will provide training for all members in meeting their responsibilities at confined space incidents that is commensurate with the identified operational capability. The minimum training for all members shall be at the awareness level. Members expected to perform at a higher operational level shall be trained to that level.

# STANDARD OPERATING GUIDELINE

Confined Space Rescue	S.O.G. No.:	Revision:
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- 4.2 The department will establish written operating procedures consistent with one of the following operational levels.
- 4.2.1 Awareness Level - This level represents the minimum capability to identify confined space emergencies, their hazards and to recognize the need for additional resources capable of successfully conducting a confined space rescue. Members trained at this level shall be competent in recognizing the need for a confined space operation, and be capable of conducting an approach assessment and resource assessment.
  - 4.2.2 Operations Level - This level represents the minimum capability to provide basic rigging at a confined space incident. This may include but not limited to operating on a haul team, as well as other support functions.
  - 4.2.3 Technician Level - This level represents the minimum capability to provide safe and effective rescue operations at a confined space incident requiring the placement of a rescuer in a position that would be considered a “Permit Required Confined Space.”
- 4.3 Members of departments will perform rescue operations at a confined space incident in a safe manner consistent with the identified level of training.
- 4.4 Operational procedures shall not exceed the identified level of capability.
- 4.5 The department will provide the necessary continuing education to maintain all requirements of the member’s identified level of capability.
- 4.6 The department is responsible for the documentation of all required training. This documentation shall contain each recipient’s name, the signatures or initials of the trainers, the dates of training, an outline of the training conducted, and resource materials used to develop the training. This documentation will be maintained and available for inspection by individual team members and their authorized representatives.
- 4.7 Each member of the department operating at the technician level of capability will practice making permit space rescues at least once every 12 months, by means of simulated rescue operations in which they remove dummies, mannequins, or actual persons from the actual permit spaces or from representative permit spaces.

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Representative permit spaces shall, with respect to opening size, configuration, and accessibility, simulate the types of permit spaces from which rescue is to be performed.

- 4.8 Each member of the department operating at the technician level of capability will adhere to all other policies as outlined in 29 CFR 1910.146 - "Permit Required Confined Spaces".
- 4.9 The department will provide training for implementing an Incident Command System (ICS) for confined space incidents that meets the requirements of NFPA 1561, "Standard on Fire Department Incident Management Systems."

**NOTE: Reference Chapter 19, Incident Command Standard Operating Guideline.**

- 4.10 The department will provide training for recognizing the difference between a "Rescue" and a "Recovery" as it relates to confined space incidents.
- 4.11 The department will provide training in the procedures to identify and control hazards, and procedures for making the general area safe and the rescue area safe as it relates to confined space incidents.
- 4.12 The department will be trained to recognize the unique hazards associated with the actual entry and rescue from elevated man made and natural structures as it relates to confined space incidents.
- 4.13 At confined space incidents, the incident commander will assign a safety officer with specific responsibility for the identification, the evaluation, and when possible, the correction.
- 4.14 OSHA has characterized a confined space as having adequate size and configuration for employee entry; and having limited means of access or egress, and not being designed for continuous human occupancy.
- 4.15 Once the department determines that the space meets the 1910.146 confined space requirements, they then need to determine whether or not it is a permit-required confined space. To have a permit-required confined space at least one of the following conditions must be met.
  - 4.15.1 It contains or has the potential to contain a hazardous atmosphere.

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- 4.15.2 It contains a material that has the potential for engulfing a worker.
- 4.15.3 It has an internal configuration that might cause a worker to be trapped or asphyxiated by inwardly converging walls, or by a floor that slopes downward and tapers to a smaller cross-section, or it contains any other recognized serious safety or health hazard.
- 4.16 Within the preamble of the standard, OSHA defines the term hazardous atmosphere as an atmosphere that may expose employees to the risk of death, incapacitation, impairment of ability of self-rescue, serious injury, or acute illness due to:
  - 4.16.1 Flammable gas, vapor or mist in excess of 10 percent of the lower flammable limit (LFL).
  - 4.16.2 Airborne combustible dust at a concentration that exceeds its LFL.
  - 4.16.3 Atmospheric oxygen concentration that is less than 19.5 percent or greater than 23.5 percent.
  - 4.16.4 Atmospheric concentration of any substance for which a dose or a permissible exposure limit is published in Subpart G or Subpart Z of 1910 and that could result in employee exposure above the pertinent dose limit or permissible exposure limit; and any other atmospheric condition recognized as immediately dangerous to life or health.

# STANDARD OPERATING GUIDELINE

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## Appendix A

Recommended equipment shall consist of but not be limited to the following equipment meeting all applicable standards.

1. Intrinsically safe flashlights with extra batteries
2. Intrinsically safe radios (throat/ear microphones)
3. Intrinsically safe air monitoring equipment
4. Intrinsically safe exhaust fans with trunk hose
5. Supplied air respirator (minimum of 300 feet of airline)
6. Compressor/manifold for same as above
7. AC Hotstick
8. 2 - Class III harnesses
9. 100 feet 7mm prussik cord
10. 100 feet 2 in. tubular webbing
11. 100 feet 1 in. tubular webbing
12. Litter suitable for use in Confined Space environment.
13. Wristlets
14. Tripod (10 - 12 feet tall)
15. Hoist for tripod
16. Fall arrest device for tripod
17. 6 - 1 in. x 4 ft. steel pickets
18. 8 lb. sledgehammer
19. Lock out tags
20. Locks for lockout tags
21. Whistles/fluorocarbon horns

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22. PPV blower
23. PAL/PASS devices
24. 2 - 6 in. double pulleys
25. 2 - 6 in. single pulleys
26. 2 - 1/2 in. rope ascending device
27. 1 - Knot passing pulley
28. 12 - Steel carabiners
29. 12 - Aluminum carabiners
30. 600 ft. x 1/2 in. static lifesafety rope
31. 2 - Rescue "figure of eight" descenders
32. 1 - 14 in. brake bar rack
33. Rigging Plate
34. 2 - 14' Straight ladder
35. Mannequin suitable for fire/rescue training
36. 4 - Self contained breathing apparatus
37. 4 - spare cylinders for breathing apparatus
38. Fire extinguisher
39. Roll "Caution" tape

# STANDARD OPERATING GUIDELINE

Environmental Controls	S.O.G. No.:	Revision:
Department	Effective Date:	Page 1 of 2

## 1. **PURPOSE:**

- 1.1 To provide and acquaint all department members with the policies and procedures on the techniques of successfully maintaining sanitary conditions.

## 2. **REFERENCES**

- 2.1 North Carolina Fire and Rescue Commission Department Occupational Safety and Health Program for Fire Departments and Rescue Squads, Subpart J - Environmental Controls.
- 2.2 American National Standards Institute - American National Standard for Personal Protection - Lockout/Tagout of Energy Sources - Minimum Safety Requirements Z244.1-1982.
- 2.3 The current edition of the National Fire Protection Association 70E Standard, Part II Lockout Safety Related Work Practices.

## 3. **OSHA REQUIREMENTS**

- 3.1 The department will provide members with proper training and education in the accordance with OSHA 29 CFR 1910.141, 1910.144, 1910.145, & 1910.147.

## 4. **PROCEDURE**

- 4.1 The department will be kept clean to maintain a sanitary condition.
- 4.2 The department will require that any food handling shall be carried out in accordance with sound hygiene principles.
- 4.3 The department will require that emergency stop features, safety cans, dangerous areas, shall be color coded for physical hazards (1910.144), and that members observe these features.
- 4.4 The department will require that a hazardous energy lockout/tagout procedure for maintenance and emergencies shall be developed and implemented (1910.147).

## STANDARD OPERATING GUIDELINE

Environmental Controls	S.O.G. No.:	Revision:
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- 4.5 The department will provide training in procedures to identify and control hazards, and procedures for making the general area and rescue area safe as it relates to hazardous energy.
  - 4.5.1 That energy sources be blocked for maintenance.
  - 4.5.2 That stored energy be dissipated prior to beginning maintenance.
  - 4.5.3 That physical means or devices be used to secure the energy sources.
  - 4.5.4 Verification that the energy sources have been isolated prior to starting work.
  - 4.5.5 Verification that all personnel are clear of hazards before re-energizing the machines or systems.
  - 4.5.6 Assurance that the procedures for lockout/tagout have been documented.
  - 4.5.7 That only trained personnel implement the recommended guidelines.

# STANDARD OPERATING GUIDELINE

Ropes, Harnesses & Hardware	S.O.G. No.:	Revision:
Department	Effective Date:	Page 1 of 4

## 1. **PURPOSE:**

- 1.1 To provide and acquaint all members with the policies and procedures on the use of ropes, harnesses and hardware.

## 2. **REFERENCES**

- 2.1 Current edition of the National Fire Protection Association's 1983, Standard on Life Safety Rope and System Components.
- 2.2 Current edition of the National Fire Protection Association's 1561, Standard on Fire Department Incident Management System.
- 2.3 North Carolina Fire and Rescue Commission Department Occupational Safety and Health Program for Fire Departments and Rescue Squads, Page 305 - 5-8.1 - Ropes, Harnesses and Hardware.
- 2.4 North Carolina Fire and Rescue Commission Department Occupational Safety and Health Program for Fire Departments and Rescue Squads, Subpart L - Fire Protection, Chapter 6, Emergency Operations.

## 3. **OSHA REQUIREMENTS**

- 3.1 The department will provide members with proper training and education in the accordance with OSHA 29 CFR 1926 Subpart M (effective February 1995).

## 4. **PROCEDURE**

- 4.1 The department members will be fully trained in the care and use of the ropes, harnesses and hardware available for their use.
- 4.2 The department members will use rope as their life safety rope meeting NFPA 1983.
- 4.3 The department members will use proper care at all times to avoid damaging the rope. Members should avoid sharp bends and edges, rough surfaces, contact with chemicals, excessive heat, standing on a rope, and prolonged exposure to sunlight.

# STANDARD OPERATING GUIDELINE

Ropes, Harnesses & Hardware	S.O.G. No.:	Revision:
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- 4.4 The department members will be fully trained in the inspection and maintenance of the ropes, harnesses and hardware available for their use. Ropes shall be inspected quarterly and after each use.
- 4.5 Ropes, harnesses and hardware will be used and maintained in accordance with manufacturer's recommendations. A maintenance and inspection program shall be established for ropes, harnesses and hardware. Specific responsibilities shall be assigned for maintenance and inspection.
- 4.6 A rope history log will be maintained on each life safety rope, (see appendix A). This log will record rope usage and periodic inspections. Information to be recorded includes date, rope condition, type of use, and inspector's name.
- 4.7 Ropes, harnesses and hardware will be cleaned according to the manufacturer's recommendations.
- 4.8 Ropes, harnesses and hardware will meet the requirements of NFPA 1983, "Standard on Fire Service Life Safety Rope and System Components," 1995 edition.
- 4.9 Life safety ropes may be considered for reuse if ALL of the following conditions are met:
- a. The rope has not been visibly damaged.
  - b. The rope has not been exposed to heat, direct flame, impingement, or abrasion.
  - c. The rope has not been subjected to an impact load.
  - d. The rope has not been exposed to any form of chemical or other material that may deteriorate the rope.
  - e. The rope passes an inspection following the procedures outlined in NFPA 1983, "Standard on Fire Service Life Safety Rope and System Components," 1995 edition.

# STANDARD OPERATING GUIDELINE

Ropes, Harnesses & Hardware	S.O.G. No.:	Revision:
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- 4.10 The department members who are engaged in or exposed to high angle rescue techniques will as a minimum wear the following protective clothing: helmets which meet NFPA 1972, be approved by ANSI or OSHA; gloves (leather palm - minimum), boots offering suitable protection to the feet, and the appropriate eye protection (ANSI approved safety glasses).
- 4.11 The department members will wear all the protective clothing at all times when involved in, or exposed to the hazards of high angle rescue techniques or in the hazardous area at an emergency scene.
- 4.12 Any department member that purchases their own ropes, harnesses or hardware, will only be allowed to use such ropes, harnesses or hardware if it meets the standards set forth in these procedures.
- 4.13 The department will provide training for implementing an Incident Command System (ICS) for rope rescue incidents that meets the requirements of NFPA 1561, "Standard on Fire Department Incident Management Systems." Note: Reference Chapter 19, Incident Command Standard Operating Guideline.
- 4.14 The department will provide training for recognizing the difference between a "Rescue" and a "Recovery" as it relates to rope rescue incidents, and members performing rope rescue will be required to complete it.
- 4.15 The fire department and/or rescue squad will provide training in the procedures to identify and control hazards, and procedures for making the general area safe and associated with the actual entry and rescue from elevated man made and natural structures as it relates to rope rescue incidents, and members performing rope rescue will be required to complete it.
- 4.16 At rope rescue incidents, the incident commander will assign a safety officer with specific responsibility for the identification, the evaluation, and when possible, the correction of hazardous conditions and unsafe practices.

# STANDARD OPERATING GUIDELINE

Ropes, Harnesses & Hardware	S.O.G. No.:	Revision:
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## Appendix A

Manufacturer: \_\_\_\_\_

Purchased from: \_\_\_\_\_

Purchase Date: \_\_\_\_\_

Date in service: \_\_\_\_\_

Equipment type: \_\_\_\_\_

Identifying numbers: \_\_\_\_\_

Identifying color and markings: \_\_\_\_\_

Date used: \_\_\_\_\_

Incident location: \_\_\_\_\_

Type of use: \_\_\_\_\_

Date inspected: \_\_\_\_\_

Inspector's Name: \_\_\_\_\_

# STANDARD OPERATING GUIDELINE

Record Keeping	S.O.G. No.:	Revision:
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## 1. PURPOSE

- 1.1 In the interest of the member's health and safety, this document is established to provide recommendations for keeping and maintaining records involving personnel, vehicles, and equipment.

## 2. REFERENCES

- 2.1 North Carolina Fire and Rescue Commission's Occupational Safety and Health standard for Fire Departments and Rescue Squads, chapter 2-5, Records.
- 2.2 North Carolina Fire and Rescue Commission's Occupational Safety and Health Standard for Fire Departments and Rescue Squads, Subpart C - General Safety.
- 2.3 Current edition of the National Fire Protection Association's 1500 Standard on Fire Department Occupational Safety and Health Program.
- 2.4 Current edition of the National Fire Protection Association's 1931 Standard on Design of and Design Verification Tests for Fire Service Ground Ladders.
- 2.5 Current edition of the National Fire Protection Association's 1932 Standards on Use, Maintenance, and Service Testing of Ground Ladders.
- 2.6 Current edition of the National Fire Protection Association's 1961 Standard On Fire Hose.
- 2.7 Current edition of the National Fire Protection Association's 1962 Standard For the Care, Use, and Maintenance Of Fire Hose Including Couplings and Nozzles.
- 2.8 Current edition of the National Fire Protection Association's 1964 Standard For Spray Nozzles (Shut-off and Tip).
- 2.9 Current edition of the National Fire Protection Association's 1901 Standard For Automotive Fire Apparatus.

<b>STANDARD OPERATING GUIDELINE</b>			
Record Keeping	S.O.G. No.:	Revision:	
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**3. OSHA REQUIREMENTS**

3.1 The department shall keep and maintain records involving personnel, vehicles, and equipment in accordance with OSHA chapter 2-5, Records and OSHA Subpart - C, General Safety, 1910.22.

**4. PROCEDURE**

- 4.1 The department shall maintain permanent records of all accidents, injuries, or deaths that are, or might be, job related.
  - 4.1.1 When a member, employee, or designated representative, requests access to any of the his/her records, the department will assure that access is provided in a reasonable time, place, and manner.
  - 4.1.2 If a person leaves the department for another, the department will transfer those relevant records to the new department.
  - 4.1.3 The department shall maintain those records for a period of thirty (30) years for the individual if they leave and there is no successor employer or department.
- 4.2 The department and/or rescue squad shall maintain individual records of any occupational exposure to known or suspected toxic products or infectious or contagious diseases, and these will be available for inspection.
- 4.3 The department will maintain training records for each member indicating dates, subjects covered, satisfactory completion and certifications achieved.
- 4.4 The department shall insure that inspection, maintenance, repair, and service records are maintained for all vehicles and equipment used for emergency operations and training.
- 4.5 Driver-operators will properly complete vehicle check records whenever they are assigned to the vehicle, or use it.
- 4.6 All equipment received by department personnel shall be recorded in that person's name in the personnel clothing and equipment inventory.

## STANDARD OPERATING GUIDELINE

Record Keeping	S.O.G. No.:	Revision:
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- 4.7 All department facilities will maintain Material Safety Data Sheets of all hazardous chemicals on location in inventory.
  - 4.7.1 The MSDS sheets will be readily accessible to all employees in the work area at all times.
  - 4.7.2 A copy of each MSDS will be forwarded to and kept on file in the office of the Safety Officer, or Chief.

