Chapter 3 Plans

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Durham Fire & Rescue Respiratory Protection Plan

PURPOSE:

This respiratory protection program is designed to provide a standard operating policy for the Durham Fire & Rescue. This policy is designed to insure that all members engaged in emergency operations will be provided personal protection equipment to eliminate respiratory hazards. These hazards include, but are not limited to, by-products of combustion (smoke, heat, toxic gasses, and oxygen deficiency, which present a working environment that is Immediately Dangerous to Life and Health (IDLH), and airborne pathogens. This policy establishes when respiratory protection shall be used and shall meet the intent of the Maine Department of Labor, Bureau of Labor Standards Respiratory Protection Standard, 29 CFR 1910.134 and amendments.

The use of Self Contained Breathing Apparatus (SCBA) shall be the required in all IDLH atmospheres. The use of either N95 or N100 masks shall be required whenever there is a known or suspected airborne pathogen. Engineering controls, such as ventilation, may be used when the Incident Commander (IC) is able to determine, that no respiratory hazard exists. Ventilation during structural firefighting shall NOT be considered as a substitute for the use of respiratory protection. Personnel have the potential for being exposed to numerous airborne germs and viruses (such as Tuberculosis (TB), Avian "bird flu" or H1N1 "swine flu" strands) when dealing with symptomatic patients.

SCOPE AND APPLICATION:

This program shall apply to all employees who may be or are required to wear respiratory protection during firefighting or other emergency operations where an IDLH or other respiratory hazard exists.

Durham Fire & Rescue will be responsible for any required expenses resulting from the employee's participation in the respiratory protection plan.

DEFINITIONS:

IDLH - Immediately Dangerous to Life and Health, means an atmosphere that poses an immediate threat to life, would cause irreversible adverse health effects, or would impair an individual's ability to escape from a dangerous atmosphere. This would include structural fire, chimney fire, dumpster fires, hazardous material incidents, vehicle fires, or any other operations, which may pose a respiratory hazard.

Rescue Team – This team shall consist of at least two (2) firefighters in full protective clothing with SCBA, have portable radios and rescue equipment immediately available. One member shall remain outside the entry point, while

the other member(s) may perform limited outside duties, designated by the IC, as long as those duties do not jeopardize the safety of the interior firefighters.

Buddy System – Operating in teams of two or more firefighters. Under this system, no single firefighter shall be assigned a task to perform alone in an IDLH atmosphere. Members operating under the Buddy System shall maintain voice or visual contact with the other team member(s).

Medical Evaluation – Shall mean the completion of the attached Medical Questionnaire forms found in Appendix C of 29 CFR 1910.134 and reviewed by a Professional Licensed Health care Provider (PLHCP).

Medical Examination – Shall mean a physical examination by a PLHCP, selected by Durham Fire & Rescue.

Fit Testing – A test conducted on each individual who is expected to wear a respirator. The fit test will be done using the facepiece selected for that individual, to insure a proper seal. Fit testing shall meet the QLFT (qualitative fit testing) protocol found in Appendix B of 29CFR1910.134.

N95 Respirators - An N95 respirator is a respiratory protective device designed to achieve a very close facial fit and very efficient filtration of airborne particles. In addition to blocking splashes, sprays and large droplets, the respirator is also designed to prevent the wearer from breathing in very small particles that may be in the air.

N100 Respirators – An N100 respirator is a respiratory protection device designed to achieve a very close facial fit and very efficient filtration of airborne particles. In addition to blocking splashes, sprays and large droplets, the respirator is also designed to prevent the wearer from breathing in very small particles that may be in the air.

IDLH - Immediately Dangerous to Life and Health

The N100 respirator is **not suitable** for protection in fire, hazardous materials or other oxygen-deficient atmospheres or incidents.

RESPONSIBILITIES

Fire Chief

The Fire Chief shall have the overall responsibility of the administration of the Respiratory Protection Program including:

• Development of the Respiratory Protection Program.

- ♦ Development of policies, rules, and regulations.
- ◆ Developing and implementing a budget to administer the Respiratory Protection Program.
- ♦ Appointment of the Respirator Program Administrator.
- Determining those individuals required to participate in the program.
- Assist the program administrator in the respirator protection program.

Program Administrator - See Appendix A

The program administrator is responsible for administering and overseeing the respiratory protection program. The program administrator may delegate certain responsibilities and duties to other company officers. Duties of the program administrator shall include:

- Identify work areas or operations that require individuals to wear respirators.
- Select the respiratory protection options.
- Develop and implement the respiratory protection program.
- ♦ Ensure that all individuals expected to use respirators are given a medical evaluation.
- Provide a copy of the program and Job Task Analysis to the PLHCP.
- Ensure that physical exams are conducted if required by the PLHCP.
- ◆ Implement a fit testing schedule for all individuals expected to wear a respirator.
- Institute a respirator training and retraining program.
- Ensure proper storage and maintenance of respirators.
- Develop and maintain all respirator training and respirator records.
- Evaluate and update the program as needed.
- ♦ Shall ensure that the compressed air maintains Grade D quality and that the air compressor is serviced and tested at least annually.

Company Officers

Company Officers are responsible for ensuring that the respiratory protection program is implemented. In addition to being knowledgeable about the program requirements for their own protection, Company Officers shall ensure that the program is understood and followed by all individuals under their charge. Duties of Company Officers include:

- ♦ Ensure that individuals under their supervision have received appropriate training, fit testing, and medical evaluations according to the established schedule.
- ♦ Ensuring the availability of SCBA or Respirators for all personnel working in an IDLH atmosphere.
- Enforcing the proper use of SCBA or Respirators when necessary.

- ♦ Ensuring that SCBAs are properly cleaned, maintained, and stored according to the respiratory protection program.
- ♦ Continually monitoring work areas and operations to identify respiratory hazards.
- ◆ Report to the Program Administrator or Deputy Administrator any individual having difficulty wearing or when using SCBA or Respirators.
- ♦ Ensure that all Personnel operating in IDLH incidents follow the Department SOG for Fire Scene rehab.
- ♦ Continually monitoring work areas and operations to identify respiratory hazards.
- ♦ Report to the Program Administrator or Deputy Administrator any individual having difficulty wearing or when using the respirator.

Employees

- ◆ Each employee shall wear his/her SCBA / Respirator when and where required and in the manner in which they were trained.
- ◆ Each employee shall care, maintain, inspect monthly and store their SCBA facepiece as instructed.
- ♦ Shall inform the Company Officer if the SCBA / Respirator facepiece no longer fits well and request to be refitted with the proper fitting facepiece.
- ◆ Inform the Company Officer should you have difficulty when wearing or using an SCBA / Respirator.
- ♦ Inform the Company Officer or Program Administrator of any respiratory hazards that you feel are not adequately addressed in the workplace and any other concerns that you have regarding the program.
- ◆ An employee must report medical signs or symptoms that are related to ability to use a respirator.

PROGRAM ELEMENTS

Selection of Respirator Procedures

Durham Fire & Rescue currently uses the Scott 4.5 brand of SCBA. The 4.5 is certified by NIOSH and shall be used in accordance with the certification. Personnel shall be fit tested annually. Should the individual require a different mask then the standard which is Scott AV 2000 and 3000, the Department shall issue to the individual member the proper fitting mask.

Durham Fire & Rescue currently uses both N95 and N100 Respirators. Personnel shall be fit tested annually. Should the individual require a different mask then the standard which is N100 the Department shall carry the proper fitting N95 on the Rescue.

HAZARD EVALUATION

Structural Firefighting

Due to the unknown respiratory hazards posed by structural firefighting, all members of the Durham Fire Department engaged in interior structural firefighting (as defined in the definition section of this program) shall use SCBAs. The SCBA shall remain in use until overhaul is complete and the fire is determined to be out by the Incident Commander, or the respiratory hazard has been eliminated and deemed safe.

Firefighters who are performing exterior operations at a structural fire may be required to use SCBA, depending on the operation and the potential respiratory hazard as determined by the Incident Commander, Safety Officer, or Company Officer.

Each and every firefighter using SCBA shall be required to go through Fire Scene Rehab. Firefighters must complete all aspects of rehab as written in the rehab SOG.

Vehicle Fires

Vehicle fires are known to produce toxic gasses that may be IDLH. Firefighters who are engaged in vehicle firefighting operations shall use SCBA while performing this operation.

Dumpster Fires or Trash Container Fires

These fires (if not classified as a structure fire) when involved in a fire, shall require firefighters to wear SCBA while performing these operations.

Hazardous Materials Incidents

Firefighters who respond to or operate at a hazardous materials incident may be exposed to a variety of known and unknown respiratory hazards. SCBA shall be worn by all personnel operating in the Hot Zone, Warm Zone, and Decontamination Zone as determined by the Incident Commander.

Chimney Fires

Firefighters operating on the roof level at chimney fires shall be required to wear SCBAs.

Carbon Monoxide Incidents

Due to the fact that carbon monoxide presents a potential respiratory hazard, personnel operating at CO Alarms shall wear SCBA until the structure has been declared safe and by verifying with a Carbon Monoxide Meter.

Special Rescue Situations

Special rescue situations may include below grade, and other areas where the Incident Commander cannot ensure the quality of the atmosphere. In these cases personnel shall be required to wear SCBA. Engineering controls such as ventilation may be used with constant monitoring and may ensure with certainty the quality of the atmosphere in the rescue environment.

