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**SPRING GROVE
FIRE DEPARTMENT**

OPERATIONS GUIDE

TABLE OF CONTENTS

I EQUIPMENT

Scott Air Pack

II GENERAL

Responding to Incidents
Responding to Incidents – Radio Usage

III SAFETY

Responding to Incidents
Fire Personnel Accountability At Emergency Incidents
Bloodborne Diseases

EQUIPMENT – SCOTT AIR PACK

PURPOSE:

To provide protection, and a working knowledge of the Self-contained Breathing Apparatus, (herein and after known as the “SCBA”) for each member of the Spring Grove Fire/EMS Department when entering work areas with hazardous atmospheres.

1. There are four (4) basic hazardous atmospheric conditions a fire fighter may encounter.
 - ▶ Heat
 - ▶ Smoke
 - ▶ Toxic Gas
 - ▶ Oxygen Deficient

USE OF POSITIVE PRESSURE SCOTT AIR MASKS

1. Check pressure on air cylinder – 1900 psi minimum.
2. Put Air mask on using one of the following methods:
 - A. SEAT MOUNT METHOD (Back up to brackets)
 1. Check tank pressure and open tank valve, check audio alarm.
If audio alarm does not sound, *do not use mask.*
 2. Slip arm through shoulder harness.
 3. Adjust shoulder straps.
 4. Connect waist belt.
 - B. OVER THE HEAD METHOD
 1. Check tank pressure and open tank valve, check audio alarm.
If audio alarm does not sound, *do not use mask.*
 2. Lift tank/harness assembly over head, allowing shoulder straps to fall over elbows.
 3. Use the buddy system to make sure tank valve is lined up properly (away from body.)
 4. Adjust shoulder straps.
 5. Connect waist belt.
 - C. COAT METHOD
 1. Place the face piece assembly aside on a clean dry area.
 2. Check tank pressure and open tank valve, check audio alarm.
If audio alarm does not sound, *do not use mask.*
 3. Grab the shoulder strap of the right shoulder with the right hand or left shoulder strap with the left hand. Slip elbow between the strap and tank cylinder while raising the shoulder strap and swing the cylinder across the

- back and slip the other arm into the shoulder strap.
4. Bend forward and cinch up, adjusting the straps.
 5. Connect waist belt.
3. Put on face piece using the following method:
- A. Make sure head straps are fully extended, then grip the face piece between thumb and finger. Insert the chin into the face piece and pull headbands back over the head. To obtain a firm and comfortable fit, the face straps should be adjusted as follows:
 1. See that straps lie flat against head.
 2. Tighten lower or neck straps.
 3. Tighten side straps – do not tighten forehead straps.
 4. Place both hands on headband pad and position on crown of head.
 5. Repeat steps 2 and 3.
 6. Tighten forehead or front strap as needed.
 - B. Check the tightness of face piece by sealing off breathing tube with the palm of your hand. The face piece should collapse on the face if the face piece is sealed satisfactorily. Connect face piece hose to regulator before entering the contaminated area.
4. Breathe normally as the apparatus automatically satisfies breath-in requirements.

PRECAUTIONS AND PRACTICES WHEN USING A SCOTT AIR PACK

1. The apparatus will afford breathing protection for a period of time depending on Exertion put out by the wearer (15 minutes – small unit / 30 minutes – large unit.) If possible keep a check on the pressure gauge on the regulator.
2. During normal uses the by-pass valve will not be used, however, there is a specific purpose and use for the valve. This is if the regulator valve becomes inoperative, then you can open the by-pass valve to receive air. Whenever you have to open this valve, you should immediately leave the area. When you leave the area, your partner must also leave. The by-pass valve can also be used to clear the face piece incase it fogs.

REMOVAL OF THE MASK

1. Disconnect the mask hose from the regulator.
2. Remove the face piece by grasping the snout, pulling down, then up over the head.
3. Head straps should be fully extended. Face piece should be adequately cared for.

4. Unlock lever on cylinder valve and close the valve using normal pressure. This Valve closes leak-tight with little effort.
5. Remove apparatus from body and place properly in carrying case.
6. Place face piece properly in case.