<b>STANDARD OPERATING GUIDELINE</b>			
Recording & Reporting Occupational Injuries & Illness	S.O.G. No.:	Revision:	
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**1. PURPOSE**

1.1 In the interest of members health and safety, this document is established to provide and acquaint members with the policies and procedures for reporting injuries and illnesses.

**2. REFERENCES**

- 2.1 Current edition of the National Fire Protection Association’s 1500, Standard on Fire Department Occupational Safety and Health Program.
- 2.2 North Carolina Fire and Rescue Commission Department Occupational Safety and Health Program for Fire Departments and Rescue Squads, 1904, 1904.2, 1904.5, and 1904.6.

**3. OSHA REQUIREMENTS**

3.1 The department shall post and maintain OSHA Form 200 for all injuries and illnesses in accordance with OSHA 1904.2.

**4. PROCEDURE**

- 4.1 An OSHA Form 200, showing injuries will be displayed in the department at \_\_\_\_\_ (location)
- 4.2 The department will establish and maintain records of injuries and illnesses on a calendar year basis. This will be displayed on Form 200.
  - 4.2.1 All records will be retained for a period of five years following the end of the year to which they relate.
  - 4.2.2 Upon request the department will provide or make available these records to any member, employee, former employee and their representative for examination and copying.

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Recording & Reporting Occupational Injuries & Illness	S.O.G. No.:	Revision:
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4.3 The chief or officer in charge will report within 8 hours after the death of a work related incident, or other hospitalization of three (3) or more members/employees.

4.3.1 This will be reported by telephone or in person to the area office of the Occupational Safety and Health Administration that is nearest the site of the incident.

4.3.2 The department will furnish the following information:

4.3.2.1 Establishment name

4.3.2.2 Location of incident

4.3.2.3 Time of incident

4.3.2.4 Number of fatalities or hospitalized employees

4.3.2.5 Contact person with phone numbers

4.3.2.6 Brief description of the incident

# STANDARD OPERATING GUIDELINE

Accountability	S.O.G. No.:	Revision:
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## 1. **PURPOSE**

- 1.1 The purpose of this document is to insure that all members understand the department's accountability system while operating on an emergency incident or at training sessions.

## 2. **REFERENCES**

- 2.1 North Carolina Fire and Rescue Commission Department Occupational Safety and Health Program for Fire Departments and Rescue Squads, Subpart L, Accountability, Section 1910.156, Chapter 6, Section 6-3, Accountability.
- 2.2 Current edition of the National Fire Protection Association's 1500 Standard on Fire Department Occupational Safety and Health, Section 1910.156, Chapter 6, Section 6-3, Accountability.
- 2.3 Current edition of the National Fire Protection Association's 1561 Standard on Fire Department Incident Management System, Section 1910.156, Chapter 2, Section 2-6, Personnel Accountability.
- 2.4 Current edition of the National Fire Protection Association's 1403 Standard on Live Fire Training Evolution's

## 3. **OSHA REQUIREMENTS**

- 3.1 The department shall establish written standard operating procedures for a personnel accountability system in accordance with Section 4-3 of NFPA 1561, Standard on Fire Department Incident Management System that provides for the tracking and inventory of all members operating at an emergency incident.

## 4. **REQUIRED EQUIPMENT**

- 4.1 Current edition National Fire Protection Association 1500
- 4.2 Current edition National Fire Protection Association 1561
- 4.3 Current edition National Fire Protection Association 1403

# STANDARD OPERATING GUIDELINE

Accountability	S.O.G. No.:	Revision:
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## 5. **PROCEDURE**

- 5.1 All department members will participate in training on the department's accountability system.
- 5.2 The accountability system will be used on all emergency incidents and all training where members need to be accounted for (such as live burn evolution's, confined space, etc.)
- 5.3 All members when operating on emergency incidents will follow and abide by the accountability system.
- 5.4 The incident commander will be responsible for the overall accountability of personnel operating at the incident.
- 5.5 The incident Commander will initiate an accountability inventory worksheet at the very beginning of operations and will maintain that system throughout the operations.
- 5.6 The lead Instructor on Live Burn evolution's, confined space and other training exercises that require an accountability system will initiate an accountability and inventory worksheet at the beginning of the exercise and maintain that system throughout the operations.
- 5.7 Officers that are supervising crews at emergency incidents will be responsible for the accountability of those personnel operating under them, and will immediately report any discrepancies to the Incident Commander.

# STANDARD OPERATING GUIDELINE

Drivers/Operators	S.O.G. No.:	Revision:
Department	Effective Date:	Page 1 of 5

## 1. PURPOSE

- 1.1 The purpose of this document is to provide to the members of the department guidelines in the proper driving and operating of department and/or squad vehicles.

## 2. REFERENCES

- 2.1 North Carolina Fire and Rescue Commission Department Occupational Safety and Health Program for Fire Departments and Rescue Squads, Subpart L, Fire Protection, Section 1910.156, Chapter 4, Driver/Operators of Fire Department Vehicles.
- 2.2 Current edition National Fire Protection Association 1002, Standard for Fire Apparatus Driver/Operator Professional Qualifications.
- 2.3 Current edition National Fire Protection Association 1500, Fire Department Occupational Safety and Health, Chapter 4, Sections 4-2, 4-3, and 4-4.
- 2.4 Current edition of North Carolina Motor Vehicle Laws.

## 3. OSHA REQUIREMENTS

- 3.1 Department vehicles shall be operated only by members who have successfully completed an approved driver training program or by student drivers who are under the supervision of a qualified driver.

## 4. REQUIRED EQUIPMENT

- 4.1 Training Records of Driver/Operators.
- 4.2 Current editions of National Fire Protections Association Standards 1002
- 4.3 Current editions of National Fire Protections Association Standards 1500
- 4.4 Current edition of North Carolina Motor Vehicle Laws

<b>STANDARD OPERATING GUIDELINE</b>			
Drivers/Operators		S.O.G. No.:	Revision:
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**5. PROCEDURE**

- 5.1 All department members that drive or operate department vehicles will be trained in accordance with the North Carolina Fire and Rescue Commission’s EVD Program. Proper records will be maintained of training.
- 5.2 All department members that drive department vehicles will have a valid North Carolina Drivers Licenses that is required for the size and weight of the vehicle being driven.
- 5.3 All department members that drive or operate department vehicles will have a complete understanding of the guidelines on the driving and operating of same.
- 5.4 All department members will operate vehicles in compliance with all traffic laws, including sections pertaining to emergency vehicles, and any requirement of the department.
- 5.5 Drivers of department vehicles will be directly responsible for the safe and prudent operation of the vehicles under all conditions. When the driver is under the direct supervision of and officer, that officer will also assume responsibility for the actions of the driver.

**6. DEPARTMENT VEHICLES RESPONSE TO EMERGENCY INCIDENTS**

- 6.1 During emergency response, drivers of department vehicles will bring the vehicle to a complete stop for any of the following:
  - 6.1.1 When directed by an law enforcement officer.
  - 6.1.2 Red traffic lights.
  - 6.1.3 Stop signs.
  - 6.1.4 Negative right-of-way intersections.
  - 6.1.5 Blind intersections.
  - 6.1.6 When the driver cannot account for all lanes of traffic in an intersection.

# STANDARD OPERATING GUIDELINE

Drivers/Operators	S.O.G. No.:	Revision:
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- 6.1.7 When other intersection hazards are present.
- 6.1.8 When encountering a stopped school bus with flashing warning lights.
- 6.1.9 All unguarded railroad grade crossings, and will assure that it is safe to proceed before crossing the railroad track(s).

6.2 Drivers will also use caution when approaching and crossing any guarded grade railroad crossing.

6.3 Drivers responding to emergency incidents in department vehicles will, during response, use all emergency lights and audible warning devices.

6.4 All department members responding to emergency incidents in private vehicles will obey all state and local traffic laws.

## **7. MEMBERS RIDING DEPARTMENT VEHICLES**

7.1 All department members riding at anytime in department vehicles will be seated in approved riding positions and will be secured to the vehicle by seat belts at any time the vehicle is in motion other than as allowed in the following:

7.1.1 Members actively performing necessary emergency medical care while the vehicle is in motion will be secured to the vehicle by a seat belt, or by a safety harness designed for occupant restraint, to the extent consistent with the effective provision of such emergency medical care.

7.2 Hose loading operations will be permitted to be performed on moving apparatus only when all of the following conditions are complied with:

7.2.1 All members are trained in this practice.

7.2.2 There will be a member other than those members loading hose, assigned as a safety observer. The safety observer will have an unobstructed view of the hose loading operation and be in visual and voice contact with the driver.

7.2.3 Non-department vehicular traffic will be excluded from the area or will be under control of authorized traffic control persons.

# STANDARD OPERATING GUIDELINE

Drivers/Operators	S.O.G. No.:	Revision:
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- 7.2.4 The apparatus will be driven only in a forward direction at a speed of 5 mph or less.
- 7.2.5 No member will be allowed on the tail steps, sidesteps, running boards, or any other location other than the hose bed while the apparatus is in motion.
- 7.2.6 Members allowed in the hose bed during loading of hose will not be allowed to stand while apparatus is in motion.
- 7.2.7 Prior to the beginning of each hose loading operation the situation will be evaluated to ensure compliance with all the provisions of the standard operating guideline. If the standard operating guideline cannot be complied with, or if there is any question as to the safety of the operation for the specific situation, then the hose will not be loaded on moving apparatus.
- 7.3 Helmets and eye protection will be worn by members riding in cabs or tiller seats that are not enclosed on at least three sides and the top.
- 7.4 On existing apparatus where there is an insufficient number of seats available for the number of members assigned to or expected to ride on that piece of apparatus, alternate means of transportation will include, but not be limited to, other fire department vehicles.
- 7.5 All new department vehicles will be specified and ordered in accordance with appropriate standards. These vehicles will be ordered with a sufficient number of seats in a fully enclosed personnel area for maximum number of persons expected to ride on the vehicle at any time.
- 7.6 The fully enclosed area will consist of a roof, a floor, and four sides, with positivelatching doors that provide total enclosure.
- 7.7 Driver will have the assistance of members of the department when backing a vehicle or apparatus becomes necessary.

## **STANDARD OPERATING GUIDELINE**

Drivers/Operators	S.O.G. No.:	Revision:
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- 7.8 Driver and/or officer will be sure that no unauthorized person is riding any fire department vehicle which they are operating.
  
- 7.9 Members riding vehicle and/or apparatus will remain seated and secured until vehicle comes to a complete stop.

# STANDARD OPERATING GUIDELINE

Occupational Noise Exposure	S.O.G. No.:	Revision:
Department	Effective Date:	Page 1 of 2

## 1. **PURPOSE**

- 1.1 In the interest of department members health and safety, this document is established for the wearing of proper hearing protection when exposed to sounds that could produce hearing loss.

## 2. **REFERENCES**

- 2.1 Current edition of the National Fire Protection Association's 1500, Standard on Fire Department Occupational Safety and Health Program.
- 2.2 North Carolina Fire and Rescue Commission Department Occupational Safety and Health Program for Fire Departments and Rescue Squads, Subpart L, Fire Protection, Chapter 5, Protective Clothing and Protective Equipment, 5-11, Hearing Protection and Subpart G, 1910.095.
- 2.3 Current edition of the American National Standard Institute's (ANSI) S3.19 - 1974, Standard on Hearing Protectors.

## 3. **OSHA REQUIREMENTS**

- 3.1 The department shall provide members with proper hearing protection in the accordance with OSHA 1910.095, Occupational Noise Exposure.

## 4. **REQUIRED EQUIPMENT**

- 4.1 Hearing protection consist of but not limited to:
  - 4.1.1 ANSI.S3.19-1974 compliance earmuffs.
  - 4.1.2 ANSI.S3.19-1974 compliance ear plugs.

## 5. **PROCEDURE**

- 5.1 Hearing protection will be selected on the basis of hazards to which the member is exposed.
  - 5.1.1 Hearing protection is to be worn by all persons, including visitors when exposed to high levels of noise.

## STANDARD OPERATING GUIDELINE

Occupational Noise Exposure	S.O.G. No.:	Revision:
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- 5.1.2 When operating power tools and equipment, i.e., chain saw, K12 saw, air chisel, all members will be required to use hearing protection.
- 5.1.3 Members operating pumps or aerial units at emergency incidents, training, or testing will be required to use hearing protection.

**NOTE: Such protection will be designed so as not to interfere with the operator of radio traffic.**

- 5.1.4 Hearing protection will not be used for fire fighting.
- 5.2 All department members will be fitted and trained in the proper use of the appropriate hearing protection.
  - 5.2.1 Hearing protection will be regularly cleaned and inspected by the user.
  - 5.2.2 Hearing protection will be stored in a convenient and clean location.
- 5.3 Members will engage in the hearing conservation program of the department to identify and reduce or eliminate potentially harmful sources of noise in the work place.

# STANDARD OPERATING GUIDELINE

Eye and Face Protection	S.O.G. No.:	Revision:
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## 1. PURPOSE

- 1.1 In the interest of department member's health and safety, this document is established for the wearing of proper eye and face protection while performing operations where there is a reasonable chance of injury.

## 2. REFERENCES

- 2.1 Current edition of the National Fire Protection Association's 1500, Standard on Fire Department Occupational Safety and Health Program.
- 2.2 North Carolina Fire and Rescue Commission Department Occupational Safety and Health Program for Fire Departments and Rescue Squads, Subpart L, Fire Protection, Section 1910.156, Chapter 5, Protective, Clothing and Protective Equipment, 5-10, Eye and Face Protection, Subpart I Environmental, Personal Protective Equipment, 1910.133, Eye and Face Protection.
- 2.3 Current edition of the American National Standard Institute's (ANSI) Z87.1 - 1989, Standard for Occupational and Educational Eye and Face Protection.

## 3. OSHA REQUIREMENTS

- 3.1 The department shall provide members with proper eye and face protection in the accordance with OSHA 1910.133, Eye and Face Protection.

## 4. REQUIRED EQUIPMENT

- 4.1 Eye and face protection consist of but are not limited to:
  - 4.1.1 ANSI.Z87.1-1989 compliance safety glasses.
  - 4.1.2 ANSI.Z87.1-1989 compliance goggles.

## 5. PROCEDURE

- 5.1 Eye and face protection will be selected on the basis of hazards to which the member is exposed.
  - 5.1.1 Areas requiring safety glasses will be designated by signs.

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Eye and Face Protection	S.O.G. No.:	Revision:
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- 5.1.2 Eye and face protection is to be worn by all persons, including visitors when exposed to possible hazards to the eyes and/or face.
- 5.1.3 Proper face and eye protection will be worn when chipping, grinding, buffing, cleaning welds, or while performing any other operation where flying particles constitute an eye hazard.
- 5.1.4 Chemical goggles, a face shield or other appropriate shielding will be utilized when working where corrosive materials may be splashed or spilled.
- 5.1.5 Safety glasses with side shields and/or face shield will be used when a member is executing any procedure that presents a reasonable opportunity for the occurrence of an eye injury outside of a safety glasses area.
- 5.1.6 Safety glasses and/or goggles will not be used for fire fighting.
- 5.1.7 The shield on a turn out helmet and face piece of a SCBA provides eye and face protection during fire fighting situations. Note: Face shields are for secondary eye protection only.
- 5.1.8 The wearing of contact lenses will not be allowed by members handling, transferring or processing corrosive liquids.
- 5.1.9 Prescription safety glasses are allowed if they meet ANSI requirements.
- 5.2 All department members will be fitted and trained in the proper use of the appropriate eye and face protection.
  - 5.2.1 Eye and face protection will be regularly cleaned and inspected by the user.
  - 5.2.2 Eye and face protection will be stored in a convenient and clean location.
- 5.3 Members hosting visitors or serving as the site contact for contractors are responsible for assuring their guests are aware of and abide by this guideline.
- 5.4 The department and or squad will engage in an eye and face protection program to identify and reduce or eliminate potentially harmful sources of hazards in the work place and on the emergency scene.

<b>STANDARD OPERATING GUIDELINE</b>		
Exit Routes, Emergency Action Plans, and Fire Prevention Plans	S.O.G. No.:	Revision:
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**1. PURPOSE**

1.1 In the interest of member’s safety, this document is established to provide an understanding of the policies and guidelines in the areas of exit routes, emergency action plans, and fire prevention plans.

**2. REFERENCES**

- 2.1 North Carolina Fire and Rescue Commission Department Occupational Safety and Health Program for Fire Departments and Rescue Squads, Subpart E, Exit Routes, Emergency Action Plans, and Fire Prevention Plans
- 2.2 North Carolina State Building Code Volume I.
- 2.3 North Carolina State Building Code Volume V.
- 2.4 National Fire Protection Association Life Safety Code 101

**3. OSHA REQUIREMENTS**

- 3.1 North Carolina State Building Code Volume I
- 3.2 North Carolina State Building Code Volume V.