Medical Responses

Medical Responses that have a known or expected exposure to Airborne Pathogens could expose members to TB, flus or other aerosolized viruses. When known or expected employees will be required to wear the appropriate sized N95 or N100.

Other Respiratory Hazards

Nothing in this policy is intended to restrict the Incident Commander, Safety Officer, or Company Officer from requiring personnel to use SCBA when he/she suspects a potential respiratory hazard. Officers are encouraged to adequately size up the situation and consider the safety of personnel when making decisions regarding SCBA. When in doubt, order SCBA on.

UPDATING THE HAZARD ASSESSMENT

The Program Administrator shall review and update the hazard assessment annually or as needed.

MEDICAL EXAMINATION

All new hires shall be required to complete a Medical Evaluation form, Appendix C of 29 CFR 1910.134. New hires must receive a PLHCP certification that they are able to wear an SCBA or Respirator. Any new hire refusing a Medical Evaluation will be terminated.

MEDICAL EVALUATION

Personnel who may be subject to or required to wear SCBA must pass a medical evaluation before being permitted to wear SCBA in training or on the job. Personnel are not permitted to wear SCBA until a PLHCP has determined that they are medically able to do so. Any personnel refusing a medical evaluation will not be allowed to work in an area requiring SCBA.

Using a respirator may place a physiological burden on employees that varies with the type of respirator worn, the job and workplace conditions in which the respirator is used, and the medical status of the employee. Accordingly, this paragraph specifies the minimum requirements for medical evaluation that employers must implement to determine the employee's ability to use a respirator.

A PLHCP at (see appendix A) will provide the medical evaluation. Medical evaluation procedures are as follows:

- ◆ The medical evaluation will be conducted using a questionnaire provided in Appendix C of the respiratory protection standard.
- ◆ To the extent feasible, Durham Fire & Rescue will assist employees who are unable to read the questionnaire (by providing help in reading the questionnaire). When this is not possible, the employee will be sent directly to the PLHCP for medical evaluation.
- ♦ All affected employees will be given a copy of the medical questionnaire to fill out, along with a stamped and addressed envelope for mailing the questionnaire to the Department PLHCP. Employees will be permitted to fill out the questionnaire on employer time.
- ◆ Follow-up medical evaluations will be provided to employees as required by this standard, or as required by the PLHCP.
- ◆ All employees will be granted the opportunity to speak with the physician about their medical evaluation, if they so request.
- After an employee has received clearance and begun to wear SCBA, additional medical evaluations will be provided under the following circumstances.

Annually after age 40. Every two years between the ages of 35 - 39. Every five years up to age 34

Or:

- The employee reports signs and/or symptoms related to their ability to use an SCBA/ Respirator, such as shortness of breath, dizziness, chest pains, or wheezing.
- The PLHCP or supervisor informs the Program Administrator that the employee needs to be reevaluated.
- Information from the program, including observations made during fit testing and program evaluation, indicates a need for reevaluation.
- A change occurs in the workplace that may result in an increased physiological burden on the employee.

All examinations, evaluations and questionnaires are to remain confidential between the employee and the PLHCP.

FIT TESTING

Before an employee may be required to use any respirator with a negative or positive pressure tight-fitting facepiece, or SCBA the employee must be fit tested with the same make, model, style, and size of SCBA / respirator that will be used.

The employer shall conduct an additional fit test whenever the employee reports, or the employer, PLHCP, supervisor, or program administrator makes visual observations of, changes in the employee's physical condition that could affect respirator fit. Such conditions include, but are not limited to, facial scarring, dental changes, cosmetic surgery, or an obvious change in body weight.

Fit testing will be conducted in accordance with the following schedule:

- ◆ Prior to being allowed to wear SCBA / Respirator.
- **♦** Annually
- ♦ When there are changes in the employee's physical condition that could affect respiratory fit (obvious changes in body weight, facial scarring, etc.).

The Program Administrator will conduct fit tests following the QLFT protocol found in Appendix B of the respiratory protection standard.

General Procedures for SCBA

Employees will use their SCBAs under conditions specified by this program, and accordance with the training they receive on the use of each particular model. In addition, the SCBA shall not be used in a manner for which it was not certified by NIOSH or by its manufacturer.

All employees shall conduct "User Seal Checks" each time that they wear their respirator. Employees shall use either positive or negative pressure check (depending on which test works best for them) as specified in Appendix B-1 of the Respiratory Protection Standard.

Employees who detect operational problems with, or experience failure of, the SCBA shall immediately notify their supervisor, sound their PASS Alarm, and leave the hazardous environment with their partner.

Employees are not permitted to wear any jewelry, ear protection, eye glasses, or protective hoods in a manner that may interfere with the face to facepiece seal. Facial hair or any other hairstyle may not interfere with the face to facepiece seal.

Interior Structural Firefighting

Employees engaged in Interior Structural Firefighting shall:

- ◆ Use SCBA for all fires beyond the Incipient Stage or as directed by the Incident Commander.
- Continue to use SCBA until the completion of "Overhaul".
- ♦ Work in a minimum of pairs and maintain voice and visual contact with members of each team.
- ♦ Be supported by two stand-by members who are available for immediate rescue of interior firefighters, at each point of entry as determined by the Incident Commander. Each stand-by member shall be dressed in full protective clothing and have SCBA immediately available to them. The function of one of the stand-by members shall be accountability of the firefighters inside the structure. The other stand-by member may assume other duties including Incident Commander or Pump Operator provided this individual is able to perform rescue assistance without jeopardizing the safety or health of any firefighter working at the incident.

Nothing herein shall prohibit the Incident Commander from establishing a Rapid Intervention Team (RIT) to replace the two firefighters outside, provided a RIT Team is established for each entry point as determined by the Incident Commander.

In the event that the Incident Commander determines the need to perform Emergency Rescue Activities upon arrival of the entire team, the Incident Commander **must:**

- Notify dispatch of entry without the two stand-by members.
- Enter with or without a charged hand-line, perform the Emergency rescue, and immediately leave the structure.
- ◆ After the incident, document in writing, to the Fire Chief, a detailed explanation regarding the deviation of policy.

Use other than Interior Structural Firefighting

For incidents requiring SCBA use other than Interior Structural Firefighting, employees shall use SCBA whenever they may be exposed to environments which may become IDLH or other respiratory hazard, as directed by the Incident Commander.

When the Incident Commander cannot ensure the employees ability to escape from the hazardous environment, one employee shall be stationed at the point of entry to maintain accountability and be readily available to perform immediate rescue.

AIR QUALITY

SCBA cylinders shall be filled with Grade D compressed air only. The Program Administrator shall ensure that the compressed air maintains Grade D quality and that the air compressor is serviced and tested at least annually.

CLEANING

SCBA are to be cleaned and disinfected after each use. The cleaning policy to be as follows:

- Disassemble SCBA, removing cylinder, mask and PASS device.
- Wash the facepiece and associated parts in mild detergent with warm water.
- Disinfect the facepiece with a diluted bleach solution.
- Rinse completely in clean warm water.
- ♦ Air-dry in a clean area.
- ◆ Reassemble the SCBA, test the function, and replace any defective parts, test function.
- Place back on apparatus, masks are to be stored in a bag, or within an enclosed cab.

Field cleaning of SCBA is to be done using 70% Isopropyl Alcohol wipes. There will be no sharing of SCBA masks in the field without proper field cleaning.

The Program Administrator will ensure an adequate supply of cleaning and disinfecting material at the fire station, as well as field cleaning material. If supplies are low, employees should notify their supervisor who will in turn notify the Program Administrator.

MAINTENANCE

SCBA are to be properly maintained at all times in order to ensure that they function properly and adequately protect the employees. Maintenance involves a thorough visual inspection for cleanliness and defects. Worn or deteriorated parts will be replaced prior to use. No components will be replaced or repairs made beyond those recommended by the manufacturer, except by those trained by the manufacturer to do such repairs. Repairs beyond the scope of our trained personnel will be conducted by the manufacturer or their designee.

The following items are to be checked after each use and weekly. The findings of these checks are to be properly recorded in the SCBA Maintenance Log:

♦ Facepiece;

Cracks, tears, or holes

Facepiece distortion

Cracked, loose, or damaged lens

Headstraps;

Breaks or tears

Broken buckles

Valves

Residue or dirt

Damage to valve or valve material

♦ Gauges, regulators & Air Lines

Damage to or inaccuracy

Leaks

PASS Alarm

Operation

Battery condition

Body Harness

Tears, rips, fraying or otherwise damaged straps

Broken buckles

♦ Cylinder

Air supply full

Hydrostatic test date

General cylinder condition

SCBA that are defective or that have defective parts shall be taken out of service immediately. If during an inspection or during use, an employee discovers an SCBA with a defect he / she is to bring the defect to the attention of his / her supervisor. Supervisors will give all defective SCBA to the Program Administrator. The Program Administrator will decide whether to:

- ◆ Temporarily take the SCBA out of service until it can be repaired
- Perform a simple repair on the spot.

♦ Dispose of the SCBA or part due to irreparable condition.

When a respirator is taken out of service, it will be appropriately tagged indicating the problems, and stored in the SCBA maintenance room until it can be repaired or sent out for service.