CARE OF BREATHING APPARATUS AT LOCATION

1. Clean and sterilize face piece.
2. Replace cylinder with one fully charged.
 - A. Disconnect the coupling nut of high pressure hose from the cylinder valve.
 - B. Release cylinder clamp drawbolt and remove cylinder.
 - C. Replace cylinder with fully charged one, making sure regulator is positioned properly.
 - D. Before putting in case, make sure the pressure is off the regulator and hose by opening the by-pass. Make sure the main line (yellow) valve is closed.
3. Place apparatus in the case or bracket with the back plate at the bottom, folding the harness over the cylinder. Arrange high pressure hose so that it is not distorted.
4. NEVER USE ANY LUBRICANT ON ANY PART OF THIS APPARATUS. KEEP ALL PARTS FREE FROM GREASE OR OIL.

MAINTENANCE

MONTHLY CHECK OF BREATHING APPARATUS IS A MUST

1. Check pressure on air cylinder – 1900 psi minimum.
2. To make sure alarm is working, open the tank valve with the face piece connected. This will put air into the regulator. Turn tank valve off and breathe the air out of the regulator by putting the face piece on and breathing. The alarm bell should go off automatically.
3. If you have a survivor type mask, this procedure will differ.
4. Check straps on the face piece to make sure they are fully extended and not broken or starting to deteriorate with age.
5. Check and make sure the by-pass valve is working.

6. Make sure the lenses are not scratched to obscure vision.
7. Clamps and hoses should be checked to insure a tight fit.
8. Make sure there is no dust or dirt accumulation in the face piece.
9. Make sure there is no water or other material in the regulator. Care should be taken when doing this to insure proper replacement.
10. Monthly check:
 - A. Certain individuals should be assigned to a periodic check off of your breathing apparatus. This is of extreme importance.
 - B. A check off list should be kept in or around the breathing apparatus and signed by the person responsible.

GENERAL – RESPONDING TO INCIDENTS

- ▶ Upon leaving the station for the location of the call, advise LEC you are leaving the station, the number of the vehicle and the number of personnel responding. Confirm location of the incident.
- ▶ Upon arriving at the location, advise LEC of your arrival. Give LEC further information on the location if clarification is needed. Advise LEC of what other vehicles and personnel are needed.
- ▶ After the call has been handled, the Officer in Command should notify LEC that the incident is all clear and the responding vehicles and personnel are returning to the station. The Officer in Command should notify LEC when all vehicles are back and available for the next call.
- ▶ When a call is canceled before the emergency response vehicle leaves the fire department, an incident report is not filed and personnel paged out are not given credit for responding.
- ▶ All calls are to be entered into Firehouse software program. Reports are to be submitted to City Hall with two weeks of the call for billing.

GENERAL – RESPONDING TO INCIDENTS – RADIO USAGE

- ▶ Upon leaving the station for the location of the call, advise LEC you are leaving the station, the number of the vehicle and the number of personnel responding. Confirm location of the incident.
- ▶ Upon arriving at the location, advise LEC of your arrival. Give LEC further information on the location if clarification is needed. Advise LEC of what other vehicles and personnel are needed.
- ▶ After the call has been handled, the Officer in Command should notify LEC that the incident is all clear and the responding vehicles and personnel are returning to the station. The Officer in Command should notify LEC when all vehicles are back and available for the next call.

SAFETY – RESPONDING TO INCIDENTS

- ▶ Seat belts must be worn at all times in fire department vehicles.
- ▶ Position vehicle where it is accessible to reach fire, receive water supply, remove equipment, etc.
- ▶ ID tag to be left in the truck in which you respond. Can be collected and put on a master board by the person in charge, if necessary.
- ▶ All entry teams must consist of at least two fire fighters with SCBA's. There must also be a back-up team consisting of at least two fire fighters with SCBA gear.
- ▶ A Safety Officer shall be designated at every working fire.
- ▶ SCBA gear to be worn during any interior fire operation and during overhaul.
- ▶ Each firefighter is responsible for making sure their name has been written on the incident attendance sheet.

SAFETY – FIRE PERSONNEL ACCOUNTABILITY AT EMERGENCY INCIDENTS

POLICY:

The purpose of this guideline is to establish a SAFETY system to account for fire department personnel at emergency incidents. The guide covers two levels of SAFETY.

- ▶ Level I, personnel assigned to the emergency scene.
- ▶ Level II, personnel entering a possible hazardous condition or “HOT ZONE”

The term “HOT ZONE” can be defined as interior fire attack, a fire perimeter, a hazardous material area, a confined space, open water, or any life threatening situation where fire personnel may be assigned.