**4. REQUIRED EQUIPMENT**

- 4.1 North Carolina State Building Code Volume I.
- 4.2 North Carolina State Building Code Volume V.
- 4.3 National Fire Protection Association Life Safety Code 101

**5. PROCEDURE**

- 5.1 All department buildings will meet all applicable standards set forth in the North Carolina State Building Code Volume I, applicable when constructed and the North Carolina Building Code Volume V,
- 5.2 All department buildings will post in visible locations to all members a building escape plan designating the primary escape routes and also secondary escape routes.

## STANDARD OPERATING GUIDELINE

Exit Routes, Emergency Action Plans, and Fire Prevention Plans	S.O.G. No.:	Revision:
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- 5.3 All department members will be familiar with the posted escape plans. All department buildings means of egress shall be maintained in accordance with applicable codes and standards.

# STANDARD OPERATING GUIDELINE

Incident Command	S.O.G. No.:	Revision:
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## 1. **PURPOSE**

- 1.1 The purpose of this document is to provide members of the department with guidelines on the use of the department's Incident Command System.

## 2. **REFERENCES**

- 2.1 North Carolina Fire and Rescue Commission Department Occupational Safety and Health Program for Fire Departments and Rescue Squads, Subpart L, Fire Protection, Chapter 6, Emergency Operations.
- 2.2 Current edition of the National Fire Protection Association's 1561 Standard on Fire Department Incident Management System.
- 2.3 Current edition of the National Fire Protection Association's 473 Standard on Competencies for EMS Personnel Responding to Hazardous Materials Incident

## 3. **OSHA REQUIREMENTS**

- 3.1 Emergency operations and other situations that pose similar hazards, including but not limited to training exercises, shall be conducted in a manner that recognizes hazards and prevents accidents and injuries.
- 3.2 All members involved in emergency operations shall be familiar with the Incident Command System.
- 3.3 The incident commander shall integrate risk management into the regular functions of incident command
- 3.4 The department shall provide an adequate number of personnel to safely conduct emergency scene operations. Operations shall be limited to those that can be safely performed by the personnel at the scene.
- 3.5 The department shall provide personnel for the rescue of members operating at emergency incidents if the need arises.

# STANDARD OPERATING GUIDELINE

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3.6 The incident commander shall consider the circumstances of each incident and make suitable provisions of rest and rehabilitation for members operating at the scene. These provisions shall be in accordance with Section 4-4 of NFPA 1561, Standard on Fire Department Incident Management System, and shall include medical evaluation and treatment, food and fluid replacement, and relief from extreme climatic conditions, according to the circumstances of the incident.

3.7 The department shall establish requirements and standard operating procedures for a standardized post incident critique of significant incidents or those that involved serious injury or death to members.

## 4. **REQUIRED EQUIPMENT**

4.1 Department Standard Operating Guidelines on Incident Management.

## 5. **PROCEDURE**

5.1 Upon arrival of the first unit on the scene, and upon completion of initial size up, command shall be established.

5.2 The member that establishes command will notify communications and announce that command has been established, and also announce the location of command and who is in command. Announcement of command will be done in accordance with department Communication Guidelines.

5.3 The Incident Commander will:

5.3.1 Assume and confirm command and take an effective command position;

5.3.2 Perform situation evaluation that includes risk assessment;

5.3.3 Initiate, maintain, and control incident communications;

5.3.4 Develop and overall strategy and attack plan and assign units to operations;

# STANDARD OPERATING GUIDELINE

Incident Command	S.O.G. No.:	Revision:
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- 5.3.5 Develop an effective incident organization by managing resources, maintaining an effective span of control, and maintaining direct supervision over the entire incident by creating geographic and functional sectors;
- 5.3.6 Review, evaluate, and revise the attack plan as required;
- 5.3.7 Continue, transfer, or terminate command.
- 5.4 At an emergency incident, the Incident Commander will be responsible for the overall safety of all members and all activities occurring at the scene.
- 5.5 The Incident Commander will appoint a Safety Officer at the scene when he/she deems necessary.
- 5.6 The Incident Commander will appoint an Operations Chief when it is necessary to maintain the span of control at an incident scene.
- 5.7 The Operations Chief will have knowledge of the tactical activities of the incident.
- 5.8 The Operations Chief will be responsible for the direct management of all incident tactical activities and should have direct involvement in the preparation of the action plan for the period of responsibility.
- 5.9 The responsibilities of the Operations Chief will be:
  - 5.9.1 Manage incident tactical activities.
  - 5.9.2 Coordinate activities with the Incident Commander
  - 5.9.3 Implement the incident action plan.
  - 5.9.4 Assign resources to tactical level areas based on tactical objectives and priorities.
  - 5.9.5 Build an effective organizational structure through the use of Branches, and Divisions/Groups or Sectors.
  - 5.9.6 Provide tactical objectives for Divisions/Groups or Sectors.

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5.9.7 Consult with and inform other sections and the Incident Command Staff as needed.

5.9.8 Keep the Incident Commander informed of the progress of the incident, and suggest changes in the incident action plan if necessary.

## 6. **RESPONSIBILITIES OF PLANNING OFFICER**

6.1 The Incident Commander will, when necessary to maintain span of control appoint a Planning Officer for the incident.

6.2 The Planning Officers responsibilities will be:

6.2.1 Evaluate current strategy and plan with the Incident Commander.

6.2.2 Maintain resource status and personnel accountability

6.2.3 Refine and recommend any needed changes to plan with operations input.

6.2.4 Evaluate incident organization and span-of-control.

6.2.5 Forecast possible outcome of the incident.

6.2.6 Evaluate future resources requirements.

6.2.7 Utilize technical assistance as needed.

6.2.8 Evaluate tactical priorities, critical factors, and safety.

6.2.9 Gather, update, improve, and manage situation status with a standard systematic approach.

6.2.10 Coordinate with any needed outside agencies for planning needs.

6.2.11 Plan for incident demobilization.

6.2.12 Maintain incident records.

## 7. **LOGISTICS OFFICER**

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- 7.1 The Incident Commander will, when necessary to maintain the span of control appoint a Logistic Officer for the incident.
- 7.2 The responsibilities of the Logistic Officer will be:
  - 7.2.1 Provide for medical aid for incident personnel and manage Responder Rehab.
  - 7.2.2 Coordinate immediate critical incident stress debriefing function.
  - 7.2.3 Provide and manage any needed supplies or equipment.
  - 7.2.4 Forecast and obtain future resource needs (coordinate with the Planning Section).
  - 7.2.5 Provide for communications plan and any needed communications equipment.
  - 7.2.6 Provide fuel and needed repairs for equipment.
  - 7.2.7 Obtain specialized equipment or expertise per Command.
  - 7.2.8 Provide food and associated supplies.
  - 7.2.9 Secure any needed fixed or portable facilities.
  - 7.2.10 Provide any other logistical needs as required by Command.
  - 7.2.11 Supervise assigned personnel.

## 8. FINANCE/ADMINISTRATION OFFICER

- 8.1 The Incident Commander will, when necessary to maintain the span of control appoint a Finance/Administration Officer for the incident.

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- 8.2 The responsibilities of the Finance/Administration Officer will be:
  - 8.2.1 Procuring of services and/or supplies from sources within and outside the department as requested by Command (coordinates with Logistics).
  - 8.2.2 Document all financial costs of the incident.
  - 8.2.3 Keep documentation for possible cost recovery for services and/or supplies.
  - 8.2.4 Analyze and manage legal risk for incidents (i.e. hazardous materials clean up).
  - 8.2.5 Keep documentation for compensation and claims for injury.

## **9. PUBLIC INFORMATION OFFICER**

- 9.1 The Incident Commander will, when necessary to maintain the span of control appoint a Public Information Officer for the incident.
- 9.2 The Public Information Officer will be a part of the Command Staff and will report directly to the Incident Commander.
- 9.3 The Public Information Officer will develop accurate and complete information regarding incident cause, size, current situation, resources committed, and other matters of general interest.
- 9.4 The Public Information Officer will be the point of contact for the media and other governmental agencies which desire information directly from the incident.
- 9.5 The Public Information Officer will only release information that has been approved by the Incident Commander.

## **10. SAFETY OFFICER**

- 10.1 The Incident Commander will, when necessary to maintain span of control appoint a Safety Officer for the incident. (The Incident Safety Officer may by departmental and/or squad policy be pre appointed and responds to incidents by in accordance with that policy).

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- 10.2 The Safety Officer will be a part of the Command Staff and shall report directly to the Incident Commander.
- 10.3 The Safety Officer will have knowledge and experience in all aspects of the incident.
- 10.4 The Safety Officer will assess hazardous and unsafe situations at the incident, and develop measures for assuring personnel safety.
- 10.5 The Safety Officer will have emergency authority to stop and/or prevent unsafe acts.
- 10.6 The Safety Officer will ensure that all personnel involved in the operation at a incident, be dressed in the proper protective clothing for the operation.
- 10.7 The Safety Officer will investigate all injuries or death(s) of a member(s) that occur at the incident and file the proper reports with the proper authorities, the Safety Officer will report the findings of the investigation to the department Health Safety Officer.
- 10.8 If necessary the Incident Commander may appoint additional Safety Officers for the incident.

## **11. LIAISON OFFICER**

- 11.1 The Incident Commander, will when necessary to maintain span of control, appoint an Liaison Officer for the incident.
- 11.2 The Liaison Officer will be a part of the command staff and report directly to the Incident Commander.
- 11.3 The Liaison Officer will be a point of contact for representatives from other agencies.
- 11.4 The Liaison Officer will report to the Incident Commander the resources available from other agencies, and keep the IC informed of any special needs, or need for additional resources.

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## 12. STAGING

- 12.1 The Incident Commander, will when necessary to maintain span of control, appoint an incident Staging Officer.
- 12.2 The Staging Officer will report directly to the Incident Commander until an Operations Chief is appointed, the Staging Officer will then report to the Operations Chief.
- 12.3 If a staging area has not be designated the Staging Officer will be responsible for the scouting and locating a suitable are to be used.
- 12.4 Once staging has been established, the Staging Officer will notify Command or Operations of location.
- 12.5 Once staging has been established and announced all units responding to the scene unless assigned, report to staging and check in with Staging Officer.
- 12.6 All members responding to the scene in private vehicles, will park vehicles far enough away from the scene to prevent congestion, don protective gear and report directly to staging officer.
- 12.7 All members assigned to staging unless assigned to perform a task, or released from scene, will remain in staging .
- 12.8 All crew leaders assigned to perform a task, will, after task is completed, unless reassigned make sure that they and their crew reports to staging or rehab.
- 12.9 If crews report to rehab after completion of assignment, that crew after being rehabed will report to staging unless reassigned.
- 12.10 The Staging Officer will be responsible for notifying Command or Operations of the resources available in staging at all times during the incident and requesting additional resources for staging area if necessary.
- 12.11 The Staging Officer will be responsible for the logging in and out of all members and equipment in the staging area.

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Infection Control-Air/Bloodborne Pathogens		S.O.G. No.:	Revision:
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**1. PURPOSE**

1.1 In the interest of department members health and safety, this document is established to provide and acquaint members with the policies and procedures for awareness of infectious diseases and to prevent exposure and/or decrease potential risk.

**2. REFERENCES**

- 2.1 Current Edition of the National Fire Protection Association’s 1500, Standard on Fire Department Occupational Safety and Health Program.
- 2.2 North Carolina Fire and Rescue Commission Department Occupational Safety and Health Program for Fire Departments and Rescue Squads, Subpart Z, Toxic and Haz-Mat, 1910.1030.

**3. OSHA REQUIREMENTS**

3.1 The department shall provide guidelines and procedures to be taken when encountering victims or suspected carriers of an infectious disease to prevent exposure or decrease potential risk should an exposure occur in accordance with OSHA 1910.1030.

**4. REQUIRED EQUIPMENT**

- 4.1 NFPA or OSHA approved latex and rubber gloves, eye wear and face protection.
- 4.2 Approved cleaning solutions, Lysol, Glutaraldehyde, bleach, and water.
- 4.3 Approved disposable towels and biohazard bags

**5. PROCEDURE**

- 5.1 Members will follow these specific guidelines for blood, body fluids, and/or airborne pathogens.
  - 5.1.1 Gloves will be worn when contact with blood, body fluids, tissue or contaminated surfaces is possible.

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- 5.1.2 Heavy duty rubber gloves or disposable gloves will be worn for cleaning procedures.
- 5.1.3 Protective eye wear will be worn for situations where there is likelihood for blood or body fluids to spatter.
- 5.1.4 Masks will be worn in situations where there is the likelihood for blood or body fluids to spatter or if the patient has a productive cough.
- 5.2 Handwashing is the most important means of preventing the spread of infections. All members will follow the procedures below for handwashing:
  - 5.2.1 Handwashing will not be done in a food preparation area.
  - 5.2.2 Stand away from the sink to prevent cross contamination of your clothing.
  - 5.2.3 Use warm, running water and antiseptic soap.
  - 5.2.4 Work up lather and rub briskly for at least 15 seconds.
  - 5.2.5 Rinse with gently flowing water, with the water running from wrist to finger tips.
  - 5.2.6 Dry hands with paper towel and turn off water faucet with towel. Dispose of towel in appropriate receptacle.

**NOTE Where handwashing facilities are not available, a waterless (alcohol based) hand cleaner will be used, in accordance with product instructions. Personnel will wash hands with soap and water at the earliest opportunity.**

- 5.3 All members will wash their hands after the following:
  - 5.3.1 After each procedure.
  - 5.3.2 Between contact with different patients.
  - 5.3.3 After touching excretions (feces, urine, or material soiled with them), or secretions from wounds, skin infections, etc.

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- 5.3.4 After the use of exam gloves.
- 5.3.5 Whenever in doubt.
- 5.4 All members will follow these steps for the general cleaning of vehicles and equipment:
  - 5.4.1 Gloves will be worn when cleaning vehicles and equipment.
  - 5.4.2 Routine cleaning of the patient compartment will be done when vehicle is checked out for service or as soon as possible. This will include; but not limited to, wiping down the floor, walls, stretcher, and squad bench with an approved disinfectant.
  - 5.4.3 High contact areas such as squad bench, stretcher, radio microphone, cardiac monitor, suction, and jump kits will be evaluated following each call where there has been the likelihood of contamination.
  - 5.4.4 Blood and body fluids will receive priority cleaning. Cleaning them by wiping with a towel or other absorbent material, and disposing of as infectious waste. Then saturate this area of contamination with an approved cleaning solution ( Lysol, Glutaraldehyde, etc.) or bleach and water mixed in a 1:100 ratio or 1/4 cup of bleach per gallon of water. Spray or pour the cleaner as close to the contaminated area as possible to avoid splashing or misting. Soak up this solution with towels or other absorbent material and dispose of as infectious waste.
- 5.5 All waste disposal will be done through the local receiving hospitals or through the receiving hospitals on an out of county transport with their permission.
  - 5.5.1 When disposing of infectious waste the receiving facilities guidelines will be followed as well as EPA and N.C. Medical Waste Management Laws.
  - 5.5.2 All materials used in cleaning blood and body fluids spills i.e., towels or sheets, should be handled as little as possible. The soiled material, towels, sheets, etc. are to be placed in a water soluble bag, properly marked biohazard waste bag and then placed in the appropriate disposal.

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- 5.5.3 Single used supplies and equipment will be placed in a properly marked biohazard waste container or hospital approved container.
- 5.6 To insure the safety of the members, proper care and treatment following an exposure to possibly infectious materials will be performed by proper notification of appropriate personnel and following these specific guidelines of testing and treatment if necessary:
  - 5.6.1 Fluids that pose infectious risks, i.e., patient's blood, body fluids, and/or blood products from a blood bank or lab.
  - 5.6.2 Exposure consist of the following:
    - 5.6.2.1 Stick from a contaminated needle.
    - 5.6.2.2 Splash into the eyes or on mucus membranes.
    - 5.6.2.3 Contamination of any open cuts or breaks in the skin with body fluids.
    - 5.6.2.4 Objects contaminated with blood or body fluids with which you may been stuck or cut such as glass during an automobile accident.
  - 5.6.3 Primary concerns of bloodborne/body fluids infections are:
    - 5.6.3.1 Hepatitis B or "Serum Hepatitis".
    - 5.6.3.2 Human Immunodeficiency, "HIV" or "AIDS".
    - 5.6.3.3 Hepatitis C.
- 5.7 Members will take immediate action to report a possible exposure to their superior officer.
  - 5.7.1 Members will complete a Exposure Incident Report. (See appendix A).

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- 5.8 Members having significant exposure to blood/body fluids will have baseline testing done for Hepatitis B and C performed by a qualified physician
  - 5.8.1 The physician or hospital staff personnel will evaluate the test results, the member immunization status, and if the source of exposure is known the sources test results.
  - 5.8.2 These test results and immune status of member infected will determine the appropriate treatment.
  - 5.8.3 The Infection Control Practitioner or designate will be responsible for counseling the infected member and other uninfected members of the department and/or squad.
  - 5.8.4 Follow-up studies and testing will be done at scheduled intervals dependent upon the specific disease being tested for.

