Doffing the SCBA must be performed only when the user is in a safe environment that does not require SCBA protection. Failure to comply may result in serious injury or death from inhaling toxic substances.

a. Perform Go-Off-Air procedures IAW paragraph 2.3.1.4.
b. Fully close cylinder valve by rotating handwheel toward user.
c. Fully open purge valve by rotating CCW to bleed residual air from SCBA.
d. When airflow stops, close purge valve by rotating CW.

NOTE

When removing facepiece, the user may find it more comfortable to first relieve tension on the temple straps by loosening buckles.

e. Lift each buckle on temple and neck straps and remove facepiece from head.
f. Depress waist strap spring-action buckles and fully extend waist adjustment straps.
g. Unbuckle quick-release buckle.
h. Depress shoulder strap spring-action buckle and fully extend side straps.

CAUTION

Ensure positive control is maintained during removal of the backframe and harness assembly to prevent equipment damage.
i. Maintain firm grip on shoulder straps while removing SCBA.

2.3.2 Air Replenishment. The SCBA may be recharged with 4,500 psig Grade D air by two methods: quick-charge and cylinder assembly removal and replacement.

2.3.2.1 Quick-Charge. Quick-charge of the cylinder assembly may be accomplished while wearing or using the SCBA.

a. Go to approved charging station.

WARNING

User shall ensure charging station operator inspects the SCBA prior to charging. Failure to do so can cause equipment damage/failure, resulting in serious personal injury or death.

NOTE

Cylinder pressure will decrease after charging due to cooling effects. Any cylinder with a starting pressure of less than 3,000 psig prior to charging will require another charging evolution at least 3 minutes after initial recharge. This process will help ensure cylinder pressure will remain above 4,000 psig upon cooling assuming cylinders are charged to end pressure of 4,500 ± 50 psig.

b. Monitor remote pressure indicator for indication of pressure increase during quick-charge of cylinder assembly.
c. After quick-charge has been completed, ensure the following have been performed;
   (1) Dust cap is reattached to RIC UAC fitting (Configurations 4 and 5)
   (2) Ensure quick-charge coupling is secured to waist adjustment strap (Configurations 1-3).
2.3.2.2 Cylinder Assembly Removal and Replacement. Cylinder assembly removal and replacement procedure can be performed with assistance while the SCBA is being worn, or alone with the SCBA removed from wearer’s back. The Cylinder Assembly Removal and Replacement Checklist (Table A-5) should be completed whenever the following procedures are performed.

a. Removal.

**WARNING**

To prevent serious personal injury or death, cylinder assembly is to be removed only when the user is in a safe environment that does not require SCBA protection.

(1) Fully close cylinder valve (15, Figure 2-27) by rotating handwheel (13) toward user if SCBA is donned, or CW if SCBA has been doffed.
(2) Fully open purge valve (22, Figure 2-28) on mask-mounted regulator by rotating CCW to bleed residual air from SCBA.
Figure 2-28. Remote Pressure Indicator, Bell Alarm, and Mask Mounted Regulator.

(3) When airflow stops, close purge valve (22, Figure 2-28) by rotating CW.
(4) Check remote pressure indicator (16) for indication of no air pressure.
Leakage of high-pressure air could cause equipment damage and serious personal injury or death.

(5) Rotate hand-coupling (23, Figure 2-29) CCW to remove high-pressure hose assembly or RIC UAC assembly from cylinder valve (15, Figure 2-27).

![Figure 2-29. Hand Coupling on High Pressure Hose Assembly and RIC UAC.](image)

(6) Unsnap and pull up on over-center latch mechanism (3, Figure 2-27) to release cylinder band clamp (1).

**WARNING**

To prevent serious personal injury or death, do not grab handwheel instead of cylinder valve to remove from backframe and harness assembly.

(7) With one hand, grab cylinder valve (15, Figure 2-27) and press on locking tab (9) with the other hand.

(8) Push up on cylinder assembly approximately 1 inch until hanger plate (11) disengages from backframe hook (10) and then pull cylinder assembly down and out of backframe and harness assembly.

b. **Replacement.**

**WARNING**

Never use a cylinder assembly having a damaged cylinder valve or a cylinder valve with damaged threads. Leakage may occur, which could cause loss of breathing air or sudden release of high-pressure air, resulting in serious personal injury or death.

(1) Conduct visual inspection of cylinder assembly IAW Appendix C.
(2) Ensure dual-reading pressure indicator (14, Figure 2-27) indicates a minimum of 4,000 psig.