STORAGE

Storage of SCBA shall be in their designated place on the apparatus. Masks shall be stored in plastic or nylon bags, or enclosed apparatus cabs to prevent exposure to road dirt or other contaminates.

General Procedures Respirators

N95

To work as expected, an N95 respirator requires a proper fit to your face. Generally, to check for proper fit, you should put on your respirator and adjust the straps so that the respirator fits tight but comfortably to your face. For information on proper fit, refer to the manufacturer's instructions.

The 'N95' designation means that when subjected to careful testing, the respirator blocks 95% of very small test particles. If properly fitted, the filtration capabilities of N95 respirators exceed those of face masks. However, even a properly fitted N95 respirator does not completely eliminate the risk of illness or death.

N95 respirators are not designed for children or people with facial hair. Because a proper fit cannot be achieved on children and people with facial hair, the N95 respirator may not provide full protection.

People with chronic respiratory, cardiac, or other medical conditions that make it harder to breathe should check with their healthcare provider before using an N95 respirator because the N95 respirator can require more effort to breathe. Some models have exhalation valves that can make breathing out easier and help reduce heat build-up.

ALL FDA-cleared N95 respirators are labeled as "single use", disposable devices. If your respirator is damaged or soiled, or if breathing becomes difficult, you should remove the respirator, discard it properly, and replace it with a new one. To safely discard your N95 respirator, place it in a plastic bag and put it in the trash. Wash your hands after handling the used respirator.

Most N95 respirators are manufactured for use in construction and other industrial type jobs that expose workers to dust and small particles. These respirators are evaluated for effectiveness by the National Institute for Occupational Safety and Health (NIOSH), which is part of the Centers for Disease Control (CDC). These are labeled "For occupational use."

N95 respirators cleared by FDA for use in the healthcare setting are called surgical N95 respirators. These devices meet some of the same performance standards as surgical face masks and are also NIOSH certified to meet the N95 respirator performance requirements.

N100

To work as expected, an N100 respirator requires a proper fit to your face. Generally, to check for proper fit, you should put on your respirator and adjust the straps so that the respirator fits tight but comfortably to your face. For information on proper fit, refer to the manufacturer's instructions.

The 'N100' designation means that when subjected to careful testing, the respirator blocks 100% of very small test particles. If properly fitted, the filtration capabilities of N100 respirators exceed those of face masks. However, even a properly fitted N100 respirator does not completely eliminate the risk of illness or death.

N100 respirators are not designed for children or people with facial hair. Because a proper fit cannot be achieved on children and people with facial hair, the N100 respirator may not provide full protection.

People with chronic respiratory, cardiac, or other medical conditions that make it harder to breathe should check with their healthcare provider before using an N100 respirator because the N100 respirator can require more effort to breathe. Some models have exhalation valves that can make breathing out easier and help reduce heat build-up.

ALL FDA-cleared N100 respirators are labeled as "single use", disposable devices. If your respirator is damaged or soiled, or if breathing becomes difficult, you should remove the respirator, discard it properly, and replace it with a new one. To safely discard your N100 respirator, place it in a plastic bag and put it in the trash. Wash your hands after handling the used respirator.

Most N100 respirators are manufactured for use in construction and other industrial type jobs that expose workers to dust and small particles. These respirators are evaluated for effectiveness by the National Institute for Occupational Safety and Health (NIOSH), which is part of the Centers for Disease Control (CDC). These are labeled "For occupational use."

N100 respirators cleared by FDA for use in the healthcare setting are called surgical N100 respirators. These devices meet some of the same performance standards as surgical face masks and are also NIOSH certified to meet the N100 respirator performance requirements.

Location

The N-95 / N-100 respirators will be stored on R-25 and E-21. Additional locations will be used for storage if conditions warrant such as large department response for a pandemic situation.

TRAINING

This paragraph requires the employer to provide effective training to employees who are required to use N-95 / N-100 respirators. The training must be comprehensive, understandable, and recur **annually**, and more often if necessary. This paragraph also requires the employer to provide the basic information on respirators to employees who wear respirators.

The employer shall ensure that each employee can demonstrate knowledge of at least the following:

- Why the respirator is necessary and how improper fit, usage, or maintenance can compromise the protective effect of the respirator:
- What the limitations and capabilities of the respirator are;
- How to use the respirator effectively in emergency situations, including situations in which the respirator malfunctions;
- How to inspect, put on and remove, use, and check the seals of the respirator;
- What the procedures are for maintenance and storage of the respirator;
- How to recognize medical signs and symptoms that may limit or prevent the effective use of respirators; and

For more information on the proper use and removal of masks and respirators, or to learn more about these and other issues relating to pandemic influenza, visit www.pandemicflu.gov.

Annually, in Durham, each employee shall attend and successfully complete SCBA training that is based on current NFPA Standards. Training will be both knowledge and hands-on based. Training will include:

- ◆ The need for respirator use, and how improper fit, usage, or maintenance can compromise the protective effectiveness of the SCBA.
- Limitations and capabilities of SCBA
- ♦ How to effectively use SCBA
- ♦ How to inspect, Don, Duff, use, and perform proper seal checks.
- Procedures for maintenance field cleaning, and storage.
- How to recognize medical symptoms that may compromise the safety of the wearer.

PROGRAM EVALUATION

The Program Administrator shall annually and as needed evaluate the respiratory program to ensure that:

- Current written programs are being effective and properly implemented.
- ♦ Employees are properly using SCBA and,
- The program continues to be effective.

RECORDKEEPING

The Program Administrator shall keep and maintain all documentation in the areas of:

- Medical evaluations (PLHCP recommendation only)
- ♦ Fit Testing
- ♦ Training records

EFFECTIVE DATES

The effective date of this policy shall be October 27, 1999,

Reviewed and updated January 8, 2001

Reviewed and updated June 4, 2002

Reviewed and updated May 13, 2003

Reviewed and updated June 28, 2004

Reviewed June 27, 2005

Reviewed July 27, 2006

Reviewed October 1, 2007

Reviewed October 3, 2008

Reviewed October 10, 2009

Reviewed October 27, 2010

Reviewed and updated November 21, 2011

Reviewed December 20, 2012

Reviewed and updated June 16, 2014

Reviewed October 26, 2015

Reviewed September 13, 2016

Next scheduled review is September 13, 2017

Donning and Adjusting of A Mask



N100 or N95 stamped on the front of mask



1. Cup the mask in your hand with the nose piece at your fingertips with the straps over your fingers.



2. Put the mask on your face, chin first and continue to hold it with your hand.



3. Pull the top strap up and over your head and let it come to rest at the top of the back of your head. The strap goes higher on the back of your head than you



4. Pull the bottom strap up and over and let it come to rest around your neck below your ears



5. Use the fingers of both hands to mold the metal nose piece. Be sure to use both hands, if you pinch it with just the fingers from one hand the seal won't be right.think it should; at the *top* of the back of your head.



6. Do a seal check by placing both hands completely over the mask and inhaling. You should feel the mask pull in against your face if you have a good seal. If you don't have a good seal, or if the seal becomes poor during use, remove yourself from the dangerous environment immediately and re-adjust the straps and metal nosepiece.

GENERAL DOFFING INSTRUCTIONS FOR THE RESPIRATOR



- 4. Without touching the respirator, slowly lift the bottom strap from around your neck and up over your head.
- 2. Lift off the top strap. Do not touch the respirator.
- 3.Discard the respirator according to Infection Control Guidelines.

Fire fighter Job task analysis

- ♦ Protects life and property and extinguishes fire.
- Responds to fire alarms and other emergency calls.
- ♦ Selects hose and nozzle depending on type of fire and directs stream of water or chemical on fire.
- Positions and climbs ladders to gain access to upper levels of buildings to rescue individuals from burning structures, to extinguish fire, and to ventilate buildings.
- Creates openings in buildings for forcible entry or ventilation purposes by using an ax, chisel, crowbar, electric saw or gasoline powered equipment.
- Protects property from water or smoke damage by use of waterproof salvage covers and smoke ejectors.
- ♦ Administers medical assistance to injured persons and those overcome by smoke and fire.
- ♦ Communicates with superior during fire using portable two-way radios or other means
- Engine companies inspect buildings checking for fire hazards in compliance with State and National fire prevention codes.
- ◆ Performs assigned duties in maintaining quarters, building, fire equipment and grounds.
- Participates in training on and off the job to stay proficient in all current practices of fire fighting and EMS skills. These shall include cold water rescue, swift water rescue, hazardous materials, EMS training and other types of training which are job related.
- Participates in the fostering of public fire safety and education.
- May drive and operate fire fighting vehicles and equipment.

Hours Required

Requires ability to perform in house housekeeping.

Physical Demands

- ♦ Requires lifting over 100 lbs. And occasionally over 150 lbs.
- During fire fighting activities when exposed to extreme heat, blood pressure and pulse are elevated.
- Medium duration of direct exposure to fire and its by-products. About 20 minutes inside of a working fire incident with regular breaks. This can continue until relieved.
- ♦ In addition to equipment, the personal protection equipment, including the self contained breathing apparatus weighs omitus. 85 – 100 pounds dry.
- ♦ Fire fighting is done in any environment. Temperatures within a structure can reach 1000 degrees and below zero outside the fire or during a rescue.