**NOTE: Follow up studies and testing will be done at scheduled intervals dependent upon the specific disease being tested for. Hepatitis follow up is to be done in 6 months; HIV follow ups are to be done in 6 weeks, 12 weeks, and 6 months.**

- 5.8.5 The member will submit a copy of the test results to the Infection Control officer for the county to insure the above follow ups are performed. These results are confidential and are to be kept in a locked file cabinet.
- 5.9 All members will have an opportunity for a Hepatitis B vaccination. (See appendix B).
  - 5.9.1 Members who wants a Hepatitis B vaccination will complete the Hepatitis B Vaccination Consent Form (See appendix B) to be filed in their personnel file. (See appendix C).
  - 5.9.2 Members who choose not to receive a Hepatitis B vaccination must complete a Waiver for Hepatitis B Vaccination form. (See appendix D). This form will be filed in their personnel file.
- 5.10 The department will provide training and education programs for all members on infection control, bloodborne and/or airborne pathogens.

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5.10.1 The department will provide protective equipment for all members whose duties involve direct contact with blood and/or body fluids.

5.10.2 The department members will be defined as to risk categories to the following:

5.10.2.1 Category “1”: Are personnel whose duties involve direct contact with blood and/or body fluids.

5.10.2.2 Category “2”: Are personnel who routinely are not exposed to blood and/or body fluid but may be exposed in an emergency situation.

5.10.2.3 Category “3”: Are personnel whose duties do not involve exposure risks.

5.10.3 Members whose duties are classified as category 1 and 2 will be offered the Hepatitis B vaccination.

5.11 Members will inspect and regularly clean their protective clothing.

5.11.1 Protective coats, protective trousers, and structural fire fighting gloves will be cleaned and dried according to the manufacturer’s instructions at least every 6 months.

5.11.2 Station/work uniforms and protective footwear will cleaned according to the manufacturer’s instructions as needed.

**NOTE: Chlorine bleach or cleaning agents containing chlorine bleach will not be used.**

5.11.3 Small stains from body fluids will permitted to be spot cleaned and then disinfected.

5.11.3.1 The stain will be initially be cleaned with a mild detergent and water.

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5.11.3.2 The affected area will then be disinfected only with disinfectants that are chemically compatible with the clothing. Disinfectants will meet the requirements of the clothing manufacturer.

5.11.4 Member's clothing that is contaminated with large amounts of body fluids will be placed in leakproof bags, sealed, and transported for proper cleaning or disposal.

5.11.5 To decontaminate tools and equipment, flush with water on the scene to remove contaminants. After returning to the department and/or squad, clean with detergent and water. Use a 1 to 10 solution of Clorox and water to disinfect.

5.11.6 When it has been determined by your superior officer or infection control liaison that normally non-disposable items cannot be disinfected, they will be placed in leak-proof bags sealed, and disposed of as medical waste.

5.11.6.1 All medical waste, after being placed in a sealed container or leakproof bag, it will be taken to a medical waste collection site.

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**Appendix A**  
**INFECTIOUS EXPOSURE FORM**

Exposed Member's Name: \_\_\_\_\_ Rank: \_\_\_\_\_

Social Security No.: \_\_\_\_\_ Home Phone No.: \_\_\_\_\_

Name of Carrier: \_\_\_\_\_ Sex: \_\_\_\_\_ Age: \_\_\_\_\_

Address: \_\_\_\_\_

Suspected or Confirmed Disease: \_\_\_\_\_

Transported To: \_\_\_\_\_ Transported by: \_\_\_\_\_

Date of Exposure: \_\_\_\_\_ Time of Exposure: \_\_\_\_\_

Type of Incident (fire, accident, trauma): \_\_\_\_\_

What were you exposed to: Blood \_\_\_\_\_ Tears \_\_\_\_\_ Feces \_\_\_\_\_ Urine \_\_\_\_\_  
Saliva \_\_\_\_\_ Vomitus \_\_\_\_\_ Sputum \_\_\_\_\_ Sweat \_\_\_\_\_ Other \_\_\_\_\_

What part(s) of your body became exposed? Be specific: \_\_\_\_\_  
\_\_\_\_\_

Did you have any open cuts, sores, or rashes that became exposed? Be specific: \_\_\_\_\_  
\_\_\_\_\_

How did the exposure occur? \_\_\_\_\_

Did you seek medical attention? \_\_\_\_\_ Where?: \_\_\_\_\_

Superior Officer's Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Member's Signature: \_\_\_\_\_ Date: \_\_\_\_\_

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**Appendix B**

**HEPATITIS B VACCINE CONSENT FORM**

**THE DISEASE** Hepatitis B is a viral infection caused by a virus (HBV) from which causes death in which some 250 persons will die each year. Most people with hepatitis B recover completely, but approximately 2% to 10% become chronic carriers to the virus. Most of these people have no symptoms, but can continue to transmit the disease to others. Some may develop chronic active hepatitis and cirrhosis. HBV also appears to be a causative factor in the development of liver cancer.

**ENGERIX-B** Engerix-B is a noninfectious recombinant DNA hepatitis B vaccine. No substances of human origin are used in its manufacture. Engerix-B is supplied as a sterile suspension for intramuscular administration. Engerix-B is a noninfectious subunit viral vaccine derived from hepatitis B surface antigen (HBsAG) produced in yeast cells.

A high percentage of healthy people who receive two doses of vaccine and a booster achieve high levels of surface antibody and protection against hepatitis B. Persons with immune system abnormalities, such as dialysis patients, have less response to the vaccine, but over half of those receiving it do develop antibodies. Full immunization requires three doses of vaccine over a six-month period although some persons may not develop immunity even after three doses. There is no evidence that the vaccine has ever caused hepatitis B. However persons who have been infected with HBV prior to receiving the vaccine may go on to develop clinical hepatitis in spite of the immunization. The duration of immunity is unknown at this time.

**POSSIBLE VACCINE SIDE EFFECTS** The incidence of side effects is very low. No serious effects have been reported with the vaccine. A few persons experienced tenderness and redness at the site of the injection. Low grade fever may occur. Rash, nausea, joint pain and mild fatigue have also been reported. The possibility exists that more serious side effects may be identified with more extensive use. **IF YOU HAVE ANY QUESTIONS ABOUT HEPATITIS B OR THE HEPATITIS B VACCINE, PLEASE ASK.**

I have read the above statement about hepatitis B and the hepatitis B vaccine. I have an opportunity to ask questions and understand the benefits and risks of hepatitis B vaccination. I understand that I must have three doses of vaccine to confer immunity. However, as with all medical treatment, there is no guarantee that I will become immune or that I will not experience an adverse side effects from the vaccine. I request that it be given to me or the person named below of whom I am the parent or guardian.

I DO \_\_\_\_\_ I do NOT \_\_\_\_\_ want the hepatitis vaccine immunizations.

I understand it is my responsibility to return at the designated time and place to complete my series of injections and the hepatitis B antibody screen. I am not pregnant or nursing, nor do I have any viral illness at this time.

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Infection Control-Air/Bloodborne  
Pathogens

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Signed

Date

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**Appendix C**  
**HEPATITIS B VACCINATION RECORD**

Exposed Member's Name: \_\_\_\_\_ Rank: \_\_\_\_\_

Department or Agency: \_\_\_\_\_

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

Address: \_\_\_\_\_

Name, Address, and Phone Number of Personal Physician: \_\_\_\_\_

Known Allergies: Food(s): \_\_\_\_\_

Drugs(s): \_\_\_\_\_

Dose Number	Date	Lot No.	Site	Given by
1	/ /	_____	_____	_____
2	/ /	_____	_____	_____
3	/ /	_____	_____	_____

Hepatitis B Antibody Screen: \_\_\_\_\_ Date Performed: \_\_\_\_\_

Results: \_\_\_\_\_

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**Appendix D**  
**WAIVER FOR HEPATITIS B VACCINATION**

Agency Name: \_\_\_\_\_

I, \_\_\_\_\_ have read or have had explained to me information about Hepatitis B and Hepatitis B vaccine. I have had an opportunity to ask questions about Hepatitis B and Hepatitis B vaccination, which were answered to my satisfaction.

I understand that the performance of job responsibilities as an employee (member) of the above named agency could expose me to blood and/or body fluids and therefore to Hepatitis B virus.

I believe that I understand the risks of Hepatitis B and the benefits and risks of vaccination against the Hepatitis B virus.

**I CHOOSE NOT TO RECEIVE THE HEPATITIS B VACCINE.**

\_\_\_\_\_  
Signature of Employee/Member

\_\_\_\_\_  
Date

\_\_\_\_\_  
Signature of Witness

\_\_\_\_\_  
Date

# STANDARD OPERATING GUIDELINE

Ground Ladders	S.O.G. No.:	Revision:
Department	Effective Date:	Page 1 of 4

## 1. **PURPOSE**

1.1 In the interest of member's health and safety, this document is established for proper and safe procedures to be followed during the use, and maintenance of ground ladders.

## 2. **REFERENCES**

2.1 Current edition of the National Fire Protection Association's 1500, Standard on Fire Department Occupational Safety and Health Program.

2.2 Current edition of the National Fire Protection Association's 1931, Standard on Design of and Design Verification Test for Fire Department Ladders.

2.3 Current edition of the National Fire Protection Association's 1932, Standard on Use Maintenance, and Service Testing of Fire Department Ground Ladders.

2.4 North Carolina Fire and Rescue Commission Department Occupational Safety and Health Program for Fire Departments and Rescue Squads, Subpart D, Walking and Working Surfaces, 1910.25 Portable Wood Ladders, and 1910.26 Portable Metal Ladders.

## 3. **OSHA REQUIREMENTS**

3.1 The department shall provide members with NFPA and/or OSHA approved ground ladders in accordance with OSHA 1910.25, and 1910.26.

## 4. **REQUIRED EQUIPMENT**

4.1 NFPA and/or OSHA approved ladders. All ladders for emergency use will meet NFPA 1931, and be maintained according to NFPA 1932.

## 5. **PROCEDURE**

5.1 All department ground ladders will be visually inspected at least once every month and after each use, and anytime suspected damage has occurred.

5.2 Visual inspection will include but not limited to:

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- 5.2.1 Heat sensor labels for change indicating heat exposure.
- 5.2.2 All rungs for snugness and tightness.
- 5.2.3 All bolts and rivets for tightness.
- 5.2.4 Welds for any cracks or apparent defects.
- 5.2.5 Beams and rungs for cracks, breaks, gouges, wavy conditions, or deformation.
- 5.2.6 Butt spurs for excessive wear or other defects.
- 5.3 Operational and/or visual inspection will consist of the following:
  - 5.3.1 Roof hook assemblies
  - 5.3.2 Pawl assemblies
  - 5.3.3 Halyards and cables
- 5.4 All ground ladders will be inspected when initially placed in service, when returned from being repaired, after each use, and monthly.
  - 5.4.1 Any signs of failure during inspection will be sufficient cause to remove the ground ladder from service, until corrected.
- 5.5 Members will clean ground ladders after each use and during the monthly inspection.
  - 5.5.1 All ground ladders will be cleaned using warm soapy water and a soft brush.
  - 5.5.2 Tar, oily or greasy residues will be removed by using a safety solvent.
  - 5.5.3 After the ladder has been rinsed, it will be wiped dry.
- 5.6 All inspections of ground ladders will be permanently recorded using the Ground Ladder Inspection Report form, see appendix (A).

## STANDARD OPERATING GUIDELINE

Ground Ladders	S.O.G. No.:	Revision:
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- 5.7 The company officer or his/her designee will be responsible for insuring the inspection and cleaning of all ground ladders assigned to the station.

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**Appendix A**  
**GROUND LADDER INSPECTION REPORT**

Month/Year \_\_\_\_\_ Company/Shift \_\_\_\_\_

Material \_\_\_\_\_ Ladder Size \_\_\_\_\_

I.D. Number \_\_\_\_\_ Apparatus Number \_\_\_\_\_

	<u>OK</u>	<u>Needs Repair</u>
Heat Sensor Label .....	<input type="checkbox"/>	<input type="checkbox"/>
All Rungs .....	<input type="checkbox"/>	<input type="checkbox"/>
Beams .....	<input type="checkbox"/>	<input type="checkbox"/>
Roof Hooks .....	<input type="checkbox"/>	<input type="checkbox"/>
Pawl Assemblies .....	<input type="checkbox"/>	<input type="checkbox"/>
Staypoles .....	<input type="checkbox"/>	<input type="checkbox"/>
Halyard & Cable.....	<input type="checkbox"/>	<input type="checkbox"/>
All Bolts .....	<input type="checkbox"/>	<input type="checkbox"/>
All Rivets .....	<input type="checkbox"/>	<input type="checkbox"/>
Butt Spurs .....	<input type="checkbox"/>	<input type="checkbox"/>
Pulleys.....	<input type="checkbox"/>	<input type="checkbox"/>
Free of Tar, oily or greasy residues .....	<input type="checkbox"/>	<input type="checkbox"/>
Washed and wiped dry .....	<input type="checkbox"/>	<input type="checkbox"/>

Comments: \_\_\_\_\_  
 \_\_\_\_\_

Performed by: \_\_\_\_\_ Date: \_\_\_\_\_

# STANDARD OPERATING GUIDELINE

Medical and First Aid	S.O.G. No.:	Revision:
Department	Effective Date:	Page 1 of 2

## 1. **PURPOSE**

1.1 In the interest of department member's health and safety, this document is established for the understanding of the policies and guidelines concerning Medical care and First Aid training.

## 2. **REFERENCES**

2.1 North Carolina Fire and Rescue Commission Department Occupational Safety and Health Program for Fire Departments and Rescue Squads, Subpart K, Medical and First Aid.

## 3. **OSHA REQUIREMENTS**

3.1 The employer shall ensure the ready availability of medical personnel for advice and consultation on matters of health.

3.2 In the absence of an infirmary, clinic, or hospital in near proximity to the workplace which is used for the treatment of all injured employees, a person or persons shall be adequately trained to render first aid. First aid supplies approved by the consulting physician shall be readily available.

3.3 Where the eyes or body of any person may be exposed to injurious corrosive materials, suitable facilities for quick drenching or flushing of the eyes and body shall be provided within the work area for immediate emergency use.

3.4 The standard in 1910.151 is derived from 41 CFR 50-204.6.

## 4. **REQUIRED EQUIPMENT**

4.1 North Carolina Fire and Rescue Commission Department Occupational Safety and Health Program for Fire Departments and Rescue Squads, Subpart K.

4.2 First Aid Supplies.

4.3 Facilities for quick drenching or flushing of the eyes and body.

# STANDARD OPERATING GUIDELINE

Medical and First Aid	S.O.G. No.:	Revision:
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## 5. PROCEDURE

- 5.1 All department members will receive training on the use and care of facilities for quick drenching or flushing of the eyes and body.
- 5.2 All department members will receive training on First Aid of injured members.
- 5.3 All medical and first aid supplies will be checked at least once a week and any equipment not usable or missing will be replaced and reported immediately to the officer in charge.
- 5.4 Flushing or drenching facilities will be maintained and in good working order at all times.
- 5.5 Any injuries to any member will be reported to officer in charge immediately.

# STANDARD OPERATING GUIDELINE

Maintenance of Vehicles	S.O.G. No.:	Revision:
Department	Effective Date:	Page 1 of 3

## 1. **PURPOSE**

- 1.1 The purpose of this document is to insure that all members understand the polices and guideline in the maintenance and repair of department and/or squad vehicles.

## 2. **REFERENCES**

- 2.1 North Carolina Fire and Rescue Commission Department Occupational Safety and Health Program for Fire Departments and Rescue Squads, Subpart L, Fire Protection, Section 1910.156, Chapter 4, Section 4-4 Inspection, Maintenance, and Repair of Vehicles.
- 2.2 Current edition of the National Fire Protection Association's 1911 Standard on Service Tests of Pumps on Fire Department Apparatus.
- 2.3 Current edition of the National Fire Protection Association's 1914 Standard on Testing Fire Department Aerial Devices.

## 3. **OSHA REQUIREMENTS**

- 3.1 Department vehicles shall be inspected at least weekly, within 24 hours after any use or repair, and prior to being placed in service or used for emergency purposes to identify and correct unsafe conditions.

## 4. **REQUIRED EQUIPMENT**

- 4.1 Maintenance, testing, and repair records.
- 4.2 Current edition National Fire Protection Association Standard 1911.
- 4.3 Current edition National Fire Protection Association Standard 1914.

## 5. **PROCEDURE**

- 5.1 Members will be responsible for checking assigned vehicles in accordance with department polices and guidelines.