SCOPE:

The Officer in Command and/or the Safety Officer are responsible for the safety of all fire fighters and activities that occur. It is the responsibility of all members of the fire department to assure a system of accountability exists at any emergency incident.

COMPONENTS OF SYSTEM:

Square plastic accountability tag with ring. Tag is engraved with the name of the fire department employees.

PROCEDURE:

Fire department personnel will be provided one identification tag. All personnel will have the tag attached to the back of their fire helmet.

USE OF IDENTIFICATION TAGS:

LEVEL I – EMERGENCY INCIDENT

1. As personnel report to the emergency scene, it shall be their responsibility to deposit their ID tag with the person in charge of the unit in which they are riding.

LEVEL II – SPECIAL HAZARD OR “HOT ZONE”

During the initial stages of emergency scene operations, the first engine operator will maintain an awareness of personnel working in a “HOT ZONE.” The Incident Commander shall designate a Zone Monitor to account for personnel at the emergency scene and in the “HOT ZONE.”

1. Prior to entering a “**HOT ZONE**,” personnel will notify the Safety Officer or Incident Commander.
2. Upon leaving a “**HOT ZONE**,” personnel are responsible for notifying the Safety Officer or Incident Command.

DUTIES OF THE ZONE MONITOR/INCIDENT COMMAND:

1. Will be responsible for the accountability system.
2. Should wear vest indicating position.
3. Should maintain a personnel status board.
4. Shall retrieve tags from all on-scene apparatus, the command post, and account for all personnel at the emergency scene.
5. Shall retrieve tags from first arriving equipment and account for personnel in the “**HOT ZONE**.”
6. Shall remain available to receive and dispense “**HOT ZONE**” identification tags.

SAFETY – BLOODBORNE DISEASE

DEFINITIONS

A. BLOOD

Human blood components.

B. BLOODBORNE PATHOGENS

Micro-organisms that are present in human blood, which can cause disease in humans. These pathogens include, but are not limited to Hepatitis B (HVB) and human immunodeficiency virus (HIV).

C. SIGNIFICANT EXPOSURE

Anytime a firefighter is exposed to body fluids which fall under the definition of universal precautions, and these fluids enter a cut, open wound or break in the skin where there is a significant breakdown in epidermal barrier, enter an airway or mucous membrane.

D. OCCUPATION EXPOSURE

An average of one or more exposures per month.

E. OTHER POTENTIALLY INFECTIOUS MATERIAL

1. The following body fluids: semen, vaginal secretions, cerebrospinal fluid, synovial fluid, pericardial fluid, peritoneal fluid, amniotic fluid, saliva in dental procedures, and any bodily fluid that is contaminated with blood.
2. Any unfixed tissue (living or dead.)
3. HIV or HBV containing cell or tissue cultures, and culture medium or other solutions and blood, organs and other tissues from experimental animals infected with HIV or HBV.

F. UNIVERSAL PRECAUTIONS

All patients should be assumed to be infected with HIV and other bloodborne pathogens. Therefore, when firefighters encounter body fluids under uncontrolled, emergency circumstances in which differentiation between fluid types is difficult, if not impossible, they should treat all body fluids as potentially hazardous.

- G. MASK 3M 8560 general dust and respirator, NIOSH/MSHA approved – dusts, mists, Pel. 05 milligrams asbestos dust or equivalent.

EMPLOYEE EXPOSURE

By the nature of the firefighter role itself and the frequency of occurrence, all firefighters for the City of Spring Grove are assumed to be occupationally exposed to blood or other potentially infectious materials.

FIRST RESPONDER INCIDENT MANAGEMENT

Anytime there are body fluids which fall under the definition of universal precautions present at an incident, the MINIMUM amount of personnel to provide adequate care will be employed.

HEPITITIS B VACCINE

All firefighters for the City of Spring Grove can receive Hepatitis B vaccine at no cost to them. Contact the Training Officer for information and appointment schedule.

Entry level firefighters will be shown the video *The Silent Attack* or *The Hidden Danger*. They will then be given various handouts on Hepititis B. See attached copies. The Training Officer will review all the facts with the firefighter and answer questions. The firefighter will then be required to fill out a Hepatitis B vaccination consent form, either approving the vaccination or refusing the vaccination.