Physical Requirements

- ♦ Vision Normal vision needed with or without corrective lenses.
- ♦ Hearing Normal hearing is needed with or without hearing aids.
- ♦ Mobility Ability to walk and climb ladder or stairs.
- ♦ Body motion A full range of body motion is required to accomplish the above mentioned tasks.

TOWN OF DURHAM FIRE & RESCUE DEPARTMENT

INFECTIOUS DISEASE EXPOSURE CONTROL PLAN

Purpose

The purpose of this plan is to reduce the risk of exposure to blood borne and airborne pathogens such as the family of Hepatitis viruses, Human Immunodeficiency Virus (HIV), and Mycobacterium Tuberculosis (TB) among employees of the Durham Fire & Rescue Department.

The plan identifies specific tasks and procedures that place members in certain job classifications at increased risk for infection with these agents. The plan also describes measures to be taken following an occupational exposure incident involving blood and other potentially infectious materials. The plan outlines work practices and precautions, which, if followed carefully, can significantly reduce the risk of occupational transmission of Hepatitis, HIV, TB and other pathogens to Durham Fire & Rescue Department members.

The plan was drafted pursuant to Sections 1910.1030 and 1910.134 of Title 29 of the Code of Federal Regulations, United States Occupational Safety and Health Administration.

Program Administrator and Responsibilities

See Appendix A

Exposure Determination

Occupational Exposure means reasonably anticipated skin, eye, mucous membrane, respiratory, or parenteral contact with blood or other potentially infectious materials or persons that <u>may</u> result from the performance of a member's duties. It is recognized that members in the following job classifications have occupational exposure:

Trainees
Fire Personnel
EMS Personnel
Fire Police
Driver Operators

Exclusions:

Dispatchers
Juniors/Explorers
Auxiliary

It is further recognized that performance of the following tasks and procedures involves occupational exposure:

Patient Care in a confined area (TB)
Cardio-Pulmonary Resuscitation
Intravenous line insertion
Trauma Care
Emergency Child birth
Handling of soiled equipment and material
Restoration of equipment into service
Extrication

General

Universal blood and body fluids precautions shall be practiced and observed to prevent contact with blood and other potentially infectious materials. In 1985 the United States Centers for Disease Control developed this strategy to address concerns about transmissions of HIV in the health care setting. The concept of universal precautions stresses that all patients should be assumed to be infectious for Hepatitis Virus, Human Immunodeficiency Virus (HIV), and other blood borne pathogens.

In the Durham Fire & Rescue Department work setting, universal precautions shall be followed when members are likely to be exposed to blood, certain other body fluids (amniotic, pericardial, peritoneal, pleural, synovial, cerebrospinal fluids, semen, and vaginal secretions), or any fluid visibly contaminated with blood. Hepatitis and HIV has not been documented from exposure to other bodily fluids (feces, nasal secretions, sputum, sweat, tears, urine, omitus and saliva). Therefore universal precautions do not apply to these fluids, unless they are visibly contaminated with blood. However, when members encounter body fluids under uncontrolled, emergency circumstances in which the differentiation between fluid types is difficult, if not impossible, they should treat all body fluids as potentially hazardous and use universal precautions outlined below.

Members shall also employ respiratory protection with supplied equipment when members enter rooms housing individuals with suspected or confirmed infectious TB disease. A suspected case is one in which the facility has identified an individual as having symptoms consistent with TB. The CDC has identified the symptoms to be: a productive cough, coughing up of blood, weight loss, loss of appetite, lethargy, weakness, night sweats, or fever.

Engineering and Work Practices Controls

Engineering controls are objects that isolate or remove the airborne and blood borne pathogens from the workplace (like sharps disposal containers). Work practice controls are measures that reduce the likelihood of exposure by altering the manner in which the task is performed (such as prohibiting the recapping of needles or the reuse of particulate

respirators). When occupational exposure remains after implementation of these controls, personal protective equipment shall also be used.

Engineering controls shall be examined and maintained or replaced as necessary to ensure their effectiveness. The Durham Fire & Rescue Department shall maintain a supply of bags and containers used for collecting, transporting, and disposal of soiled materials. Members shall be instructed about the location of new containers and bags for use once old ones are full.

Hand washing constitutes the single most important work practice control. Hand washing facilities are located in restrooms throughout the Fire Department building. Hospitals also provide hand washing facilities (do not wait until return to station).

Antiseptic hand cleansers and paper towels or antiseptic towelettes are also available in fire and rescue apparatus. Antiseptic hand cleanser will be located in the glove compartment of each of the apparatus and in the patient compartment of the rescue.

Members shall be instructed to wash hands with soap and water as soon as is feasible, after using antiseptic hand cleansers or towelettes. Members shall be instructed that hand washing is mandatory under the following circumstances regardless of whether gloves are used:

- 4. After performing invasive procedures;
- 2. Before and after providing care to particularly susceptible patients such as those who are severely immunocompromised and newborns;
- 3. After unanticipated contact with mucous, blood, or other potentially infectious materials or non-intact skin;
- 4. After touching inanimate surfaces that are likely to be contaminated with blood or other body fluids; and
- 5. Between each direct patient contact.

For routine hand washing, a vigorous rubbing together of all surfaces of lathered hands for at least 20 seconds, followed by a thorough rinsing under a stream of water is necessary. For exposures of blood or other potentially infectious materials to skin surfaces other than hands, wash the affected area with soap and water. For exposure of potentially infectious materials to mucous membranes, members shall flush the affected membranes with tepid water for 10 to 15 minutes immediately or as soon as feasible.

Under no circumstances shall contaminated needles or other contaminated sharps be bent, sheared or recapped. Immediately after use, the disposable needle or other sharp shall be

placed in an appropriate container. Immediately or as soon as possible after use, sharps shall be placed in appropriate containers until processed.

Members shall not eat, drink, smoke, apply cosmetics or lip balm, or handle contact lenses in work areas where there is a reasonable likelihood of occupational exposure. These areas include:

Accident/fire scenes during patient contact Ambulances Rescues Fire Trucks Crime scenes Vaccination administration sites First Aid areas

Food and drink shall not be kept in refrigerators, freezers, shelves, counter tops, cabinets, or on bench tops where blood or other potentially infectious materials are present or could reasonably be expected to be present.

All procedures involving blood or other potentially infectious materials shall be performed in such a manner as to minimize splashing, spraying, spattering of these substances.

Mouth pipetting or other suctioning of blood or other potentially infectious materials is prohibited.

Specimens of blood and other potentially infectious materials shall be placed in containers that prevent leaks during collection, handling, processing, storage, transport, or shipping. This applies to soiled clothes and other articles collected in conjunction with emergency medical treatment by Fire and Rescue personnel. When such specimens are transported to or shipped from a town facility, they shall be placed within a second container which is puncture resistant, prevents leakage, and which bears the "Biohazard" label.

Equipment which may become contaminated with blood or other potentially infectious materials shall be examined prior to using and shall be decontaminated as necessary, unless the department can demonstrate that decontamination of such equipment or portions of such equipment is not feasible. If this exception is taken, the equipment shall bear a "Biohazard" label stating which portions remained contaminated. Prior to shipping or servicing contaminated equipment, the department shall convey this information to the following individuals:

- 1. All affected members.
- 2. The servicing representative.
- 3. The manufacturer or distributor (if involved in shipping/servicing).

Personal Protective Equipment

The Fire and Rescue Department shall provide appropriate personal protective Equipment (PPE) to all members who have an occupational exposure to potentially infectious materials or persons. Members shall be instructed in the circumstances and techniques for proper use and method of disposal or reuse of equipment. The cost of this equipment shall be borne by the department.

Gloves in appropriate sizes shall be readily accessible at the worksite. Members shall be able to select the type of glove that provides the best balance of protection and work efficiency. Suitable alternatives will be provided to members who are allergic to the gloves normally provided.

Gloves shall be worn when:

- 4. It can be reasonably anticipated that member's hands will come into contact with blood or other potentially infectious materials, mucous membranes or non-intact skin.
- 2. Handling items or surfaces soiled with blood or other potentially infectious materials.
- 3. When it can be reasonably anticipated that the member will receive needle, or other sharp, sticks.
- 4. Performing any invasive procedures.
- 5. Anticipating and/or engaging in physical contact with a patient.
- 6. Responding to or providing emergency medical treatment.

Disposable (single use) gloves such as surgical or examination gloves shall be replaced as soon as practical when contaminated, or as soon as feasible if they are torn, punctured, or when their ability to function as a barrier is compromised. Disposable gloves shall be changed between each direct client contact, and shall not be washed or decontaminated for reuse.

Rubber utility gloves may be decontaminated for reuse if the integrity of the gloves is not compromised. They must be discarded if they are cracked, peeled, torn, punctured or exhibit signs of deterioration or when their ability to function as a barrier is compromised.

Leather gloves cannot be decontaminated once soiled with blood or other potentially infectious materials. They must be sent out for cleaning or discarded when their ability to function as a barrier is compromised.

Masks in combination with eye protection devices shall be worn whenever splashes, or droplets of blood or other potentially infectious materials may be generated, and eye, nose, or mouth contamination can be reasonably anticipated. Eye protection devices include goggles, glasses with solid side shields, and chin length face shields. Masks are to be used only once. Eye protection devices that become contaminated should be discarded.