# STANDARD OPERATING GUIDELINE

Maintenance of Vehicles	S.O.G. No.:	Revision:
Department	Effective Date:	Page 2 of 3

- 5.2 Members assigned to check department vehicles will use vehicle check sheets and report any problems to supervisor immediately.
- 5.3 Any repairs to department vehicles will be only made by qualified persons experienced with the type of vehicle or the type of work to be performed in accordance with manufacturer's instructions.
- 5.4 Any department vehicle found to be unsafe will be placed out of service until repairs can be made, (i.e. brake difficulty, power steering problem, failure of any warning devices, windshield wiper problems, any condition that might render operation of the department vehicle more dangerous, and any other problem that might impact the safety of the passengers of the department vehicle or others who share the road with the department vehicle).
- 5.5 After each call the driver of the vehicle will check and see that all equipment is back in place and ready for next call, and that the vehicle is fueled if needed.
- 5.6 On fire apparatus with water tanks, the driver of that vehicle will make sure, if water was used, that booster tank is refilled upon or before returning to station.
- 5.7 Any equipment or vehicle used for medical calls or for transport will be cleaned and sanitized in accordance with department polices, or state standards.
- 5.8 Preventive maintenance programs on all vehicles and equipment will be performed by members responsible as written.
- 5.9 All records and reports of repairs, maintenance, and preventive maintenance program will be filled out properly and filed.
- 5.10 Fire pumps on fire apparatus will be tested in accordance with the applicable requirements of NFPA 1911, Standard for Service Test of Pumps on Fire Department Apparatus.
- 5.11 All aerial devices will be inspected and service tested in accordance with the applicable requirements of NFPA 1914, Standard for Testing Fire Department Aerial Devices.

## STANDARD OPERATING GUIDELINE

Maintenance of Vehicles	S.O.G. No.:	Revision:
Department	Effective Date:	Page 3 of 3

- 5.12 Equipment carried on vehicles when used at an incident or during training, will be cleaned and checked after returning to quarters.
  
- 5.13 Drivers of department vehicles will be responsible for making sure that all equipment used at incidents or during training is back on that vehicle before leaving the scene.

# STANDARD OPERATING GUIDELINE

Organization	S.O.G. No.:	Revision:
Department	Effective Date:	Page 1 of 2

## 1. **PURPOSE**

1.1 In the interest of the department members this document is to provide and acquaint members with the policies and procedures for the administration of the department.

## 2. **REFERENCES**

2.1 North Carolina Fire and Rescue Department Occupational Safety and Health Program for Fire Departments and Rescue Squads, Subpart L, Fire Protection Chapter 2.

## 3. **OSHA REQUIREMENTS**

3.1 The department shall prepare a written statement or policy that establishes the existence of the fire department; the services that the fire department and/or rescue is required to provide; the basic organizational structure; the expected number of fire and rescue members; the type functions that the members are expected to perform; and the type, amount and frequency of training to be provided to members.

3.2 The department organizational statement shall set forth the operational response criteria for the various types of emergency incidents to which the fire department and/or rescue squad is required to respond.

3.3 The organizational statement shall be available for inspection by members or their designated representatives.

## 4. **REQUIRED EQUIPMENT**

4.1 Department Standard Operating Guidelines.

4.2 Department Organizational Statement.

# STANDARD OPERATING GUIDELINE

Organization	S.O.G. No.:	Revision:
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## 5. PROCEDURE

- 5.1 All members will be provided with a copy of the department Standard Operating Guidelines, and also a copy of the departments organizational statement.
- 5.2 All members will be required to become familiar with both the department's operating guidelines and organizational statement.

# STANDARD OPERATING GUIDELINE

Portable Fire Extinguishers	S.O.G. No.:	Revision:
Department	Effective Date:	Page 1 of 3

## 1. **PURPOSE**

1.1 In the interest of department members health and safety, this document is established for the installation, inspection, maintenance and training of portable fire extinguishers.

## 2. **REFERENCES**

2.1 Current edition of the National Fire Protection Association's 10, Standard on Portable Fire Extinguishers.

2.2 North Carolina Fire and Rescue Commission Department Occupational Safety and Health Program for Fire Departments and Rescue Squads, Subpart L, Fire Protection, Portable Fire Extinguishers, 4-5.10 and Chapter 7, Facility Safety, 1910.157.

2.3 North Carolina State Building Code, Volumes I and V.

## 3. **OSHA REQUIREMENTS**

3.1 The department shall provide portable fire extinguishers for protection in accordance with OSHA 1910.157, Portable Fire Extinguishers.

## 4. **PROCEDURE**

4.1 Portable fire extinguishers will be installed in facilities according to and required by the N.C. State Building Code, (reference Volumes I and V).

4.1.1 Portable fire extinguishers will be mounted, located, and identified so members can readily access them.

4.2 All department members will be properly trained in the proper use, and inspection of portable fire extinguishers.

4.2.1 Training records of personnel will be documented by the training officer, or designate.

4.2.2 Training will be done upon initial employment and at least annually thereafter.

# STANDARD OPERATING GUIDELINE

Portable Fire Extinguishers	S.O.G. No.:	Revision:
Department	Effective Date:	Page 2 of 3

- 4.3 The department will inspect fire extinguishers when initially placed in service or returned from being recharged and thereafter at approximately 30-day intervals. The inspection should be done at least monthly.
  - 4.3.1 Extinguishers will be identified by some type of identification.
  - 4.3.2 Extinguishers may be inspected at more frequent intervals when circumstances require.
  - 4.3.3 At least monthly, the date the inspection was performed and the initials of the person performing the inspection will be recorded on the tag attached to the extinguisher.
  - 4.3.4 Personnel making inspections will keep documented records.
    - 4.3.4.1 Extinguishers that were found to require corrective action will also be documented.
- 4.4 The monthly inspection of extinguishers will include a check of the following items:
  - 4.4.1 Located in designated place.
  - 4.4.2 No obstruction to access or visibility.
  - 4.4.3 Operating instructions on nameplate legible and facing outward.
  - 4.4.4 Seals and tamper indicators not broken or missing.
  - 4.4.5 Examine for obvious physical damage, corrosion, leakage, clogged nozzle or cracked hose.
  - 4.4.6 Pressure gauge reading or indicator in the operable range or position.
  - 4.4.7 Check hydrostatic test date.

## STANDARD OPERATING GUIDELINE

Portable Fire Extinguishers	S.O.G. No.:	Revision:
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- 4.5 Corrective action will be taken immediately when an inspection of any extinguisher reveals a deficiency. Reference 4.3.4.1
  - 4.5.1 Extinguishers out of service for maintenance or recharge will be replaced by a spare extinguisher of the same type and rating.
- 4.6 Maintenance, servicing, and recharging may be performed by contracted service. All service records will be maintained by them and your department will receive copies for your records.

# STANDARD OPERATING GUIDELINE

Aerial Platforms	S.O.G. No.:	Revision:
Department	Effective Date:	Page 1 of 2

## 1. **PURPOSE**

- 1.1 In the interest of member's health and safety, and the safety of our customers, this document is established to set guidelines on the use of aerial platforms.

## 2. **REFERENCES**

- 2.1 North Carolina Fire and Rescue Commission Department Occupational Safety and Health Program for Fire Departments and Rescue Squads, Subpart F, Platforms, 1910.66, 1910.67, and 1910.68.
- 2.2 Current edition of the National Fire Protection Association's 1904 Standard on Aerial Ladder and Elevating Platform Fire Apparatus.
- 2.3 Current edition of the National Fire Protection Association's 1914 Standard on Testing Fire Department Aerial Devices.
- 2.4 Current edition of the National Fire Protection Association's 1931 Standard on Design of and Design Verification Tests for Fire Department Ground Ladders.

## 3. **OSHA REQUIREMENTS**

- 3.1 1910.66, Procedure to Prevent Use of Aerial Ladders for Platforms.
- 3.2 1910.67, Procedure to Prevent Use of Aerial Ladders for Maintenance.
- 3.3 1910.68, Procedure to Prevent Use of Aerial Ladders for Maintenance.

## 4. **REQUIRED EQUIPMENT**

- 4.1 Department Standard Operating Guidelines
- 4.2 National Fire Protection Association Standard 1904
- 4.3 National Fire Protection Association Standard 1914
- 4.4 National Fire Protection Association Standard 1931

# STANDARD OPERATING GUIDELINE

Aerial Platforms	S.O.G. No.:	Revision:
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## 5. PROCEDURE

- 5.1 All members will make themselves aware of the department's guidelines on the use and maintenance of aerial platforms.
- 5.2 All new aerial platforms will be ordered in accordance with the standards set forth in National Fire Protection Association Standard 1904.
- 5.3 All ground ladders located on aerial platforms will be tested in accordance with the standards set forth in National Fire Protection Association Standard 1932.
- 5.4 All aerial platforms will be tested in accordance with the standards set forth in National Fire Protection Association Standard 1914.
- 5.5 All members that operate aerial platforms will be trained.

**NOTE: If any aerial apparatus is to be used for activity other than that which it was designed for, then Subpart F - Platforms (1910.67) would apply. If the department wishes to avoid this requirement the next two subpoints would be applicable.**

- 5.6 Aerial platforms will not be used for the purpose of installing banners, decorating Christmas trees, getting cats from trees, or any other function other than emergency operations or training.
- 5.7 Aerial platforms will not be used for the maintenance of buildings and/or other fixtures.

# STANDARD OPERATING GUIDELINE

Protective Clothing & Equipment	S.O.G. No.:	Revision:
Department	Effective Date:	Page 1 of 6

## 1. PURPOSE

- 1.1 In the interest of department member's health and safety, this document is established to provide and acquaint members with the policies and procedures for the wearing of protective clothing and equipment.

## 2. REFERENCES

- 2.1 Current edition of the National Fire Protection Association's 1500, Standard on Fire Department Occupational Safety and Health Program.
- 2.2 Current edition of the National Fire Protection Association's 1975, Standard for Station and work uniforms.
- 2.3 Current edition of the National Fire Protection Association's 1971, Standard for Protective Clothing for Structural Fire Fighting.
- 2.4 Current edition of the National Fire Protection Association's 1972, Standard for Helmets for Structural Fire Fighting.
- 2.5 Current edition of the National Fire Protection Association's 1973, Standard for Gloves for Structural Fire Fighting.
- 2.6 Current edition of the National Fire Protection Association's 1974, Standard for Protective Footwear for Structural Fire Fighting
- 2.7 Current edition of the National Fire Protection Association's 1975, Standard on Station/Work Uniforms for Fire Fighters.
- 2.8 Current edition of the National Fire Protection Association's 1982, Standard on Personal Alert Safety Systems (PASS) for Fire Fighters.
- 2.9 Current edition of the National Fire Protection Association's 1581, Standard on Fire Department Infection Control Program.
- 2.10 Current edition of the National Fire Protection Association's 1999, Standard on Protective Clothing for Emergency Medical Operations.

# STANDARD OPERATING GUIDELINE

Protective Clothing & Equipment	S.O.G. No.:	Revision:
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2.11 North Carolina Fire and Rescue Commission Department Occupational Safety and Health Program for Fire Departments and Rescue Squads, Subpart L, Fire Protection, Chapter 5, Protection, Clothing and Protective Equipment, 5-1 through 5-2.5, 5-4, 5-4.1, 5-5, 5-5.1, 5-7, and 5-7.1, Subpart I Environmental, Personal Protective Equipment, 1910.132, 1910.135, 1910.136, and 1910.137. Section 1910.1000 and 1910.1030 for Air Contaminants and Bloodborne Pathogens.

### **3. OSHA REQUIREMENTS**

3.1 The department shall provide members with proper protective clothing and protective equipment in the accordance with OSHA 1910.132, 1910.135, 1910.136, 1910.137, 1910.1000, and 1910.1030.

### **4. REQUIRED EQUIPMENT**

4.1 NFPA 1975 Approved Station and Work Uniforms.

4.2 NFPA 1971 Approved Protective Clothing for Structural Fire Fighting and NFPA 1976 Approved Protective Clothing for Proximity Fire Fighting.

4.2.1 Protective Coats

4.2.2 Protective Trousers

4.2.3 Protective Overalls

4.2.4 Protective Hoods

4.3 NFPA 1972 Approved Helmets.

4.4 NFPA 1973 Approved Gloves

4.5 NFPA 1974 Approved Footwear

4.6 NFPA 1982 Approved Personal Alert Safety System (PASS)

# STANDARD OPERATING GUIDELINE

Protective Clothing & Equipment	S.O.G. No.:	Revision:
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## 4.7 NFPA 1999 Approved Protective Clothing for Emergency Medical Operations

4.7.1 Emergency medical gloves.

4.7.2 Emergency medical garments.

4.7.3 Emergency medical face protection devices.

## 5. **PROCEDURE**

5.1 Members will be provided with the appropriate protective clothing and protective equipment to provide protection from the hazards to which the member is or is likely to be exposed. Members are responsible for the safe keeping of protective clothing and equipment.

5.1.1 The protective clothing and protective equipment will be suitable for the task that the member is expected to perform.

5.1.2 Full protective clothing shall be worn at all times when operating on the fireground and rescue situations.

5.1.2.1 The above statement may be optional for drivers and command personnel, where appropriate.

5.1.2.2 Pump operators should wear a minimum of helmet, gloves and turnout boots (or steel toe equivalent) during pumping operations and connection and/or disconnection of hose and appliances, and the removal of hose, tools and equipment from the apparatus.

5.1.2.3 Command may use discretion to regulate this guideline in those situations where exemptions appear necessary.

5.1.2.4 Members will not cause delay in any emergency operation by not being fully prepared to engage in firefighting and/or rescue activities in a safe manner.

# STANDARD OPERATING GUIDELINE

Protective Clothing & Equipment	S.O.G. No.:	Revision:
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- 5.2 Members will be fully trained in the care, use, inspection, maintenance, and limitations of the protective clothing and protective equipment assigned to them or available for their use.
- 5.2.1 Members will be trained in the proper use of protective clothing and protective equipment during structural fire fighting operations, i.e., structural, proximity and/or rescue operations.
- 5.2.2 Members who engage in fire fighting operations will be trained and aware of the flammability and thermal stability characteristics of various types of fabrics used in clothing.
- 5.3 Properly fitting protective clothing is important for the safety of the member and all protective clothing will be correctly sized to allow for freedom of movement.

**NOTE: The member should advise a superior officer if an improper fit has developed.**

- 5.3.1 There should be at least a 2-inch (5.08-cm) overlap of all layers of the protective coat and protective trousers so there is no gapping of the total thermal protection when the garments are worn. The minimum overlap should be determined by measuring the garment of the wearer, without SCBA, in both of the following positions:
- 5.3.1.1 Position A: Standing, hands together reaching overhead as high as possible.
- 5.3.1.2 Position B: Standing, hands together reaching overhead, with body bent forward, to the side, and to the back as much as possible.

**NOTE: Single piece protective coveralls, shall not be required to have an overlap of all layers provided there is continuous composite protection.**

- 5.4 Members who engage in or are exposed to the hazards of fire fighting, i.e., structural and/or proximity will be provided with helmets, gloves, boots, and hoods that meet the applicable requirements of NFPA 1971.

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Protective Clothing & Equipment	S.O.G. No.:	Revision:
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- 5.4.1 Members who engage in fire fighting operations, should avoid wearing clothing under protective garments that is considered unsafe due to poor stability, or poor flame resistant characteristics, and that could in itself cause injury to the fire fighter despite the appropriate protective garments worn over such clothing.
- 5.4.2 Members that purchase their own protective clothing or equipment, or equipment supplied by another agency shall only be allowed to use it, if it meets the standards set forth in these guidelines.
- 5.5 Cleaning of protective equipment will be provided by the department either through an outside cleaning service or performed in house. The member should advise a superior officer of any torn, ripped, and/or damaged protective equipment.
  - 5.5.1 Structural fire fighting protective clothing will be periodically cleaned at least every 6 months as specified in Section 5-4 of NFPA 1581.
- 5.6 SCBA shall meet the applicable requirements set forth in the procedures for SCBA.
  - 5.6.1 When SCBA is worn over or outside the proximity protective garments, the fire department shall require additional approved radiant reflective criteria, including but not limited to a protective cover.
  - 5.6.2 Members engaged in fire fighting or rescue operations will be required to wear all protective clothing, including SCBA.
- 5.7 Members protective clothing and protective equipment will be used and maintained in accordance with the manufacture's instructions.
- 5.8 Station and/or work uniforms shall meet the requirements of NFPA 1975.
- 5.9 Members involved with rescue, fire suppression, and other hazardous duties will be provided with a Personal Alert Safety System (PASS) device which meets the requirements of NFPA 1982.
  - 5.9.1 Members will be trained on the use, maintenance, and testing of PASS devices.

# STANDARD OPERATING GUIDELINE

Protective Clothing & Equipment	S.O.G. No.:	Revision:
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5.9.2 Members in hazardous areas shall wear and arm PASS devices.

5.9.2.1 Members will be responsible for the proper maintenance of PASS devices issued by the department and/or squad.

5.9.2.2 Members will be responsible for the testing of PASS devices in accordance with department standards or at least weekly, and prior to each use.

5.9.2.3 A defected PASS device shall be reported to the superior officer immediately.

5.10 Members that perform emergency medical care or are otherwise likely to be exposed to blood or other body fluids will be provided the proper protective garments, gloves, and face protection that meet the applicable requirements of NFPA 1999.