(3) Position cylinder band clamp (1) on bail for different-sized cylinders as follows:
   (a) Top position for 45-minute fiberglass cylinder.
   (b) Middle position for 45-minute carbon-fiber cylinder. If middle position is not present, proceed to Appendix E for instructions on upgrading bail.
   (c) Inner position for either type 30-minute cylinder. See Figure 2-30.

(4) Guide dome end of cylinder assembly upward through cylinder band clamp (1, Figure 2-27).

(5) Turn cylinder assembly so hanger plate (11) points toward backframe and aligns with center of backframe hook (10) in bottom of backframe.

(6) Push cylinder assembly down until backframe hook (10) engages with hanger plate (11).

   **NOTE**
   Do not force over-center latch mechanism. Adjust cylinder band clamp for a snug fit by turning cylinder adjustment handwheel.

(7) If necessary, cylinder band clamp (1) may be adjusted to compensate for small variations in cylinder size by rotating cylinder adjustment handwheel (2) CW to compensate for smaller cylinders and CCW for larger cylinders after cylinder band clamp is unsnapped and over-center latch mechanism (3) is disengaged.

(8) Push down on over-center latch mechanism (3) until locked firmly in place and snap.

   **NOTE**
   Slide pressure reducer within mounting plate to assist in aligning the hand coupling to the cylinder valve.

(9) Connect, but do not tighten, hand coupling (23, Figure 2-29) to cylinder valve (15, Figure 2-27).
Do not use a wrench to tighten hand coupling to cylinder valve. Overtightening may damage hand coupling and cylinder valve.

(10) Hand-tighten coupling (23) by turning CW until seated.

2.3.3 Emergency Operation. Emergency operation procedures shall be followed immediately should the SCBA not operate normally. Table A-6 contains the emergency operations procedures checklist that should be completed each time emergency operations are necessary.

WARNING

If any situation listed in steps a through d below occur, leave hazardous area at once to avoid inhaling toxic substances which may lead to serious personal injury or death.

a. Should the Vibralert®, bell alarm, or HUD activate during use, even if air supply has not been depleted to approximately 1,125 psig (25% of full capacity), leave hazardous area at once.

b. Should air supply be partially cut off during use, fully open purge valve by rotating CCW (pointer on knob downward), ensure cylinder valve is fully opened (turned fully CCW) and leave hazardous area at once.

c. Should air supply begin to flow freely into facepiece during use, leave hazardous area at once.

d. Should a total and irreversible loss of SCBA protection or an airflow blockage occur, leave hazardous area at once.

e. Once in a safe environment not requiring SCBA protection, bleed system, doff SCBA IAW paragraph 2.3.1.5, and tag for repair.

2.4 POST-OPERATING PROCEDURES.

a. Clean SCBA IAW appropriate MRC.

b. Inspect SCBA IAW appropriate MRC.

2.5 SCBA STOWAGE INSTRUCTIONS.

a. Insert SCBA into walkaway bracket clips, ensuring the stowage strap is not trapped within the bracket clips or by the SCBA cylinder. SCBA cylinder valve should rest of hanger plate of stowage bracket.

b. Extend both side straps to fully extended positions as shown in Figure 2-31 and ensure mask-mounted regulator has been stowed in its holder on waist strap.
c. Buckle waist belt and take up all slack by tightening adjustments on both sides of waist belt, as shown in Figure 2-33.
Figure 2-32. Waist Belt Buckled and Slack Removed From Waist Belt.

NOTE

SCBA stowed without voice amplifier attached to the facepiece assembly shall be considered to be in a degraded condition.

d. Place facepiece assembly under right side-strap as shown in Figure 2-33. The facepiece assembly shall be placed below the backplate with the rubber gasket against the wire frame (lens facing out). Tighten side-strap adjustment strap to hold facepiece assembly in place.
e. Take waist belt with mask-mounted regulator in its holder and raise waist straps and pads up under left side-strap next to facepiece as shown in Figure 2-34. Tighten left shoulder strap to hold regulator in place.

f. Making sure shoulder straps stay secure over the facepiece and mask-mounted regulator, fold any loose straps up into the center of the apparatus. While keeping one hand (or forearm) in place to hold this, reach behind SCBA and grab the stowage strap from both sides. Connect stowage strap around SCBA and tighten. The stowage strap should be positioned below pressure reducer as shown in Figure 2-36 and tighten.
g. Ensure facepiece and mask-mounted regulator are secured behind the side straps of the backpack. Place the extended portions of the side and waist straps that may be hanging below the SCBA under the stowage strap.

h. The SCBA is now properly and securely stowed with the mask-mounted regulator. See Figure 2-36.