N100's shall be worn whenever the presence of an airborne pathogen such as tuberculosis or smallpox is suspected.

Protective clothing such as gowns or Tyvek suits shall be worn during situations in which occupational exposure is likely.

Since unanticipated exposure may result in contamination of a full set of clothing, members should keep an extra change of clothing at their worksite at all times.

The department shall bear the responsibility of laundering member's uniforms and other articles of clothing that become soiled through occupational exposure. Articles that cannot be laundered shall be replaced through the member's clothing allowance.

Housekeeping

The department shall ensure that all fixed worksites are maintained in a clean and sanitary condition. Contaminated work surfaces shall be decontaminated with an approved hospital disinfectant,

- 4. After completion of procedures.
- 2. Immediately or as soon as possible after surfaces become overly contaminated, or after any spill of blood or other potentially infectious materials.

All bins, pails, cans and similar receptacles as well as protective coverings for equipment intended for reuse which have a reasonable likelihood of being contaminated with blood or other potentially infectious materials shall be inspected daily and decontaminated as soon as possible after contamination.

Sharps that are contaminated with blood or other potentially infectious materials shall not be stored or processed in a manner that requires members to reach by hand into the containers where these sharps are placed.

Contaminated broken glassware must be removed by mechanical means only (e.g. brush and dustpan, tongs, or forceps). This and contaminated sharps shall be discarded as soon as is feasible in containers that are:

4. Closable.

- 2. Puncture resistant.
- 3. Leak proof on sides and bottom.
- 4. Labeled "Biohazard".

During use, containers for contaminated sharps shall be easily accessible to members and located as close as is feasible to the immediate area where sharps are used or can be reasonably anticipated to be found.

These areas include trauma kits and patient care areas on vehicles. Sharps containers carried in the trauma kits are to be considered for single patient use only.

When moving containers of sharps from the area of use, containers shall be closed immediately prior to removal or replacement to prevent spillage or protrusion of contents during handling, storage, transport or shipping. The containers shall be placed in a second container if leakage is possible.

The second container shall be:

- 4. Closable.
- 2. Constructed to contain all contents and prevent leakage during handling, storage, transport or shipping.
- 3. Labeled "Biohazard".

Reusable containers shall not be opened, emptied, or cleaned manually or in any other manner that would expose members to the risk of cuts or punctures.

Other regulated waste including contaminated disposable protective equipment shall be discarded in the same manner as contaminated sharps.

Disposal of all regulated waste shall take place in accordance with Maine State Department of Environmental Protection and OSHA regulations.

Contaminated Laundry

Contaminated laundry is linen, uniforms, clothing or other articles which have been soiled or are likely to have been soiled with blood or other potentially infectious materials, or may contain sharp objects such as needles, scalpel heads, or broken glass.

Contaminated laundry shall be handled as little as possible. It shall be bagged or placed into containers as soon as it is feasibly possible and shall not be sorted or rinsed. The bags or containers shall have the "Biohazard" label. Whenever contaminated laundry is wet and presents a reasonable likelihood of soak-through of or leakage from the bag or container, the laundry shall be placed and transported in secondary outer bags or containers which prevent soak through and/or leakage of fluids to the exterior. Whenever contaminated laundry is known to contain sharps, it shall be placed and transported in containers that are puncture resistant, leak proof on the sides and bottom and labeled "Biohazard".

Members who have contact with contaminated laundry shall wear protective gloves and other appropriate personal protective equipment. Members handling contaminated laundry shall first inspect all items for sharp objects. When encountered, the glass shards, needles, etc. shall be removed with tweezers and placed in a sharps container. When extensively studded with broken glass, items such as turnout gear shall be brushed over a plastic sheet. The glass shards and plastic sheet shall be placed in a sharps container and discarded appropriately.

Extremely contaminated items such as leather gloves and belts that cannot be laundered or otherwise disinfected shall be considered regulated waste and discarded appropriately. All other contaminated laundry shall be bagged, labeled and cleaned at Durham Fire and Rescue station.

Testing, Vaccination, Post-Exposure Evaluation and Follow up

The Department shall make available the Hepatitis B vaccination series to all members who have occupational exposure, and post-exposure evaluation and follow-up to all members who have had an exposure incident. The vaccination and follow-up procedures shall be made available at no cost to the member through <u>US Healthworks</u> (see Appendix A). Members in need of follow-up care that is outside the scope of OH&R shall be referred to an appropriate specialist in the surrounding area. All procedures shall be given according to standard medical practice. An accredited laboratory shall perform all laboratory tests.

Hepatitis B vaccination shall be made available to members after required training is completed, and within 10 working days of initial assignment to all members who have occupational exposure unless:

- ✓ The member has previously received the complete Hepatitis B vaccination series;
- ✓ Antibody testing has revealed that the member is immune; or
- ✓ The vaccine is contraindicated for medical reasons.

If a routine booster dose of Hepatitis B vaccine is recommended by the Center for Disease Control at a future date, such booster dose(s) shall be made available in accordance with this plan.

If a member chooses not to receive HBV vaccination, the member must sign a letter of declination (see attachment#2). Members who initially decline vaccination may request it at any future date, if they are still covered by this exposure control plan.

Respirators shall be fit tested on an annual basis per the department's respiratory protection program.

Medical surveillance (at no cost to members) including preplacement evaluation, administration and interpretation of TB MANTOUX skin test, and periodic evaluations shall be offered to members as follows: an initial baseline screening at the time of employment for all members in the covered facilities; re-testing every six months for workers with exposure as defined under occupational exposure section of this program. Testing can be declined or requested by members at any time as per standard.

Post Exposure and Follow-up

Body Fluid Exposure-

An exposure incident is defined as a specific eye, mouth, other mucous, membrane, non-intact skin or parenteral contact with blood or other potentially infectious material that results from the performance of the member's duties. In the event of an exposure, the member will have the opportunity, at no cost to the member, to receive a confidential medical evaluation conducted by <u>US Healthworks</u>, (see <u>Appendix A</u>), or the closest appropriate emergency department for off hours.

The medical evaluation and follow-up will consist of the following elements:

- 4. Documentation of the routes of exposure and circumstances by which exposure occurred.
- 2. Documentation of infectious agent(s) known to be present in blood or other body fluid(s) to which the member was exposed. A good faith attempt will be made to obtain consent from the source patient to collect and test their blood for the presence of HIV and HBV. When the source individual is already known to be infected with HBV or HIV, testing for these infections need not be repeated.

If the Department learns of HBV or HIV status of the source individual, the member shall be informed of the Maine State Law as it concerns medical confidentiality in general, and the disclosure of the identity and infectious status of the source individual. The Department and the member both bear liability should the source individual's confidentiality be breached.

- 3. The exposed member will be offered serologic HIV/HBV testing in the manner recommended by the Center for Disease Control as soon as possible after the incident and the opportunity for retesting as recommended by the CDC. Testing will be performed at an accredited laboratory at no cost to the member. If the member initially declines serologic testing, he/she may elect to have the baseline studies drawn and saved for up to 90 days. Hepatitis C testing (HCV) for both the exposed member and the source, to reflect current CDC advisory, may also be conducted. At any point during this time period, he/she may elect to have the tests performed on the saved blood.
- 4. Pretest and post-test counseling shall be provided in conjunction with HIV serologic testing as required by Maine State Law. Follow-up will also include medical evaluation of any febrile illness that occurs up to 12 weeks past exposure, and the use of safe and effective post exposure measures according to standard medical practice.
- 5. Post exposure HBV testing, prophylaxis (i.e. gamma globulin, Hep B immune globulin) when medically indicated, at no cost to the member.

Following an exposure incident, the Department shall forward to the health care professional of his/her choice the following information:

- 4. A copy of the OSHA standard that covers blood borne pathogens.
- 2. A description of the member's job duties as they relate to the exposure incident.
- 3. A description of how the exposure occurred.
- 4. A description of the route of exposure.
- 5. The results of the blood tests from the source individual, if results are available.
- 6. A record of whether or not the member has been vaccinated for HBV.
- 7. All other medical records on the member that could relate to the exposure incident.

The health care professional's written opinion shall be obtained within 15 days of the completion of the evaluation. One copy of the written opinion shall be provided to the member and one copy shall be provided to the Infectious Disease Control Officer. The written opinion for the Hepatitis B vaccination shall be limited to whether vaccination is indicated for a member, and if the member has received such vaccination. The written opinion for post-exposure evaluation and follow-up shall be limited to the following information:

4. That the member has been informed of the results of the evaluation.

2. That the member has been told about any medical conditions resulting from exposure to blood or other potentially infectious materials which require further evaluation or treatment.

All other findings or diagnoses shall remain confidential and shall not be included in the written report.

Airborne Exposure-

Is defined as an exposure to high hazard procedure performed on an individual with suspected or confirmed TB disease and which has the potential to generate potentially infectious airborne respiratory secretions. Examples of high hazard procedures include aerosolized medication treatment, bronchoscopy, sputum induction, endotracheal intubation and suctioning procedures, and autopsies.

Evaluation and management will be provided at no cost to workers with a positive skin test, or who are exhibiting symptoms of TB, including work restrictions for infectious members. Workers who experience a TB exposure incident (exposure to a patient with infectious TB for whom infection control precautions have or were not taken) shall also be managed according to CDC recommendations.