5.10.1 Members will trained in the proper use of emergency medical equipment applicable to the department and/or squad.

5.10.2 Members will wear emergency medical gloves when providing emergency medical care.

5.10.3 Members will use emergency medical garments and emergency medical face protection devices prior to any patient care.

5.10.4 All contaminated emergency medical garments, devices, and gloves will be cleaned and disinfected or disposed of in accordance with NFPA 1581.

# STANDARD OPERATING GUIDELINE

Records	S.O.G. No.:	Revision:
Department	Effective Date:	Page 1 of 2

## 1. PURPOSE

- 1.1 The purpose of this document is to provide an understanding of the policies and guidelines to the members of the department of records that are required by the department.

## 2. REFERENCES

- 2.1 North Carolina Fire and Rescue Commission Department Occupational Safety and Health Program for Fire Departments and Rescue Squads, Subpart L, Fire Protection, Chapter 2, - 2-5, Records.
- 2.2 Current edition of the National Fire Protection Association's 1500, Standard on Fire Department Occupational Safety and Health Program, Chapter 2, Organization, 2-7 Records.
- 2.3 Current edition of the National Fire Protection Association's 1521, Standard for Fire Department Safety Officer, Chapter 3, Functions, 3-1, Records and Data Management.
- 2.4 Current edition of the National Fire Protection Association's 1582, Standard on Medical Requirements for Fire Fighters, Chapter 2, Medical Process, 2-6, Medical Evaluation Records, Results, Reporting, and Confidentiality.
- 2.5 North Carolina Fireman's Association Relief Fund Financial Statement.
- 2.6 North Carolina Department of Insurance, Report of Fire Conditions.
- 2.7 North Carolina Fireman's Association Report of department membership.
- 2.8 North Carolina Rescue Association's Relief Fund Financial Statement.
- 2.9 North Carolina Rescue Association, Report of squad membership.

## 3. OSHA REQUIREMENTS

- 3.1 The department shall maintain permanent records of all accidents, injuries, or deaths that are or might be job related. The department shall also maintain

# STANDARD OPERATING GUIDELINE

Records	S.O.G. No.:	Revision:
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individual records of any occupational exposure to known or suspected toxic products or infectious or contagious diseases.

- 3.2 The department shall maintain training records for each member indicating dates, subjects covered, satisfactory completion and, if any, certifications achieved.
- 3.3 The department shall assure that inspection, maintenance, repair, and service records are maintained for all vehicles and equipment used for emergency operations and training.

## 4. REQUIRED EQUIPMENT

- 4.1 Department records and reports.

## 5. PROCEDURE

- 5.1 All department members responsible for the completing department records will do so in accordance department guidelines.
- 5.2 Daily, weekly, or monthly training will be recorded by member responsible for that function.
- 5.3 All injuries, or deaths will be recorded on proper OSHA, and department records.
- 5.4 All members not receiving the required amount of hours training for State Fireman's and Rescue Squad form will not be identified.

<b>STANDARD OPERATING GUIDELINE</b>		
Respiratory Protection Program & Self Contained Breathing Apparatus (SCBA)	S.O.G. No.:	Revision:
Department	Effective Date:	Page 1 of 8

**1. PURPOSE**

1.1 In the interest of member’s health and safety, this document is established for the proper and safe procedures to prevent excessive exposure to dusts, fumes, mists, gases, smokes, sprays, and vapors by the use of respiratory protection.

**2. REFERENCES**

- 2.1 Current edition of the National Fire Protection Association’s 1500, Standard on Fire Department Occupational Safety and Health Program.
- 2.2 Current edition of the National Fire Protection Association’s 1981, Standard on Open Circuit Positive Pressure Breathing Apparatus.
- 2.3 Current edition of the National Fire Protection Association’s 1404, Standard on Fire Department Self Contained Breathing Apparatus Program.
- 2.4 Current edition of ANSI/CGA G7.1.
- 2.5 MSHA/NIOSH 49 CFR Part 178.
- 2.6 Compressed Gas Association Pamphlet G - 7.1 - 1966
- 2.7 North Carolina Fire and Rescue Commission Department Occupational Safety and Health Program for Fire Departments and Rescue Squads, Subpart I, Environmental, 1910.134, Subpart L Fire Protection, 1910.156, Chapter 5 Protective Clothing and Protective Equipment 5-3, 5-3.1, 5-3.7, 5-3.9, and 5-3.10, and Subpart M Compressed Gases and Air, 1910.169.

**3. OSHA REQUIREMENTS**

3.1 The department shall provide members with a respiratory protection program in accordance with OSHA 1910.134 and the wearing of self contained breathing apparatus in accordance with OSHA 1910.156.

<b>STANDARD OPERATING GUIDELINE</b>		
Respiratory Protection Program & Self Contained Breathing Apparatus (SCBA)	S.O.G. No.:	Revision:
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**4. REQUIRED EQUIPMENT**

4.1 NIOSH/MSHA and/or ANSI Z.88.2-1969 approved self-contained breathing apparatus (SCBA).

**5. PROCEDURE**

5.1 All department members who encounter unknown varieties and quantities of toxic materials and combustion by-products in fire fighting and hazardous material response will utilize SCBA.

5.1.1 The SCBA will not be removed until the following conditions no longer exist or until the member is in a safe atmosphere:

- 5.1.1.1 Hazardous atmospheres
- 5.1.1.2 Atmospheres suspected of being hazardous
- 5.1.1.3 Atmospheres that may rapidly become hazardous
- 5.1.1.4 All members working below ground level or inside any confined space.

5.2 All members will wear SCBA until it can be safely established by monitoring or testing that the atmosphere is not oxygen deficient or contaminated.

5.3 The selection of respiratory protection for department members will be made in accordance with current OSHA standards, NIOSH recommendations, and NFPA standards.

5.3.1 The department will provide at no cost to the member the appropriate type of SCBA.

**NOTE: Respiratory protection devices vary in design, protection capabilities and application. The selection will be based on assessment of the inhalation hazard and an understanding of the specific use and limitations of the equipment.**

# STANDARD OPERATING GUIDELINE

Respiratory Protection Program & Self Contained Breathing Apparatus (SCBA)	S.O.G. No.:	Revision:
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5.3.2 Members will use either of the two design variations which consist of supplied air and self-contained breathing apparatus.

5.4 Since members who will use any type of respirator may be exposed to some physiological stress, medical screening is required.

5.4.1 Members will not be assigned to any job function requiring the use of a respirator until they are physically able to perform the work and use of the equipment.

5.4.2 Members will receive a physical examination, inclusive of a pulmonary function test and chest x-ray to determine if they are physically capable of wearing respiratory protection.

5.4.3 Members who are required to wear a respirator will have their medical status reviewed inclusive of a pulmonary test.

**NOTE: The physician who performs these tests will make the determination of the member's ability to wear the respiratory protective equipment assigned.**

5.4.4 A list of members who have been approved to wear a respirator after their physicals and pulmonary function test will be kept.

5.5 Members who have facial hair, such as a mustache, sideburns, or a beard that passes between the skin and the sealing surface of the respirator facepiece will not be permitted to wear an SCBA.

5.5.1 Other items such as eyeglasses and protective hoods will not be allowed to extend between the sealing surface of the facepiece and the face.

5.6 Members will be properly fitted with respiratory protection.

5.6.1 All members will undergo a fit test to ensure an adequate face to mask seal.

5.6.1.1 Only trained and qualified technicians or instructors will perform the fit tests.

# STANDARD OPERATING GUIDELINE

Respiratory Protection Program & Self Contained Breathing Apparatus (SCBA)	S.O.G. No.:	Revision:
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- 5.6.2 Members whose facial features are altered by substantial increases or decreases in body weight will require testing in addition to the annual test.
- 5.6.3 Records for member's fit test approval will be maintained.
- 5.7 Responsibility for cleaning and disinfecting will be assigned to the member who wears the respirator and has been properly trained.
  - 5.7.1 Members will be required to clean and disinfect their respirators when used routinely. When respirators are used occasionally, periodic cleaning and disinfecting will be appropriate.
  - 5.7.2 Where respirators are worn by more than one user, the respirator will be cleaned and disinfected after each use.
- 5.8 Members will clean and disinfect all respirator's according to the specific procedures of the manufacture's recommendations.
- 5.9 Members will store all respirators in a convenient, clean, and sanitary location.
  - 5.9.1 Members will pack or store respirators so that the facepiece and exhalation valves will rest in a normal position.
- 5.10 Members will inspect all respiratory protective equipment, at the beginning of each shift, after each use and during cleaning. (See appendix A, SCBA Daily Checklist)
  - 5.10.1 Members will inspect SCBA at least weekly.
- 5.11 Members will notify their superior officer of any needed repairs or the replacement of defective parts.
  - 5.11.1 Repairs or part replacement will be done only by qualified personnel.
- 5.12 The following records will be maintained in reference to this respiratory protection program:
  - 5.12.1 All work or repair orders

# STANDARD OPERATING GUIDELINE

Respiratory Protection Program & Self Contained Breathing Apparatus (SCBA)	S.O.G. No.:	Revision:
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- 5.12.2 Compressed air quality analysis
- 5.12.3 Individual training records
- 5.12.4 Maintenance records
- 5.12.5 Quantitative fit test
- 5.12.6 Inventory records
- 5.13 The department will, prior to actual use, provide training in the operation, care and maintenance of the specific type of breathing apparatus to all members.
  - 5.13.1 All members will receive formalized training annually to ensure competent and efficient use of the equipment provided.
  - 5.13.2 A competent person who is qualified will conduct training for members.
  - 5.13.3 Training records will be maintained for each member.
- 5.14 The department will be responsible for full implementation of the respiratory protection program.
  - 5.14.1 The superior officer will responsible for ensuring this policy is maintained.
  - 5.14.2 Failure to comply with any part of this guideline will result in progressive disciplinary action.
- 5.15 Additional requirements for corrective lenses and/or contact lenses are:
  - 5.15.1 Corrective lenses that have temple or straps should not be used when a full facepiece is worn. Frames that can be used with facepieces should be use.
  - 5.15.2 Members who wear contact lenses will not be permitted in contaminated atmospheres.

# STANDARD OPERATING GUIDELINE

Respiratory Protection Program & Self Contained Breathing Apparatus (SCBA)	S.O.G. No.:	Revision:
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- 5.16 All compressed breathing cylinders will be marked and meet U.S. Department of Transportation requirements for interstate shipment as required by MSHA/NIOSH 49 CFR Part 178.
- 5.17 All breathing air will meet or exceed the requirements of Grade D breathing air as specified in the Compressed Gas Association Pamphlet G-7.1 - 1966.
- 5.18 SCBAs will be placed at stations, work areas and on vehicles for emergency use so they are accessible at all times.
- 5.19 Members who are designated as fire fighting or rescue personnel will don SCBA while responding to the emergency or immediately upon arrival on the scene.
  - 5.19.1 Fire fighting or rescue personnel will wear the SCBA according to the manufacturer's requirements and the requirements per this guideline.
  - 5.19.2 Fire fighting or rescue personnel wearing SCBA will operate in teams of two or more.
    - 5.19.2.1 Communication will be maintained between each team through visual, audible, physical, safety rope, electronic or any other means to stay in contact.
    - 5.19.2.2 Team members will stay close to one another to provide emergency assistance if needed.
    - 5.19.2.3 Team members will enter and leave together.
  - 5.19.3 During an SCBA operation, at least one person will be assigned to remain outside the area where SCBA is in use. This person will be responsible for:
    - 5.19.3.1 Maintaining a constant knowledge of the number and identity of personnel using SCBA.
    - 5.19.3.2 Their location and function.
    - 5.19.3.3 Time of entry of the SCBA team (s).

## STANDARD OPERATING GUIDELINE

Respiratory Protection Program & Self Contained Breathing Apparatus (SCBA)	S.O.G. No.:	Revision:
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5.19.4 Additional personnel with SCBA will be on stand-by outside for emergency assistance.

5.19.5 Ample SCBA will be ready at the scene to have one unit for each member who may be exposed to respiratory hazards.

5.20 Sufficient reserve air supply will be supplied by use of spare tanks or by an on scene refill capabilities or a combination of both.

5.20.1 A service area to change out air tanks will be provided by support personnel.

5.20.2 Spare tanks will be brought to the designated change out area.

5.20.3 The mobile air refilling unit will be set up in an designated location away from the hazardous area.

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Respiratory Protection Program & Self Contained Breathing Apparatus (SCBA)	S.O.G. No.:	Revision:
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**Appendix A**

**SELF CONTAINED BREATHING APPARATUS CHECKLIST**

	<u>YES</u>	<u>NO</u>
1. Facepiece hose in good condition.....	<input type="checkbox"/>	<input type="checkbox"/>
2. Facepiece lens clean and in good condition.....	<input type="checkbox"/>	<input type="checkbox"/>
3. Verify exhalation valve operation.....	<input type="checkbox"/>	<input type="checkbox"/>
4. Backpack frame in good condition.....	<input type="checkbox"/>	<input type="checkbox"/>
5. Shoulder and waist straps in good condition and fully extended.....	<input type="checkbox"/>	<input type="checkbox"/>
6. Tank valve functions smoothly.....	<input type="checkbox"/>	<input type="checkbox"/>
7. Pressurize system, verify that low pressure alarm activates, check for leaks.....	<input type="checkbox"/>	<input type="checkbox"/>
8. Assure that SCBA functions in normal operation.....	<input type="checkbox"/>	<input type="checkbox"/>
9. Check by-pass valve.....	<input type="checkbox"/>	<input type="checkbox"/>
10. Check diaphragm in regulator.....	<input type="checkbox"/>	<input type="checkbox"/>
11. SCBA valves restored back to operational position.....	<input type="checkbox"/>	<input type="checkbox"/>
12. Regulator gauge reads the same as tank gauge.....	<input type="checkbox"/>	<input type="checkbox"/>
13. Tank within hydrostatic test date.....	<input type="checkbox"/>	<input type="checkbox"/>
14. Tank is full, clean, has no visible defeats.....	<input type="checkbox"/>	<input type="checkbox"/>

Comments: \_\_\_\_\_  
 \_\_\_\_\_

Performed by: \_\_\_\_\_ Date: \_\_\_\_\_

# STANDARD OPERATING GUIDELINE

Walking & Working Surfaces	S.O.G. No.:	Revision:
Department	Effective Date:	Page 1 of 3

## 1. PURPOSE

- 1.1 In the interest of department members health and safety, this document is established to provide and acquaint members with the policies and procedures for safe walking and working surfaces.

## 2. REFERENCES

- 2.1 Current edition of the National Fire Protection Association's 1500, Standard on Fire Department Occupational Safety and Health Program.
- 2.2 North Carolina Fire and Rescue Commission Department Occupational Safety and Health Program for Fire Departments and Rescue Squads, Subpart D, Walking and Working Surfaces, 1910.22, 1910.23, and 1910.24. 1910.27, 1910.28, and 1910.29

## 3. OSHA REQUIREMENTS

- 3.1 The department shall provide members with safe walking and working surfaces in accordance with OSHA 1910.22, 1910.23, and 1910.24. 1910.27, 1910.28, 1910.29.

## 4. PROCEDURE

- 4.1 Emergency instructions and telephone numbers will be available for the general public, in the event of an emergency and personnel are out of quarters.
- 4.2 Members will keep all rooms, offices, hallways, storage rooms, and the apparatus floor clean, safe, orderly and in a sanitary condition.
  - 4.2.1 All hallways and/or passageways will be free from any type of protruding objects.
  - 4.2.2 Waste containers will be provided in the kitchen and/or eating areas with liners.
    - 4.2.2.1 Waste containers will have tight fitting lids.
  - 4.2.3 All waste containers will be emptied regularly.
- 4.3 All areas of the station will be adequately illuminated.

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Walking & Working Surfaces	S.O.G. No.:	Revision:
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- 4.3.1 Members will replace any burnt out bulbs and notify their superior officer of any possible electrical defects.
- 4.4 Stairways will have standard railings provided for every flight having four or more risers.
  - 4.4.1 Members will assure that stairways are in good condition and will notify their superior office of any problems.
- 4.5 Portable ladders will be adequate for their purpose, in good condition, and have secure footing.
  - 4.5.1 Ground ladders will meet the applicable requirements set forth in the procedures for ground ladders.
  - 4.5.2 Fixed ladders will be equipped with side rails, cages, or special climbing devices.
- 4.6 Members who smoke or use tobacco products will be permitted to do so only in designated smoking areas.
- 4.7 First aid supplies will be available and located at \_\_\_\_\_.(location)
- 4.8 Shower curtains will be provided to prevent floors from becoming excessively wet and slippery around showers.
- 4.9 Members will keep cooking appliances and eating utensils clean and in good working order.
- 4.10 Members will keep all exits visible, free from obstructions, decorations, and/or furnishings.
  - 4.10.1 Exits will not be locked or blocked while the building is in use.
  - 4.10.2 Doors that could be mistaken as exits will be marked, “Not an Exit”.
  - 4.10.3 An emergency escape route will be posted near all exits.