SIGNIFICANT EXPOSURES

Anytime a firefighter is exposed to body fluids which fall under the definition of universal precautions and these fluids enter a cut, open wound or break in the skin where there is a significant breakdown in the epidermal barrier or enter the airway or mucous membrane signifies a significant exposure.

The individual shall:

1. Notify immediate supervisor
2. The supervisor shall make arrangements with the Assistant Chief to take the exposed firefighter to the hospital. This shall be the same hospital as the patient.
3. At the hospital, the exposed firefighter shall fill out the significant exposure form supplied by the hospital.
4. The exposed firefighter will then consult with a physician.
5. The physician will explain all the options and procedures. It is up to the firefighter to determine the course of action to be taken.

All evaluation, procedures, vaccinations and post-exposure prophylaxis are provided without cost to the employee.

All exposures to fluid which fall under the definition of universal precautions are to be so noted on the back of the corresponding firefighter reports with the name(s) of the personnel exposed.

All records of medical treatment (vaccinations, inoculations, etc.) which are by law available to the Department, will be kept in an individual's file. These will be kept by the Assistant Chief, and will be kept for a thirty (30) year period after an individual's last duty day.

USE OF PROTECTIVE EQUIPMENT

Latex examination gloves are to be used on all rescue calls. Where any fluids, which fall under universal precautions, are likely to spray, splatter, etc., safety glasses, masks and service coats are to be worn. If ventilations are to be given in the above circumstances, bag masks and/or pocket masks are to be used.

After masks and gloves are safely removed, avoiding self contamination, they are to place in plastic bags provided in the back of the rescue vehicle. If this cannot be accomplished, they are to be placed in the ziplock bags provided on engines, marked *bio-hazard*, and properly disposed of. The safety glasses are to be placed in ziplock bags, marked *bio-hazard*, and decontaminated back at the station.

If weather permits, the service coat should be placed in a plastic bag provided on the engine, market *bio-hazard*, and decontaminated back at the station. If this procedure cannot be followed, then wear the coat back to the station and decontaminate it there, along with any area the coat may have contacted.

All contaminated materials shall be taken to the hospital emergency room for disposal.

HAND WASHING

Hands and other skin surfaces are to be washed immediately and thoroughly if contaminated with blood or other body fluids to which universal precautions apply. Hands should be washed after glove removal even if gloves appear to be intact. Washing is to be accomplished with germicide soap at the washing facilities provided at the station. When field sterilizing is warranted, use the Hibistat provided in your rescue kits. If hand washing facilities are available on scene, wash with warm water and soap, then re-wash with germicide soap upon returning to the station.

DECONTAMINATION

1. ALWAYS wear latex gloves during decontamination procedures.
2. Where any fluids which fall under the universal precautions are likely to spray, splash, splatter, etc., latex gloves, safety glasses, masks and service coats are to be worn.
 - A. EQUIPMENT
All equipment including, but not limited to, airways, bag masks, suction units, pocket masks and safety glasses, once contaminated, are to be placed in ziplock plastic bags, marked bio-hazard, and decontaminated as soon as possible after returning to the station.
 1. Decontaminate in the following manner:
Wash with UKG II solution as per instructions on container. Rinse with water, soak in ¼ cup bleach to 1 gallon water for ten minutes, rinse and air dry, place back in service.
 - B. SERVICE CLOTHING
Wash with UKG solution as per instructions on container with brush, rinse, and air dry.
 - C. TOWELS AND BLANKETS
Must be placed in plastic bags and marked bio-hazard.
3. All other inanimate objects such as engines, sinks, walls, etc., are to be washed with UKG II per container instructions, rinsed and air dried. Decontamination area will be washed after each decontamination and weekly.

HUMAN BITES

When bites occur, routine medical and surgical therapy, including tetanus assessment, will be implemented as soon as possible since such bites frequently result in infection. All bites that break the skin are to be treated as a significant exposure.