Initial mantoux testing and follow-up testing may occur at 10-12 weeks post exposure and thereafter as defined by current Public Health Department practices/directives.

When indicated, member follow-up evaluation and testing may occur at determined intervals up to 1 year post exposure.

Communication of Hazards to Members

Labels

Warning labels shall be affixed to containers of regulated waste, refrigerators, and freezers containing blood of other potentially infectious materials, and other containers used to store, transport, or ship blood or other potentially infectious materials. Warning labels shall include the following legend.

Biohazard

These labels shall be fluorescent orange or orange-red, or predominantly so, with lettering and symbols in a contrasting color. Labels shall be affixed as close as feasible to the container by string, wire, adhesive, or other method that prevents their loss or unintentional removal.

Exceptions to this labeling requirement are as follows:

4. Red bags or red containers may be substituted for labels.

2. Individual containers of blood or other potentially infectious materials that are placed in a labeled container during storage, transport, shipment, or disposal.

Labels required for contaminated equipment shall be in accordance with this section and shall also state which portions of the equipment remain contaminated.

Regulated waste that has been decontaminated need not be labeled or color-coded.

Information and Training

All members with occupational exposure shall participate in a training program that must be provided at no cost to the member and during working hours. Training shall be provided as follows:

- 4. At the time of initial assignment to tasks where occupational exposure may take place, or
- 2. At the time of the implementation of this Exposure Control Plan, and
- 3. At least annually thereafter.

The Department shall provide additional training when changes such as modification of tasks or procedures or institution of new tasks or procedures affect the member's occupational exposure. The additional training may be limited to addressing the new exposures created. Material appropriate in content and vocabulary to educational level, literacy and language of members shall be used.

The training program shall contain the following elements:

- 4. An accessible copy of the regulatory text of the OSHA standard 29 CFR 1910-1030 and an explanation of its contents.
- 2. A general explanation of the epidemiology and symptoms of blood borne diseases.
- 3. An explanation of the modes of transmission of blood borne pathogens.
- 4. An explanation of this exposure control plan and the means by which the member can obtain a copy of the plan.
- 5. An explanation of the appropriate methods for recognizing tasks and other activities that may involve exposure to blood and other potentially infectious materials.
- 6. An explanation of the use and limitations of methods that will prevent or reduce exposure including appropriate engineering controls, work practices, and personal protective equipment.

- 7. Information on the types, proper use, location, removal, handling, decontamination, and disposal of personal protective equipment.
- 8. An explanation of the basis for selection of personal protective equipment.
- 9. Information on the Hepatitis B vaccine, including information on its efficacy, safety, method of administration, the benefits of being vaccinated, and the vaccine and vaccination will be offered free of charge.
- 10. Information on the appropriate actions to take and persons to contact in an emergency involving blood or other potentially infectious materials.
- 11. An explanation of the procedure to follow if an exposure event occurs, including the method of reporting the incident and the medical follow-up that will be made available.
- 12. Information on the post-exposure evaluation and follow-up that the employer is required to provide for the employee following an exposure incident.
- 13. An explanation of the labels required by provisions of this plan.
- 14. An opportunity for interactive questions and answers with the person conducting the training session.

The person conducting the training shall be knowledgeable in the subject matter covered by the elements contained in the training program as it relates to the workplace that the training will address.

RECORDKEEPING

The Department shall establish and maintain an accurate record for each member with occupational exposure in accordance with 29 CFR 1910.20.

The record shall include:

- 4. The name, job title/classification, department, and social security number of the member.
- 2. A copy of the member's Hepatitis B vaccination status including the dates of all Hepatitis B vaccinations and any medical records relative to the member's ability to receive vaccination, such as the Hepatitis B Declination Statement or statement of Medical contraindication to vaccine.
- 3. A copy of the written opinion issued by the medical practitioner subsequent to an exposure incident.

4. A copy of information provided to the medical practitioner in connection with an exposure incident referral.

Member medical records shall be kept confidential and shall not be disclosed or reported without the member's express written consent to any person within or outside the workplace except as required by this section or as may be required by law, including the workers Compensation statutes.

The Department shall maintain the member's medical records for at least the duration of employment plus 30 years in accordance with 29 CFR 1910.20.

Training Records

Training records shall include the following information:

- 4. The dates of the training sessions.
- 2. The contents or a summary of the training sessions.
- 3. The names and qualifications of persons conducting the training.
- 4. The names and job titles of all persons attending the training sessions.

The Department shall maintain training records for three years from the date on which the training occurred.

Record Availability

Member medical records and training records shall be made available upon request to the Assistant Secretary of Labor for Occupational Safety and Health or the Director of the National Institute for Occupational Safety and Health or their designated representative(s) for examination and copying.

Member training records shall be provided upon request for examination and copying to members or to their designated representative(s).

Member medical records shall be provided upon request for examination and copying to the subject member and to anyone having the written consent of the subject member.

Transfer of records

The Department shall comply with the requirements set forth in 29 CFR 1910.20 (h). If the Department ceases to do business and there is no successor employer to receive and retain the records for the prescribed period, the Department shall notify the Director of

the National Institute for Occupational Safety and Health at least three months prior to their disposal and transmit them to the Director, if required by the Director to do so, within the three-month period.

EVALUATION OF EXPOSURE VICTIMS

Within seven days of each exposure incident an ad hoc committee shall be convened by the Personnel Director. Members of the committee shall include:

- 4. Personnel Director.
- 2. The affected member.
- 3. The member's Department Director or his designee.
- 4. Other personnel so designated by the Personnel Director or the Department Director.

Tasks of the committee shall include:

- 4. Investigation of the circumstances surrounding the incident.
- 2. Evaluation of the investigation findings.
- 3. Development of recommendations to the affected member's Department Director on how to avoid future exposure incidents.
- 4. Amendment of this exposure control plan and future training sessions, if applicable and/or necessary.

EFFECTIVE DATES

The effective date of this policy shall be December 7, 1994

Reviewed and updated January 9, 2006

Reviewed September 30, 2008

Reviewed and updated July 1, 2009

Reviewed July 12, 2010

Reviewed and updated November 21, 2011

Reviewed December 20, 2012

Reviewed June 16, 2014

Reviewed October 26, 2015

Reviewed September 13, 2016

Next scheduled evaluation of this policy shall be September 13, 2017

DURHAM FIRE & RESCUE DEPARTMENT EXPOSURE CONTROL PLAN

FORMAT FOR REPORTING INCIDENT TO HEALTHCARE PROVIDER

Name:
Date of
Incident:
Location of
incident:
Procedure being
performed:
Circumstances of
incident:
Source individuals HBV and HIV status if
Known:
Members HBV status or Vaccination
status:
Route of
exposure:
ı
Also include any relevant medical records of the employee, especially with regard to

ability to receive vaccine.

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DURHAM FIRE & RESCUE DEPARTMENT

Exposure Control Plan

WAIVER FORM HEPATITIS B IMMUNIZATION

I understand that due to my occupational exposure to blood and other potentially infectious materials I may be at risk of acquiring Hepatitis B Virus (HBV) infection. I have been given the opportunity to be vaccinated with Hepatitis B vaccine, at no charge to myself. However, I decline Hepatitis B vaccination at this time. I understand that by declining this vaccine, I continue to be at risk of acquiring Hepatitis B, a serious disease. If, in the future, I continue to have occupational exposure to blood or other potentially infectious materials, and want to be vaccinated with Hepatitis B vaccine, I can receive the vaccination at no charge to me.

DATE:	
SIGNATURE OF MEMBER	
DATE:	
WITNESS	

DURHAM FIRE & RESCUE DEPARTMENT

EXPOSURE CONTROL PLAN

PERSONAL EXPOSURE REPORT for blood borne pathogens

YOUR NAME:	DATE:
NAME OF PERSON YOU WERE EXPOSED TO:	
PATIENT'S ADDRESS	
SUSPECTED DISEASE EXPOSED	
TO:TRANSPORTED TO:	
DATE OF EXPOSURE:	
TRANSPORTED BY:	
TIME OF EXPOSURE:	
TYPE OF INCIDENT (10-55, HOUSE FIRE ETC.)	
WHAT FLUID WERE YOU EXPOSED	
WHAT PARTS OF YOUR BODY WAS EXPOSED:	
DID YOU HAVE ANY OPEN CUTS, SORES OR EXPOSED:	RASHES THAT BECAME
WHERE AND WHAT, BE SPECIFIC:	
HOW WERE YOU EXPOSED:	
DID YOU SEEK MEDICAL ATTENTION:	
WHERE	DATE:
OFFICER RECEIVING REPORT	DATE
MEMBER FILING REPORT (SIGNATURE)	
DATE OF EMPLOYMENT	

DURHAM FIRE & RESCUE DEPARTMENT "TB" EXPOSURE CONTROL PLAN

TUBERCULOSIS TESTING DECLINATION FORM

I understand that due to my possible occupational exposure to active tuberculosis patients I may be at risk of acquiring tuberculosis. I have been given the opportunity to be tested regularly utilizing the Mantoux skin test, at no cost to myself.

