Objectives

- Identify the inspection procedures to be used when wearing and working with SCBA
- Identify safety procedures to be used when wearing and working with SCBA
- Identify the emergency procedures to be used in the event of SCBA failure
- Identify the methods of donning and doffing an SCBA while wearing PPE
- Identify the techniques for exiting through a restricted opening
SCBA Inspection Procedures

• NFPA 1404 – Standard for Fire Service Respiratory Protection Training
• NFPA 1500 – Standard on Fire Department Occupational Safety and Health Program

Requires all SCBA to be inspected daily, monthly and annually
SCBA Inspection Procedures

• Daily inspection procedures
  – Backpack and harness straps in good condition and fully extended
  – Check for full cylinder (minimum 90%)
  – Check all gauges (should be within 100 PSI)
  – Activate PASS device
  – Check face piece
  – Connect regulator to face piece, take 1-2 breaths
  – Close cylinder valve and open by-pass to bleed air
  – Check that low pressure alarm activates at proper pressure
  – Close by-pass valve
SCBA Inspection Procedures

• Monthly inspection procedures, in addition to daily inspections
  – Inspect mounting bracket for damage or wear
    check hydrostatic test date on cylinder
  – Inspect straps for wear, burns and cuts
  – Check all buckles and fasteners
  – Examine back plate for cracks or rust
  – Check all connection points
  – Check all hoses
  – Open cylinder and compare gauge readings
  – Complete all necessary paper work
SCBA Inspection Procedures

• Annual inspection should be performed by a certified manufacturer’s representative
Safety Procedures to be Used When Wearing and Working with SCBA

• General safety conditions
  – Use SCBA in accordance with manufacturer’s recommendations
  – Know the SCBA protection limits and safety features
  – Know air supply duration
  – Calculate a point of no return
  – Ensure proper face piece fit
  – Follow basic safety guidelines
Safety Procedures to be Used When Wearing and Working with SCBA

• General safety conditions
  – Know your own physical limitations
    • Before entering hazardous atmosphere, don and check unit for operation
    • Always work in pairs
    • Stay in contact with a wall, hose line, lifeline or partner
    • Work to control breathing
    • Protect the SCBA from damage
    • Inspect and maintain SCBA in accordance with department policy
Safety Procedures to be Used When Wearing and Working with SCBA

• Monitoring firefighter entering hazardous situations
  – Entry control
  – PASS device for each individual entering the area
  – Accountability system
    • Entry time
    • Personnel
    • Location maintained
  – Guideline / tag line system
    • Series of lines to which others entering are attached
    • Individual remains outside to monitor the line
Safety Procedures to be Used When Wearing and Working with SCBA

• Maintenance and storage
  – Clean and sanitize
  – Follow department SOPs
  – Use cleaners recommended by the manufacturer
  – Inspect and test for defects
    • Inspect before placing in service
    • Have air quality tested quarterly
    • Ensure all inspection are performed by qualified personnel
    • Keep accurate records
    • Remove defective units from service
Safety Procedures to be Used When Wearing and Working with SCBA

• Maintenance and storage
  – Repair and conditioning
    • Follow manufacturer’s procedures and recommendations
    • Allow only personnel certified by the manufacturer to repair units
    • Use exact replacement parts
  – Storage
    • Follow department procedures
    • Follow manufacturer’s instructions for storage
Emergency Procedures to be Used in the Event of SCBA Failure

• Emergency by-pass/purge valve
  – Call MAYDAY
  – Use
    • Turn off mainline valve
    • Open by-pass to provide flow into facepiece
    • Close by-pass after each breath
    • Advise partner and exit to non-toxic atmosphere
    • Remove unit from service and have it checked
Emergency Procedures to be Used in the Event of SCBA Failure

• Conservation of air
  – Always practice controlled breathing
  – When supply is low, practice skip breathing
    • Emergency breathing technique to extend remaining air supply
    • Inhale, hold your breath as long as it would take to exhale, then inhale once again before exhaling
    • Take normal breath to keep carbon dioxide in lungs at proper balance
  • Notify partner, leave area
Emergency Procedures to be Used in the Event of SCBA Failure

• Rapid Intervention Team (RIT)
  – Needed to locate and rescue firefighters in distress
  – NFPA 1500 and OSHA 29 CFR 1910.134
    • Require RIT whenever firefighters are in hazardous zone inside burning building
    • Composed of at least 2 firefighters suitably equipped and trained to enter hazard zone
    • Universal air connection of SCBA
Methods of Donning SCBA

• Over the head
  – Open cylinder valve
  – Hold back plate with both hands
  – Lift SCBA over your head
  – Slide SCBA down your back
  – Tighten waist and shoulder straps
  – Don face piece and check for seal
  – Position protective hood / don helmet
  – Connect regulator to the facepiece
Methods of Donning SCBA

• Coat Method
  – Open cylinder valve
  – Place dominant hand on opposite shoulder strap
  – Lift SCBA and swing it over your dominant shoulder
  – Slide other hand through corresponding shoulder strap
  – Tighten waist and shoulder straps
  – Don face piece and check for seal
  – Position protective hood / don helmet
  – Connect regulator to the facepiece
Methods of Donning SCBA

• Seat Mounted SCBA
  – Sit in seat and place arms through shoulder straps
  – When apparatus stops, release SCBA from mounting bracket
  – Tighten waist and shoulder straps
  – Open main cylinder valve
  – Don face piece and check for seal
  – Position protective hood / don helmet
  – Connect regulator to the facepiece
Methods of Donning SCBA

• Facepiece
  – Grasp the harness with the thumbs through the straps from the inside, and spread the straps
  – Rest your chin in the chin pocket at the bottom of the mask
  – Fit the face piece to your face, bringing the straps or webbing over your head
  – Pull the lower harness straps evenly and simultaneously to the rear to tighten them
  – Pull the temple harness straps evenly and simultaneously to the rear to tighten them
Methods of Donning SCBA

• Facepiece (cont.)
  – Check for proper seal.
    • Check the face piece seal by sealing the end of the low-pressure hose with your bare hand, and inhaling slowly. (Note: Inhaling very quickly will temporarily seal any leak and will give a false sense of a proper seal)
    • Check the exhalation valve by exhaling while sealing the end of the low-pressure hose with the palm of your hand
  – Pull the protective hood up so that it covers all bare skin
  – Don your helmet and tighten the chin strap
  – Install the regulator on your face piece or attach the low-pressure air supply hose to the regulator
Method of Doffing SCBA

- Remove the regulator from the face piece or disconnect the low-pressure air supply hose from the regulator
- Shut off the air supply valve
- Remove your helmet and pull your protective hood down around your neck
- Loosen the straps on your face piece
- Remove your face piece
- Release your waist strap
- Loosen the shoulder straps and remove the SCBA
- Shut off the air-cylinder valve
- Bleed the air pressure from the regulator by opening the purge valve. If you have an integrated PASS device, turn it off
- Place the SCBA in a safe location
Techniques for Exiting Through a Restricted Opening

• Shifting
  – Remove or loosen only those parts of the SCBA unit necessary to negotiate the restricted opening
  – Never remove the facepiece to reduce your profile
  – Loosen straps and rotate the SCBA under the arm along the rib cage
Techniques for Exiting Through a Restricted Opening

• Dumping
  – As a last resort, remove the harness assembly and hold SCBA unit in front of you
  – Always maintain contact with SCBA
  – Hold onto shoulder straps and regulator assembly
  – Do not move unit away or allow facepiece to be pulled away
  – Once through passage, re-don the SCBA
Q & A