TRAINING

1. Training is to be accomplished by the Training Officer at entry level and annually, following the guidelines for firefighters in:
 - A. *Guidelines for Prevention Of Human Immunodeficiency Virus And Hepatitis B Virus to Health-care And Public Safety Workers.*

A response to P.L. 100-607. The Health Omnibus Programs Extension Act of

1988, US Department of Health and Human Service, Public Health Service, Centers for Disease Control, Atlanta, Georgia. FEB 1989

B. A Curriculum Guide For Public Safety And Emergency Response Workers

Prevention of Transmission of Human Immunodeficiency Virus and Hepatitis B Virus, Department of Health and Human Services, Public Health Service, Centers for Disease Control, Atlanta, Georgia. FEB 1989

2. DATES, TIMES and ATTENDANCE records of all training sessions will be kept by the Training Officer.

COMPLIANCE

Unannounced inspections and observation will be made periodically by the Assistant Chief and/or Training Officer to ensure compliance.

All disciplinary actions for infractions will be dealt with on a case-by-case basis, using the guidelines set forth in the Spring Grove Fire Department Rules and Regulations.

PRECAUTIONS TO PREVENT TRANSMISSION OF HIV

UNIVERSAL PRECAUTIONS

1. Since medical history and examinations cannot reliably identify all patients infected with HIV and other bloodborne pathogens, blood and body fluid precaution should be consistently used for ALL patients. This approach, previously recommended by CDC (3, 4) and referred to as *universal blood and body fluid precautions* or *universal precautions*, should be used in the care of ALL patients, especially including those in emergency care settings in which the risk of blood exposure is increased and the infection status of the patient is usually unknown.
 - A. All health care workers should routinely use appropriate barrier precaution to prevent skin and mucous membrane exposure when contact with blood or other body fluids of any patient is anticipated. Gloves should be worn for touching blood and body fluids, mucous membranes or non-intact skin of all patients, for handling items or surfaces soiled with blood or body fluids, and for performing venipuncture and other vascular access procedures. Gloves should be changed after contact with each patient. Masks and protective eyewear or face shields should be worn during procedures that are likely to generate droplets of blood or other body fluids to prevent exposure of mucous membranes of the mouth, nose and eyes. Gowns and aprons should be worn during procedures that are likely to generate splashes of blood or other body fluids.

- B. Hands and other skin surfaces should be washed immediately and thoroughly if contaminated with blood or other body fluids. Hands should be washed immediately after gloves are removed.
- C. All health care workers should take precautions to prevent injuries caused by needles, scalpels, and other sharp instruments or devices during procedures; when cleaning used instruments; during disposal of used needles; and when handling sharp instruments after procedures. To prevent needle-stick injuries, needles should not be recapped, purposely bent or broken by hand, removed from disposable syringes, or otherwise manipulated by hand. After they are used, disposable syringes and needles, scalpel blades, and other sharp items should be placed in puncture-resistant containers for disposal; the puncture-resistant containers should be located as close as practical to the use area.
- D. Although saliva has not been implicated in HIV transmission, to minimize the need for emergency mouth-to-mouth resuscitation, mouthpieces, resuscitation bags, or other ventilation devices should be available for use in areas in which the need for resuscitation is predictable.
- E. Health care workers who have exudative lesions or weeping dermatitis should refrain from all direct patient care and from handling patient care equipment until the condition is resolved.
- F. Pregnant health care workers are not known to be a greater risk of contracting HIV infection than health care workers who are not pregnant; however, if a health care worker develops HIV infection during pregnancy the infant is at risk of infection resulting from prenatal transmission. Because of this risk, pregnant health care workers should be especially familiar with and strictly adhere to precautions to minimize the risk of HIV transmission.

2. Implementation of universal blood and body fluid precautions for ALL patients eliminates the need for use of the isolation category of Blood and Bodily Fluids Precautions previously recommended by CDC (7) for patients known or suspected to be infected with bloodborne pathogens. Isolation precautions (e.g., enteric, "AFB" (7) should be used as necessary if associated conditions, such as infectious diarrhea or tuberculosis, are diagnosed or suspected.

**RECEIPT AND ACKNOWLEDGMENT FORM
SPRING GROVE FIRE DEPARTMENT
HANDBOOK
AND
OPERATIONS GUIDE**

This Handbook provides important information regarding the rules and regulations of the Spring Grove Fire Department and the department's Operations Guide. I understand that I may consult my supervisor or the City Administrator regarding any information about which I have questions or concerns.

I hereby acknowledge that I have received a copy of the Handbook and the Operations Guide and understand that it is my responsibility to read them and to comply with all policies included herein.

EMPLOYEE'S SIGNATURE

DATE

EMPLOYEE'S NAME / TYPED OR PRINTED