I would like to be tested.

	stand that by declining this test I continue to be sillness. If, in the future, I wish to be tested I
Signature of employee	Printed name of employee
 Date	

DURHAM FIRE & RESCUE Hazard Communication

Hazard Communication

Durham Fire & Rescue 615 Hallowell Rd. Durham, Maine 04222

Reference: OSHA 1910.1200 Ranking Official's Signature

Approved by:	
Title:	
Date:	
Hazard Communication Coordinator:	
Title: Safety Officer	

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I. INTRODUCTION

As part of Durham Fire & Rescue's overall safety and health program, a chemical hazard communication program has been established. The Hazard Communication Program is designed to comply with the Occupational Safety and Health Administration (OSHA) Hazard Communication Standard.

II. OBJECTIVE

The objective of the Hazard Communication Program is to prevent occupational injuries and illnesses related to chemical exposure by educating personnel about workplace chemical hazards.

III. SCOPE

The Hazard Communication Program applies to all work areas where hazardous chemicals are known to be present both under normal conditions and in a foreseeable emergency. The Chief has the responsibility for overall coordination of the Hazard Communication Program. The Safety Officer has the responsibility to administer and implement the program at Durham Fire & Rescue.

The Hazard Communication Program has four major components:

- Container labeling and other forms of warning;
- Safety Data Sheets (SDS's);
- Personnel education and training;
- Written program and chemical inventory

IV. HAZARDOUS CHEMICALS

The definition of "hazardous chemicals" as given by OSHA is "any chemical which is a physical hazard or health hazard".

Chemical physical hazard characteristics include substances which are:

- combustible,
- compressed gases,
- explosive,
- flammable,
- organic peroxides,
- oxidizers.
- pyrophoric, and
- unstable (reactive) or water reactive

Chemical health hazard includes substances which are:

- toxic or highly toxic,
- irritants,
- sensitizers.
- carcinogens, and those with
- target organ effect

V. HAZARD COMMUNICATION PROGRAM

This written Hazard Communication Program outlines and describes how the following information will be organized and transmitted:

- A. List of hazardous chemicals known to be present in the workplace.
- B. Information on precautionary labels and other forms of warning for known hazardous chemicals in the workplace.
- C. Safety Data Sheets (SDSs) for known hazardous chemicals in the workplace.
- D. Methods used to provide personnel information and training.
- E. Methods used to inform personnel of hazards of non-routine work.
- F. Methods used to inform contractor employers of any hazardous chemicals to which contractor employees may be exposed.

The Hazard Communication Program is available for review by all personnel in the handbook in dispatch.

VI. CHEMICAL INVENTORY LIST

The Maintenance Officer has the responsibility to maintain an inventory list of known chemicals in the workplace. Any changes to the inventory list should be approved by the Chief.

The chemical inventory list is available to personnel during their work shift and is located in their work area. Refer to Material Safety Data Sheet section for specific location(s). Personnel who have questions about the chemical inventory list should contact their Company Officer.

See Appendix 1 for the inventory of chemicals.

VII. PRECAUTIONARY LABELING

A. Containers in the Workplace

The Chief and the Safety Officer have the responsibility to insure all known hazardous chemicals present in the station must display, in English, a precautionary label stating:

- Identity of the hazardous chemical(s)
- Appropriate hazard warning(s)

In the event of an improperly labeled hazardous chemical container, a proper label will be requested, by telephone and letter from the chemical supplier. Failure of a supplier to correct labeling deficiencies within 60 days will result in suspension of use of the affected product.

All labels on incoming chemicals must not be defaced in any way. Observation or other detection of defaced labels must be immediately reported to Company Officers so appropriate labels can be applied.

B. Portable Containers

All portable containers of hazardous chemicals require labeling. The exception to this policy is that portable containers of hazardous chemicals do not have to be labeled if they contain chemicals transferred from a labeled container, and are intended only for the immediate use by and remain the constant control of the personnel who perform the transfer. All other portable containers and usage will require labeling. Personnel who have questions about portable container labeling should contact their Company Officer. The personnel who use the portable container are responsible for placing the label on the container, and the Company Officer is responsible to see that labeling is done.

C. Piping Systems

Labeling of chemical pipes is not specifically required by the Hazard Communication standard, but personnel must be aware and informed of the contents in chemical pipes. This can best be accomplished by labeling all piping used to transfer the same hazardous chemicals. The latest American National Standard Institute (ANSI) standard (ANSI 13.1-1981), Scheme for Identification of Piping Systems, is used as a guide for location and design of pipe labels. Basic guidelines for piping systems are as follows:

- 1. Legends should be brief, informative and simple for greatest effectiveness.
- 2. The number and location of labels should be based on the particular system. For example: labels must be clearly visible, near valves or other connections, on each side at wall where pipe penetrates, where pipe changes direction and reasonable intervals on long runs of pipe. (Example: one identification label per 50 linear feet of pipe).
- 3. Color can be used to identify characteristics of contents but only in combination with legends. Refer to ANSI standard referenced above for proper color schemes.
- 4. Attention should be given to visibility of pipe markings, contrast of legend with background and lettering size.

The contents and hazards associated with unlabeled chemical pipes in the work area will be transmitted to personnel by their immediate Company Officer. Material Safety Data Sheet(s) will be available on contents of unlabeled chemical pipes.

Durham Fire & Rescue will use a "Permit" for breaking and opening chemical piping systems to assure personnel know the hazards of substances in the pipes and the proper protective measures personnel should take.

Personnel who have questions about piping systems labels and/or content hazards, should contact their Company Officer.

D. Update and Review

The Chief is responsible for reviewing the labeling system annually and updating if necessary. Changes in the labeling system will be transmitted to affected Company Officers and personnel.

Personnel who have questions about the precautionary labeling system should contact their Company Officer.

VIII. SAFETY DATA SHEETS (SDS'S)

A. SDS Format

SDS's are written or printed material concerning product hazard determination, which are prepared and distributed with chemicals by chemical manufacturers and distributors.

SDS's are written in English and contain the following information:

- Identity of the chemical as provided on the container label;
- Physical and chemical characteristics of the material;
- Physical hazards of the material;
- Health hazards of the material;
- Primary route(s) of entry;
- Exposure limits, Threshold Limit Value (TLV), OSHA Permissible Exposure Limit (PEL), or Supplier recommended limits;
- Whether or not the material or components have been found to be a potential carcinogen by the International Agency for Research on Cancer (IARC), National Toxicology Program (NTP), or by OSHA;
- Applicable precautions for safe handling and use;

- Applicable control measures;
- Emergency and first-aid procedures;
- Date of preparation or date of last change;
- Name, address and telephone number of the chemical manufacturer, importer, employer or other responsible party, who can provide additional information.

B. Obtaining SDS's

On all Purchase Requisitions for any chemicals, the Maintenance Officer will verify: "SDS on file," or "SDS required," or "material exempt."

The Maintenance Officer is responsible for obtaining SDS's for the company. A SDS should be available for every hazardous chemical listed on the inventory list. In the event a SDS is not available, the Maintenance Officer will use the following procedures to obtain SDS's:

- 1. The supplier will be contacted by telephone and letter, and all correspondence and communication documented as proof of effort to comply.
- 2. If a supplier should not satisfy the first written request within 30 days, a second written request for a SDS should be sent to the supplier and the Department of Labor will be contacted if SDS is not received within 15 days.
- 3. All requests to suppliers and the Department of Labor including letters and telephone calls must be documented and maintained on file.

C. Review of SDS's

The Chief is responsible for reviewing all incoming data sheets for new and significant health/safety information. Any new information will be transmitted to Company Officers so appropriate measures can be taken to inform affected personnel.

If deficiencies exist or additional information is needed concerning SDS's, the chemical manufacturer or supplier will be contacted to obtain necessary information.

D. SDS Maintenance

The Chief is responsible for maintaining the SDS's.

Notebook locations can be found in Appendix 2.

If SDS's are not available or new chemicals in use do not have SDS's, personnel should contact their immediate supervisor.

A master copy of the SDS's and inventory list will be maintained by the Chief.

E. New/Trial Chemicals

The Chief and the Safety Officer must approve all new/trial chemicals before use by personnel. A SDS must be reviewed before the chemical is used. A new chemical purchase request should be completed by the requestor and sent to the Chief prior to personnel use of a new chemical.

IX. PERSONNEL TRAINING AND EDUCATION

Effective personnel training and education is the most critical component of the hazard communication program. A properly conducted training program will insure that personnel are aware of hazards in the workplace and appropriate control measures to protect themselves.

The Training Officer coordinates the personnel training and education program for the facility.

A. Program Outline

All personnel who work in areas where hazardous chemicals are used and/or maintained and those who may be exposed in an emergency are involved in the personnel training and educational program. The program is presented in two phases:

- (1) General Information Training
- Explanation of the Hazard Communication Standard;
- Location and availability of written hazard communication program;
- Operations in the work area where hazardous chemicals are present;
- General introduction of chemical hazards, labeling and Material Safety Data Sheet (SDS's)

General information training is administered by the Training Officer during the initial orientation.

- (2) Specific Hazard Training
- Location of hazardous chemicals in the work area;
- Discussion of methods and means of determining/detecting the presence/ release of hazardous chemicals in the work area;
- The chemical physical and health hazards in the work area;
- Explanation of internal labeling system;
- Hazards associated with piping systems;
- Review of appropriate work practices, personal protective equipment and emergency procedures;
- Access to safety and health information;
- Work area list of hazardous chemicals and Safety Data Sheets;
- How to obtain additional information.