## STANDARD OPERATING GUIDELINE

Walking & Working Surfaces	S.O.G. No.:	Revision:
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- 4.11 Members beds will be located to keep minimum interference during alarm turnouts.
- 4.12 Members will assure that apparatus overhead doors are maintained in a safe and operating condition.
  - 4.12.1 Members will notify their superior officer of any defects.
- 4.13 Members will assure that all maintenance pits are adequately covered and pit boundaries are visible.
  - 4.13.1 Members will keep the pit floor clean and dry as possible.
- 4.14 All scaffolding used at the department and/or squad during construction or repairs will be in accordance with OSHA 1910.28 and 1910.29.
  - 4.14.1 A certificate of insurance will be required for all contractors working at the department and/or squad.

# STANDARD OPERATING GUIDELINE

Training & Education	S.O.G. No.:	Revision:
Department	Effective Date:	Page 1 of 4

## 1. **PURPOSE**

- 1.1 In the interest of department members training and education, this document is established to ensure that they are offered and understand the training and education programs of their organization.

## 2. **REFERENCES**

- 2.1 North Carolina Fire and Rescue Commission Department Occupational Safety and Health Program for Fire Departments and Rescue Squads, Subpart L, 1910.156 Fire Protection, Chapter 3 Training and Education, 3-1 through 3-5.
- 2.2 Current edition of the National Fire Protection Association's 1001, Standard for Fire Fighting Professional Qualifications.
- 2.3 Current edition of the National Fire Protection Association's 1041, Standard for Fire Service Instructor Professional Qualification.
- 2.4 Current edition of the National Fire Protection Association's 1003, Standard for Airport Fire Fighter Professional Qualifications.
- 2.5 Current edition of the National Fire Protection Association's 1403, Standard on Live Fire Training Evolutions in Structures.
- 2.6 Current edition of the National Fire Protection Association's 1231, Standard for Rural and Urban Water Supplies.
- 2.7 Current edition of the National Fire Protection Association's 1021, Standard for Fire Officer Professional Qualifications.
- 2.8 Current edition of the National Fire Protection Association's 472, Standard for Professional Competence of Responders to Hazardous Materials Incidents.

## 3. **OSHA REQUIREMENTS**

- 3.1 The department shall provide members with proper training and education in the accordance with OSHA 1910.156, Training and Education.

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Training & Education		S.O.G. No.:	Revision:
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**4. PROCEDURE**

- 4.1 Training and education will be provided on the basis of duties and functions that a member is expected to perform.
- 4.2 The department will establish and maintain a training and education program.
  - 4.2.1 Members of the department will attend required and educational programs pertaining to the performance of their duties and responsibilities before being permitted to engage in emergency operations.
  - 4.2.2 All members will attend at least the minimum of training and education hours per year established by the department.
  - 4.2.3 Training will be provided for all members as often as necessary to meet applicable requirements.
  - 4.2.4 Accurate record keeping of training and/or educational programs will be maintained by the training officer of the department.
  - 4.2.5 Whenever changes in procedures or technology are introduced, or new hazards are identified in the work environment, appropriate training and education will be provided for all members.
  - 4.2.6 All training will be conducted in a safe manner, and all members will abide by all safety regulations during training sessions.
    - 4.2.6.1 The training program for all members engaged in emergency operations will include procedures for the safe exit of members from a dangerous area in the event of equipment failure or sudden changes in conditions.
- 4.3 All training and educational programs will be provided by qualified persons.

**NOTE: Any members who engage in structural firefighting will meet the requirements of Fire Fighter I as specified in NFPA 1001, Standard for Fire Fighting Professional Qualifications. All members engaged in emergency operations will be trained in the Incident Management System used by their department.**

# STANDARD OPERATING GUIDELINE

Training & Education	S.O.G. No.:	Revision:
Department	Effective Date:	Page 3 of 4

- 4.3.1 All instructors used for live burn training shall be Live Burn Qualified Instructors.
  - 4.3.1.1 All training involving live fire fighting exercises will be conducted in compliance with NFPA 1403, Standard on Live Fire Training Evolution's in Structures, as adopted by the North Carolina Fire and Rescue Commission.
  - 4.3.1.2 An Incident Management System will be used at all Live Burn training exercises.
  - 4.3.1.3 Water supply for all Live Burn exercises will be in accordance with NFPA 1231, Standard for Rural and Urban Water Supplies.
  - 4.3.1.4 Candidates who have not met the requirements of NFPA 1001 or the requirements of NFPA 1403 will not be allowed to participate in exercises involving a hazardous atmosphere.
- 4.3.2 If the fire department is responsible for non-structural fire fighting operations, including but not limited to wildland or other exterior fires, the fire department will provide training in these fire fighting operations.
- 4.3.3 Training in emergency operations will be based on standard operating procedures and/or guidelines. These procedures and/or guidelines will be maintained in written form and should address emergency scene operations.
- 4.3.4 Smoke generating devices that produce a hazardous atmosphere will not be used in training exercises, except when done by an Instructor qualified in that area, and the trainees are equipped with all necessary protective equipment.
- 4.4 Special and advanced training and education will be provided to members who engage in special operations.
  - 4.4.1 All members who are primarily assigned to aircraft rescue and fire fighting will meet the requirements specified in NFPA 1003, Standard for Airport Fire Fighter Professional Qualifications.

# STANDARD OPERATING GUIDELINE

Training & Education	S.O.G. No.:	Revision:
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4.4.2 All members who are likely to be involved in hazardous materials response will be trained to the appropriate level in accordance with NFPA 472, Standard for Professional Competence of Responders to Hazardous Materials Incidents, the Fire and Rescue Commission's Haz-Mat Certification Program, OSHA 1910.120 or a recognized equivalent.

4.4.2.1 Levels of training within the Hazardous Materials standard will be commensurate with the duties the members are expected to perform.

4.5 All fire officers will meet the requirements for Fire Officer I as specified in NFPA 1021, Standard for Fire Officer Professional Qualifications.

<b>STANDARD OPERATING GUIDELINE</b>			
Vehicles	S.O.G. No.:	Revision:	
	Department	Effective Date:	Page 1 of 2

**1. PURPOSE**

1.1 The purpose of this document is for all members to understand safety and health concerns in the specifications, design, and construction of department vehicles.

**2. REFERENCES**

2.1 North Carolina Fire and Rescue Commission Department Occupational Safety and Health Program for Fire Departments and Rescue Squads, Subpart L, Fire Protection, Chapter 4, Vehicles and Equipment.

2.2 Current edition of the National Fire Protection Association’s 1901 Standard on Automotive Fire Apparatus.

2.3 Current edition of the National Fire Protection Association’s 1902 Standard on Initial Attack Fire Apparatus.

2.4 Current edition of the National Fire Protection Association’s 1903 Standard on Mobile Water Supply Fire Apparatus.

2.5 Current edition National Fire Protection Association 1904, Standard for Aerial Ladder and Elevating Platform Fire Apparatus.

**3. OSHA REQUIREMENTS**

3.1 The department shall consider safety and health as primary concerns in the specification, design, construction, acquisition, operation, maintenance, inspection and repair of all department vehicles.

**4. REQUIRED EQUIPMENT**

4.1 Current edition of National Fire Protection Association 1901.

4.2 Current edition of National Fire Protection Association 1902.

4.3 Current edition of National Fire Protection Association 1903.

4.4 Current edition of National Fire Protection Association 1904.

# STANDARD OPERATING GUIDELINE

Vehicles	S.O.G. No.:	Revision:
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## 5. PROCEDURE

- 5.1 All new Fire Apparatus will be ordered in accordance with National Fire Protection Association Standards 1901, 1902, 1903, or 1904, whichever is applicable.
- 5.2 All new Rescue Squad vehicles will be ordered in accordance with standards set forth in local and state requirements in relationship to weight, size, and operational use, and equipment carried.

# STANDARD OPERATING GUIDELINE

Facility Ventilation	S.O.G. No.:	Revision:
Department	Effective Date:	Page 1 of 2

## 1. PURPOSE

- 1.1 In the interest of department members health and safety, this document is established to provide and acquaint members with the policies and procedures for ventilation of facilities from exhaust emissions.

## 2. REFERENCES

- 2.1 Current edition of the National Fire Protection Association's 1500, Standard on Fire Department Occupational Safety and Health Program.
- 2.2 North Carolina Fire and Rescue Commission Department Occupational Safety and Health Program for Fire Departments and Rescue Squads, Subpart G, OH and Environment, 1910.94.

## 3. OSHA REQUIREMENTS

- 3.1 The department shall provide adequate ventilation from exhaust emissions in accordance with OSHA 1910.94.

## 4. PROCEDURE

- 4.1 All members who operate the department vehicles or gas operated equipment will provide adequate ventilation from exhaust emissions while being operated inside the facility.
  - 4.1.1 Members will close all doors leading to sleeping, eating, or meeting rooms or any other part of the facility where people congregate so the exhaust fumes are limited only to the bay areas.
  - 4.1.2 Bay doors where the apparatus are parked will be raised to provide adequate air flow, while having the apparatus running.
  - 4.1.3 If adverse weather is a threat, members will advise their superior officer of the situation and suggest a possible reschedule for the checkout of the apparatus.

# STANDARD OPERATING GUIDELINE

Facility Ventilation	S.O.G. No.:	Revision:
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- 4.1.3.1 Vehicles should not be taken out of their bay for any extended length of time, except for emergency operations, if the temperature is 32 degrees or lower.
- 4.2 No flammable or combustible liquids will be used inside of building unless there is an exhaust system is provided.
  - 4.2.1 It is prohibited to fuel any type of internal combustion engine with a flammable liquid while the engine is running.
  - 4.2.2 No spray painting or other spraying of products will be done inside of building unless proper area or ventilation is provided.
- 4.3 If the facility is equipped with an exhaust extraction system, all members will be properly trained to operate the system.
  - 4.3.1 All vehicles will use the exhaust extraction system while running inside the facility.

**NOTE: If there is a system failure, members will follow steps, 4.1 through 4.1.3.1. of this guideline.**

# STANDARD OPERATING GUIDELINE

Excavation/ Trench Collapse	S.O.G. No.:	Revision:
Department	Effective Date:	Page 1 of 11

## 1. PURPOSE

- 1.1 To provide and acquaint all department members who are engaged in or exposed to excavation and trench collapse incidents with the policies and procedures on the techniques of successfully conducting an operation at a excavation and trench collapse.

## 2. REFERENCES

- 2.1 North Carolina Fire and Rescue Commission Department Occupational Safety and Health Program for Fire Departments and Rescue Squads.

## 3. OSHA REQUIREMENTS

- 3.1 The department will provide members with proper training and education in the accordance with OSHA 29 CFR 1926 excavation and trench collapse.

## 4. PROCEDURE

### 4.1 RESCUE OPERATION SECTOR

- 4.1.1 The department members operating within the rescue operation sector will report to the Incident Command Officer and will have the following responsibilities:

- 4.1.1.1 Manages “rescue site”, establishes needed sectors and coordinates work of all assigned sectors including but not limited to:

- (a) Extrication Sector
- (b) Rescue Equipment Sector
- (c) Medical Sector
- (d) Haz-Mat Sector (air monitoring, ventilation)
- (e) Air Supply Sector
- (f) Fire Suppression Sector
- (g) Entry Team Sector
- (h) Shoring Sector
- (i) Safety Sector

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- 4.1.1.2 Conducts "operation briefing" for all technical rescue personnel and support personnel.
- 4.1.1.3 Ensures that all scene hazards are stabilized.
- 4.1.1.4 Determines needs and requests additional resources.
- 4.1.1.5 Coordinates activities of all mutual aid support.
- 4.1.1.6 Keeps IC apprised of all activities being conducted.
- 4.1.1.7 Coordinates activity of all non-emergency service personnel i.e.; Trench contractor and crew Public Water and Utility companies Heavy equipment operators
- 4.1.1.8 Ensures that all tactical activities adhere to appropriate OSHA standards.

## 4.2 EXTRICATION SECTOR

- 4.2.1 The department members operating within the extrication sector will report to the Rescue Operations Officer and direct the following sectors:
  - (a) Entry team
  - (b) Shoring team
  - (c) Rigging team
  - (d) Support sector
- 4.2.2 Mobilizes and demobilizes teams when tasks are completed.
- 4.2.3 Assesses team needs and communicates the need to "Rescue Operations."

## 4.3 RESCUE EQUIPMENT SECTOR

- 4.3.1 The department members operating within the rescue equipment sector will report directly to the Rescue Operations Officer and have the following responsibilities:

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- 4.3.1.1 Organizes and maintains the proper flow of equipment to and from the rescue site.
- 4.3.1.2 Inventories and accounts for all equipment used during the rescue operation.
- 4.3.1.3 Coordinates and processes rescue equipment requests.
- 4.3.1.4 Assures coordination and safety of all personnel shuttling equipment to and from the rescue site.

## 4.4 MEDICAL SECTOR

- 4.4.1 The department members operating within the medical sector will report directly to the Rescue Operations Officer and have the following responsibilities:
  - 4.4.1.1 Coordinates with EMS personnel for smooth transition of patient care once victim is removed from the environment.
  - 4.4.1.2 Assures proper equipment for patient treatment and packaging is available for placement into environment.
  - 4.4.1.3 Directs all levels of medical personnel on the scene.
  - 4.4.1.4 Assures that accepted medical protocols are coordinated with local medical control.
  - 4.4.1.5 Assigns personnel to medical rehabilitation sector.

## 4.5 HAZ-MAT SECTOR

- 4.5.1 The department members operating within the Haz-Mat sector will report directly to the Rescue Operations Officer and have the following responsibilities:
  - 4.5.1.1 Assures that the atmosphere in the trench and around the surface work area is does not contain irritants that would be or have potential to cause harm to personnel on the scene.

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- 4.5.1.2 Responsible for monitoring O2 levels, flammability, and toxicity of the site atmosphere.
- 4.5.1.3 Establishes appropriate ventilation procedures (forced air ventilation equipment should provide a minimum of 1000 cubic feet per minute-cfm).
- 4.5.1.4 Ensures that potential hazardous materials are properly neutralized.
- 4.5.1.5 Ensures that all haz-mat personnel are wearing appropriate PPE.
- 4.5.1.6 Ensures that all haz-mat tactical activities adhere to appropriate OSHA and EPA standards.

## 4.6 AIR SUPPLY SECTOR

- 4.6.1 The department members operating within the air supply sector will report directly to the Rescue Equipment Officer and have the following responsibilities:
  - 4.6.1.1 Ensures that all equipment utilizing air is functional i.e.; pneumatic inflatable bags, pneumatic shoring devices, supplied air breathing systems, SCBA's, air knives, air compressors, air filling station.
  - 4.6.1.2 Verifies that all air cylinders being filled are within hydrostatic test date.
- 4.6.2 Personnel from this sector may be assigned to "hot zone" to operate pneumatic rescue equipment.

## 4.7 FIRE SUPPRESSION SECTOR

- 4.7.1 The department members operating within the fire suppression sector will report to Incident Command and have the following responsibilities:

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- 4.7.1.1 Ensure proper measures are instituted to combat the possibility of explosion and resulting fire threat.
- 4.7.1.2 Coordinates all tactics with “Rescue Operations” sector.
- 4.7.1.3 Assist entry sector with the evacuation of water from the trench (if needed).

## 4.8 ENTRY TEAM SECTOR

- 4.8.1 The department members operating within the entry team sector will report to the Extrication Officer and have the following responsibilities:
  - 4.8.1.1 Responsible for assembling and outfitting the personnel assigned to work in the rescue environment.
  - 4.8.1.2 Verifies all PPE and rescue equipment are compatible with the rescue environment.
  - 4.8.1.3 Assigns back-up team for deployment.
  - 4.8.1.4 Accounts and records all personnel working in the “hot zone”.
  - 4.8.1.5 Request resource needs from Extrication sector.
  - 4.8.1.6 Responsible for accessing victim, freeing the victim from entrapment and packaging the victim for removal of the victim from the trench.

## 4.9 SHORING SECTOR

- 4.9.1 The department members operating within the shoring sector will report to the Extrication Officer and have the following responsibilities:
  - 4.9.1.1 Assembles and coordinate the activities of the shoring team.
  - 4.9.1.2 Establishes a “cutting team” for cutting timber shores (if needed).

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- 4.9.1.3 Verifies proper installation of shoring system.
- 4.9.1.4 Coordinates equipment needs with Rescue Equipment Officer.

## 4.10 SAFETY SECTOR

- 4.10.1 The department members operating within the safety sector will report to Incident Command and have the following responsibilities:
  - 4.10.1.1 Responsible for immediately correcting any unsafe act(s).
  - 4.10.1.2 Ensures that all applicable OSHA and other rescue related standards are adhered to.
  - 4.10.1.3 Ensures that all rescue sectors follow established safety precautions.
  - 4.10.1.4 Coordinate personnel accountability with Staging Officer.
  - 4.10.1.5 Ensure that a minimum of two means of egress exist at all times while rescuers are in the trench; in close proximity to the rescuers.
  - 4.10.1.6 Ensure timely rotation of rescuers from inside the trench to outside of the trench.
  - 4.10.1.7 Ensure all rescuers receive periodic rehabilitation.
  - 4.10.1.8 Continuously monitor shoring operation for correct installation procedure and tight fit.
  - 4.10.1.9 Monitor warning indicators that might create a secondary collapse and sound evacuation signal.
  - 4.10.1.10 Account for all personnel inside the “hot zone after evacuation is completed.

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4.10.1.11 Report all rescuers not accounted for after evacuation to Incident Command Officer.

**NOTE: Safety Sector may have to be split into an Interior and Exterior Safety Officers Sector.**

## 4.11 HOT ZONE

4.11.1 Area surrounding the immediate rescue incident site. This zone should extend a minimum of twenty feet in all directions going away from the immediate rescue incident site. This area should be limited only to essential personnel to include the Rescue Operation Officer, Rescue Safety Officer, Rescue EMS officer and 4-5 additional trench rescue team members for setting ground pads, neutralizing spoil pile hazards (if present), neutralizing other hazards inside the “hot zone”, setting shoring system, and operate equipment needed in the “hot zone”. Tools and other equipment needed or the “hot zone” should be staged at the edge of the “hot zone”. This zone should be visibly marked i.e.; safety cones or barricade tape.

## 4.12 WARM ZONE

4.12.1 The “warm zone” is established adjacent to the “hot zone”. This zone should have limited access. This zone should begin at the outer edge of the “hot zone” and extend away from the “hot zone” a minimum of fifty feet (may extend further if necessary). The Incident Command Post is located here. Other personnel and sectors include: Rescue Equipment Officer, rescue equipment staging, PIO, personnel waiting for immediate assignment to the “hot zone”, representatives from back-up resource agencies. Progress briefings for sector officers will be conducted in this zone.

## 4.13 COLD ZONE

4.13.1 The cold zone should begin at the edge of the warm zone and extend a minimum of two hundred feet. Apparatus and personnel staging, rehabilitation sector, media personnel, and victim(s) family {keep isolated} are located in this zone.

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## 4.14 VIBRATION ZONE

- 4.14.1 This zone is established to reduce the risk of vibrations created by nearby traffic. Heavy machinery operation or industrial machinery. Vibrations should be eliminated a minimum of three hundred feet in all directions away from the trench.

**NOTE: All zones should extend out from the trench in all directions.**

## 4.15 RESCUE OPERATION

- 4.15.1 The action plan is based on information indicating the viability of the victim(s) and is dependent on rapid intervention. Rescue efforts should insure that the risk to the rescuers and victim should not exceed the benefits gained.

## 4.16 RECOVERY OPERATION

- 4.16.1 The action plan is based on information that indicates the victim has expired. Rescue efforts should not place rescuers at high risk for injury or disability.

## 4.17 TEMPORARY EMERGENCY SHORING

- 4.17.1 Protective bracing of trench walls to reduce the possibility of further collapse on victim(s) and rescuers. Emergency shoring should follow NC OSHA guidelines to insure the safety of rescuers working in and around the trench and reduce further injury to the victim(s).

## 4.18 SIZE UP - PRIMARY ASSESSMENT

- 4.18.1 The department members operating with the first arriving unit(s) will have the following responsibilities:

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- 4.18.1.1 Establish initial vehicle staging a minimum of one hundred feet away from the trench accident site, and notify all other responding units to stage a minimum of three hundred feet from the accident site.
- 4.18.1.2 Establish initial command (advise all responding units of command post location).
- 4.18.1.3 Make contact with job foreman and ascertain the following:
  - 4.18.1.3.1 Specific information regarding type of problem - type of collapse victim entrapment by equipment, or medical emergency.
  - 4.18.1.3.2 Interview witnesses
  - 4.18.1.3.3 Confirm rescue or recovery
  - 4.18.1.3.4 Number and approximate location of victim(s).
  - 4.18.1.3.5 Review with foreman site blueprint and cut sheet.
  - 4.18.1.3.6 Can foreman supply sufficient equipment to complete rescue or recovery.
  - 4.18.1.3.7 Prevent trench workers and rescue personnel from entering an unshored trench if depth of trench is four feet or greater.
  - 4.18.1.3.8 Perform primary assessment-identify and stabilize all existing hazards or potential hazards.
  - 4.18.1.3.9 Confirm existence of hazardous atmosphere in trench-take action to neutralize.

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4.18.1.3.10 Eliminate all vibrations up to five hundred feet away from trench edge.

## 4.19 OPERATIONAL PLAN

- 4.19.1 The department members will establish necessary command staff positions and other sector officer positions needed to control operation.
- 4.19.2 The department members will establish the “hot zone” - rescue operation area.
- 4.19.3 The department members will establish “warm zone” - command staff, light rescue equipment staging, carpentry staging, personnel waiting for “hot zone assignment.
- 4.19.4 The department members will establish “cold zone” - detour moving traffic and shut down all mechanical devices, apparatus and additional personnel staging.
- 4.19.5 The department members will begin temporary shoring for victim(s) who are partially buried and will determine the following considerations.
- 4.19.6 Digging teams and sheeting/shoring teams should have 3 - 7 personnel per team.
- 4.19.7 Pre-plan victim removal technique.
- 4.19.8 Notify appropriate agencies for shutting down power, water and gas.

## 4.20 SECONDARY ASSESSMENT

- 4.20.1 The department members operating within the command staff will continually assess the operational plan and make adjustments to the plan to ensure a safe and efficient operation.

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## 4.21 CRITIQUE

- 4.21.1 A review of the rescue operation with all agencies involved should be done at the earliest time. The critique should reinforce positive aspects of the operation and constructively criticize the negative aspects.

## Appendix A

### **NORTH CAROLINA DEPARTMENT OF INSURANCE NORTH CAROLINA FIRE AND RESCUE COMMISSION**

#### **ESSENTIAL FIRE AND RESCUE FUNCTIONS**

The following is a description of the typical duties and tasks a fire or rescue candidate may be expected to perform while completing the job performance requirements of the Authority Having Jurisdiction. These duties and tasks are applicable to full-time or part-time employees and paid or unpaid volunteers.

The purpose of this document is to give the examining physician some guidance in answering the question if an individual is fit to perform the duties of a fire fighter or rescue squad personnel.

Obviously, depending on the local jurisdiction, the job performance requirements will vary, and this document is only meant to be a guide for the examining physician.

The statements of tasks to be performed were summarized from the Job Performance Requirements of the 1992 Edition, NFPA 1001, Standard for Fire Fighter Professional Qualifications and the Medical Requirements For Fire Fighters, 1992 Edition, NFPA 1582.

#### **DESCRIPTION OF JOB TASKS:**

- The fire fighter or rescue candidate or employee should be capable of operating both as a member of a team and independently at incidents of uncertain duration.
- The fire fighter or rescue candidate or employee should be capable of spending extensive time outside exposed to the elements.
- The fire fighter or rescue candidate or employee should be capable of operating in an enclosed space with little room for maneuvering and limited to void sight conditions.
- The fire fighter or rescue candidate or employee should be capable of performing strenuous duties while wearing full protective clothing weighing approximately 50 pounds.

**The Fire Fighter Candidate** or employee should be capable of performing the following tasks while wearing full protective clothing in a hostile environment:

- dragging charged or uncharged hose lines of approximately 150' length and weighing 150 pounds
- carrying ladders of approximately 100 pounds
- carrying and using portable fire extinguishers of approximately 40 pounds
- swinging an ax of approximately 5-7 pounds to cut holes in areas such as roofs or floors
- ascend a ladder of varying lengths while in full protective clothing and advancing hose lines and/or equipment of approximately 50 pounds
- demonstrate communication skills on the emergency scene as well as in formal settings
- perform rescue functions at accidents, emergencies and disasters to include directing traffic for long periods of time, administering emergency medical aid, lifting, dragging and carrying people away from dangerous situations and evacuating people from particular areas
- read and comprehend documents, placards and labels with accuracy

**The Rescue Candidate** or employee should be capable of performing the following tasks while wearing full protective clothing in a hostile environment:

- operate both as a member of a team and independently at incidents of uncertain duration in water and wilderness environments
- spend extensive time outside exposed to the elements
- work in wet, icy, or muddy areas
- face exposure to infectious agents such as Hepatitis B or HIV
- wear personal protective equipment weighing approximately 50 pounds
- be capable of lifting or assisting in the moving of patients weighing approximately 100 pounds
- be capable of ascending and descending ladders used by the authority having jurisdiction while carrying equipment or persons
- be capable of ascending or descending ropes used for life safety
- be capable of assisting with the extrication of victims from vehicles or confined spaces
- read and comprehend documents, placards and labels with accuracy

Although the previously listed tasks are broken down into fire and rescue functions, many of these tasks could be applicable to both when the authority having jurisdiction performs both functions.

**Appendix B**

\_\_\_\_\_ Department Name  
\_\_\_\_\_ Address  
\_\_\_\_\_ Address

**MEDICAL HISTORY REPORT**

This Information Is For Official Use Only And Will Not  
Be Released To Unauthorized Persons

**Instructions:**

To be completed by applicant for a certifiable position prior to the examination and presented to the examining physician at the time of examination. All questions must be answered completely and accurately. The original or a copy must be retained in personnel file by the appointing agency.

Date: \_\_\_\_\_

Name: \_\_\_\_\_ Date of Birth \_\_\_\_\_  
Last First Middle

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_

Telephone: ( ) \_\_\_\_\_ SS# \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_

**Current Medications**

Prescription Medications: (include pain relievers, birth control pills, etc.) \_\_\_\_\_  
\_\_\_\_\_

Over the Counter Medications: (include all cold allergy, headache, vitamins, etc.) \_\_\_\_\_  
\_\_\_\_\_

**Allergies**

Drug Allergies: (include your reaction to the medication) \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

All Other Allergies: food, insects, seasons, animals, materials, etc., (include reaction) \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Family History**

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Have any of your parents, brothers or sisters suffered from: (check all that apply)

\_\_\_\_\_ Diabetes

\_\_\_\_\_ Heart Problems

\_\_\_\_\_ High Blood Pressure

\_\_\_\_\_ Arthritis

\_\_\_\_\_ Neurologic or psychological problems (Seizures, depression, schizophrenia, etc.)

### **Past Medical History**

**List ALL hospitalizations and operations since childhood:**

(include type of surgery, date of surgery, any complications or other significant information)

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**Have you EVER in your life, had any of the following types of medical problems:**

**(Check all that apply to you)**

\_\_\_\_\_ 1. Cancer: any type of cancer including skin cancer, breast cancer and leukemia

\_\_\_\_\_ 2. Major Infectious Disease: such as tuberculosis, hepatitis, HIV/AIDS, rheumatic fever

\_\_\_\_\_ 3. Neurological Problems: such as seizure disorder, stroke, concussion, severe headache, skull fracture, recurrent vertigo, balance problems, encephalitis, meningitis, tremors, multiple sclerosis, Huntington's chorea, peripheral neuropathy

\_\_\_\_\_ 4. Psychological Problems: such as depression, manic episodes, psychotic episodes, post traumatic stress disorder

\_\_\_\_\_ 5. Eye Problems: such as eye injury, color blindness, poor night vision (night blindness), glaucoma, blindness in one or both eyes, very poor vision when not corrected

\_\_\_\_\_ 6. Ear Problems: such as ear injury, chronic ringing (tinnitus), chronic or long lasting ear infection, Meniere's disease, moderate to severe hearing loss in one or both ears

\_\_\_\_\_ 7. Nose problems: such as nose injury, allergies, nasal bleeding, loss of sense of smell, chronic or long lasting infections

\_\_\_\_\_ 8. Mouth or Throat Problems: such as injury, major dental work, any kind of speech defect, chronic or long lasting infections, abnormality of nose, mouth or throat that would interfere with wearing a respirator

\_\_\_\_\_ 9. Lung Problems: such as asthma, emphysema, chronic or recurrent bronchitis, pneumonia, tuberculosis or lung abscess

\_\_\_\_\_ 10. Heart and Circulation Problems: such as a heart murmur, heart disease, Raynaud's disease

\_\_\_\_\_ 11. Digestive System Problems: such as any kind of ulcer disease, hepatitis or liver disorders, any kind of colitis, Chron's disease, ulcerative colitis, irritable bowel syndrome, esophageal disorders, pancreatitis, gallstones, stomach or intestinal bleeding

\_\_\_\_\_ 12. Hormone or Endocrine Problems: such as diabetes, thyroid disease, parathyroid or adrenal problems

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- \_\_\_\_\_ 13. Urinary Tract Problems: such as kidney stones, pyelonephritis (kidney infection), nephrosis, single functioning kidney, polycystic kidney disease, repeated bladder infections
- \_\_\_\_\_ 14. Hernia: such as inguinal, umbilical, ventral, femoral, hiatal or incisional hernias
- \_\_\_\_\_ 15. Muscle, Bone and Joint Problems: such as chronic back or neck pain, fibromyalgia, back or neck disk disease, osteomyelitis (bone infection), muscular dystrophy, arthritis, spinal curvature, loss of finger or toe
- \_\_\_\_\_ 16. Blood System Problems: such as anemia, hemophilia or bleeding disorder, white blood cell abnormality

**Males Only:**

- \_\_\_\_\_ 17. Prostrate problems such as an enlargement or prostatitis
- \_\_\_\_\_ 18. Genital problems such as epididymitis or testicular injury

**Females Only:**

- \_\_\_\_\_ 19. Currently pregnant
- \_\_\_\_\_ 20. History of endometriosis, pelvic inflammatory disease, abnormal Pap Smear, PMS or other problem with your menstrual cycle

**Immunizations**

- \_\_\_\_\_ 21. Have you ever had a positive TB test?
- \_\_\_\_\_ 22. Have you ever received Hepatitis B vaccinations?
- \_\_\_\_\_ 23. When did you receive your last tetanus (lockjaw) immunization?

**Occupational History**

Have you ever been exposed to any of the following, whether at home, work, military or any other setting: (check any that apply)

- \_\_\_\_\_ 24. Repetitive Loud Noises (including guns, jet engines, loud machinery)?
- \_\_\_\_\_ 25. Chemical exposure to skin or lungs?
- \_\_\_\_\_ 26. Dusty conditions (sandblasting, grinding, mining or drilling of rock, coal, silica, asbestos)?



**Penalty:**

Any falsification, withholding or failure to answer all questions completely and accurately may disqualify you from receiving or retaining employment or certification as a firefighter or rescue technician.

**Certification:**

I hereby certify that there are no willful misrepresentations, omissions or falsifications in the foregoing statements and answers to questions and that all statements and answers are true to the best of my knowledge and belief.

\_\_\_\_\_  
Signature of Applicant (ink)

\_\_\_\_\_  
Date Signed

**Physician Review:**

\_\_\_\_\_  
Signature of Physician (ink)

\_\_\_\_\_  
Date Signed

Print Name and Address of Physician Completing Review

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



Blood Pressure: \_\_\_\_\_ Resting Pulse: \_\_\_\_\_

Cardiac Examination: \_\_\_\_\_ Normal \_\_\_\_\_ Abnormal: \_\_\_\_\_

Peripheral Circulation: \_\_\_\_\_ Normal \_\_\_\_\_ Abnormal: \_\_\_\_\_

ECG: \_\_\_\_\_ Indicated by hx or exam: \_\_\_\_\_

**Normal**

**Abnormal Details**

\_\_\_\_\_ Heart: \_\_\_\_\_  
\_\_\_\_\_ Lungs: \_\_\_\_\_  
\_\_\_\_\_ Abdomen: \_\_\_\_\_  
\_\_\_\_\_ Musculoskeletal: \_\_\_\_\_  
\_\_\_\_\_ Genitourinary: \_\_\_\_\_  
\_\_\_\_\_ Neurological: \_\_\_\_\_  
\_\_\_\_\_ Skin: \_\_\_\_\_

**Urinalysis** \_\_\_\_\_ Normal \_\_\_\_\_ Abnormal: \_\_\_\_\_

**TB Skin Test** \_\_\_\_\_ Negative \_\_\_\_\_ Positive

**Are there any conditions, physical, emotional, or mental which, in your opinion, suggest further examination?**

\_\_\_\_\_ No \_\_\_\_\_ Yes: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Do you have any reservations about this candidate's ability to physically perform required duties?**

\_\_\_\_\_ No \_\_\_\_\_ Yes: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

I have read and fully understand the Medical Screening Guidelines Implementation Manual for the Certification of Firefighters and Rescue Technicians in the State of North Carolina.

\_\_\_\_\_  
Physicians Signature  
\_\_\_\_\_  
Date

\_\_\_\_\_  
Name and Address of Physician (Typed)