B. New Hires

Whenever a person is hired for employment, hazard communication training and education will be provided at the time of their initial assignment.

New Personnel training will be provided by the Training Officer as part of new personnel orientation at the time of initial employment and prior to handling hazardous chemicals. New hires will sign a Personnel Orientation Sheet.

C. New Hazard

There is one way in which a new hazard may be introduced:

1. A new hazardous chemical may be brought into the workplace

X. NON-ROUTINE WORK

Occasionally personnel will be asked to perform non-routine work, which can be defined as work not normally performed by personnel during the normal course of job duties. Example of non-routine work could be, but not limited to:

- Floor stripping/coating;
- Building and structural repair;

- Intensive maintenance activities during plant shutdowns;
- Breaking and opening piping systems.

The following procedures will be used when personnel perform non-routine work:

A. The Chief will determine the need for non- routine work and the hazards associated with the work. The Company Officer can provide assistance to determine the hazards involved.

B. The Company Officer will train the personnel performing the non-routine work for the hazards associated with the work and of procedures/permits to follow. The training should be given each time prior to personnel performing non-routine work.

Personnel share in the responsibility by ensuring their Company Officer knows that non-routine work will be performed.

Durham Fire & Rescue may require that special work permits be required for some non-routine work such as welding, cutting, and breaking and opening piping systems. Personnel should contact their Company Officer with questions concerning non-routine work.

XI. CONTRACTORS

It is Durham Fire & Rescues policy that when contractors are working on Town property they must comply with all OSHA standards and requirements, where applicable. The Hazard Communication Standard requires all contractors working on company property to be informed by the Chief concerning applicable workplace hazardous chemicals which the contractor's employees may be exposed to while performing their work and of appropriate protective measures. This information is provided so contractor employers can properly train their employees. In addition, the contractor will inform Durham Fire & Rescue about hazardous chemicals that the contractor brings onto Town property so that precautions can be taken.

The following procedure is utilized with contractors, prior to the contractor's employees beginning work on Town property.

A. Individual Officers

Responsibilities:

- 1. Include with the request for a quote for projects requiring on-site work by contractor employees, a general letter of notification that contractor employees may be exposed to hazardous materials.
- 2. Obtain along with the vendor's quotation and forward to the Chief, a signed acknowledgement of contractor hazard notification.
- 3. Forward all requests for further hazard information to the Chief.
- 4. Minimize exposure of contractor employees to hazardous materials.
- B. Chemical Inventory

The Chief will determine and list what hazardous chemicals the contractor's employees may be exposed to while performing their work.

C. Safety Data Sheets

The contractor employer will be provided with the list of hazardous chemicals the contractor's employees may be exposed to while performing their work and the availability of Safety Data Sheets, which list appropriate protective measures. A copy of the form signed by the contractor employer will be maintained by the Chief.

D. Contractor Supplied Chemical Inventory

The contractor employer will provide, in writing, a list of chemicals with Safety Data Sheets the contractor will bring onto Town property.

The Chief will review the chemical list and SDS's provided by the contractor and will notify the supervisor of the area where the contractor is working of the potential exposure and appropriate protective measures.

E. Documentation

All contacts with contractors concerning hazardous communication shall be documented and filed.

XII. AUDIT

A. Hazard Communication Program Annual Review

The Hazard Communication Program will be audited at least annually by the Safety Officer.

A report will be generated from the review audit and sent to the Chief.

APPENDIX 1 Chemical Inventory

APPENDIX 2 Notebook Locations

- 1. Apparatus Bays.....On the wall between the boiler room and maintenance room.
- 2. Maintenance Room....On the bookshelf on the back wall.
- 3. Chief's Office.....On the bookshelf

Emergency Action Plan

COMPANY NAME: Durham Fire & Rescue

I. POLICY

It is the policy of this company to take every possible action to comply with all emergency regulations and protect employees in emergency situations.

II. EMERGENCY PLAN COORDINATOR

The Chief is responsible for making sure this emergency action plan is kept up to date, practices, and reviewed periodically.

The Emergency Plan Coordinator can be reached at

Durham Fire & Rescue, 615 Hallowell Rd, Durham Maine 04222, 207 353-2473

III. REPORTING PROCEDURES

(List the types of emergencies that could occur at your workplace and how employees should report them. Options include internal telephone numbers, intercom, public address systems, etc. Employees must also notify external emergency responders if the company uses them for help in emergencies.)

Type of Emergency	How to Report
Fire	Call 911
Explosion	Call 911
Weather	Call 911
Bomb threat	Call 911
Chemical Spill/Leak	Call 911
Violence	Call 911
Medical	Call 911
Other (list)	

Reporting procedures are posted in dispatch.

IV. EVACUATION PROCEDURES

A. Emergency Escape Procedures and Routes

Emergency escape procedures and route assignments have been posted in each work area, and all employees have been trained by supervision in the correct procedures to follow. New employees are trained when assigned to a work area. A

sample escape procedure and escape route sheet of the type posted in work areas is included with this plan.

B. Employee Accountability Procedures after Evacuations

Each supervisor is responsible for accounting for all assigned employees, personally or through a designee, by having all such employees report to a predetermined designated rally point and conducting a head count. Each assigned employee must be accounted for by name. All supervisors are required to report their head count (by name) to the Emergency Evacuation Coordinator. A summary of the evacuation rally points, together with the identities of supervisors and assigned employees who must report to each, is included with this plan.

D. Alarm System

Describe the alarm system to be used to notify employees (including disabled employees) to evacuate and/or take other actions. The alarms used for different actions should be distinctive and might include horn blasts, sirens, or even public address systems.

Pull the fire alarm or if necessary the phone paging system may be used for announcements. Pull stations are located:

Rear Exit in Hall

Front Exit in Meeting Room

Side Exit in Truck Bays

For the paging system on the phones press page, both, all and then speak into the handset.

Alarm systems for notifying all employees in case of an emergency are:

Action to be taken	Alarm system	
Evacuation	Fire Alarm pull stations	
Special Instructions	Phone System paging system	

(<u>OSHA Standard 29 CFR 1910.165</u>, <u>Employee Alarm Systems</u>, provides guidance on emergency alarms.)

E. Sheltering in Place

If sheltering in place is required personnel should remain inside. If necessary lock down the building or move to one of the interior rooms without windows. Deputy Offices, Kitchen, Dispatch, AV Room, Equipment Room, Maintenance Room, Boiler Room, Compressor Room, or Hose Tower.

F. Training

The following personnel have been trained to assist in the safe and orderly emergency evacuation of other employees.

Name	Title	Work Area	Special Assignment
William St. Michel	Chief	Chief's Office	

Training is provided for employees when:

- 1. The plan was initiated
- 2. Responsibilities change
- 3. New employees are hired or transferred
- 4. At least annually

V. FIRE EXTINGUISHERS

In the event of fire only employees trained in the use of extinguishers will use them, all others will evacuate.

VI. EMPLOYEE ACCOUNTABILITY PROCEDURES FOLLOWING AN EMERGENCY EVACUATION

Each supervisor is responsible for accounting for each assigned employee following an emergency evacuation. The following procedures apply:

- Rally points have been established for all evacuation routes and procedures. These points are designated on each posted work area escape route.
- 2. All work area supervisors and employees must report to their designated rally points immediately following an evacuation.
- 3. Each employee is responsible for reporting to his or her supervisor so that an accurate head count can be made. Supervisors will check off the names of all those reporting and will report those not checked off as missing to the Emergency Evacuation Coordinator.
- 4. The Emergency Evacuation Coordinator will be located at one of the following locations:
 - A. Primary Location: Front of the Station by mailbox
 - B. Secondary Location: Side Parking Lot by Dry Hydrant
- 5. The Emergency Evacuation Coordinator will determine the method to be utilized to locate missing personnel in each situation.

VII. RESCUE AND MEDICAL DUTIES

It may become necessary in an emergency to rescue personnel and perform some specified medical duties, including first-aid treatment. All employees assigned to perform such duties will have been properly trained and equipped to carry out their assigned responsibilities properly and safely.

Name	Location Assignment	Special Assignment	Training Provided
Licensed EMS Personnel			State License
Certified Fire Fighters			State Certification

Special Instructions and Procedures

All personnel performing emergency rescue and medical duties must follow these instructions:

- 1. Place personal safety first
- 2. Use proper PPE
- 3. Use same protocols and procedures as on emergency responses

VII. CONTACTS

For more information about this plan, contact the Emergency Action Coordinator.

The following people should be contacted during off-hours emergencies

1. Chief St. Michel 207 353-6588 or 207 841-9185

2. Deputy Russell 207 407-3054 or 207 837-8748

3. Deputy Groves 207 353-6577 or 207 504-6540

VIII. PLAN REVIEW

Plan content will be reviewed annually at the same time as annual mandatory trainings.

Implemented June 20, 2009
Reviewed July 12, 2010
Reviewed November 21, 2011
Reviewed December 20, 2012
Reviewed June 16, 2014
Reviewed October 26, 2015
Reviewed September 13, 2016
Next scheduled review September 13, 2017