Notice of Bid

The City of Paris KY is accepting sealed proposals from qualified vendors for Self Contained Breathing Appartus. Sealed proposals shall be submitted no later than 10:00 AM on Monday December 1, 2025. Sealed proposals will be opened at this time at 525 High Street Paris, KY 40361. For a copy of the specifications or RFP please contact josh hurst at firechief@paris.ky.gov. Sealed proposals shall be submitted by hand delivery, overnight courier, or postal service only. The City of Paris reserves the right to reject any or all proposals, waive informalities, and award the contract in the best interest of the City.

Please submit proposals clearly labeled “SCBA – Fire - Due 12/1/25” to:

City of Paris, Purchasing Manager
525 High Street
Paris KY 40361

Chief Josh Hurst
313 High Street
Paris, Kentucky
40361

The City of Paris
Division of Fire & EMS

Phone (859) 987-2120
Fax (859) 987-2133
TDD (859) 987-2100

Bid Specification

3M Scott Air-Pak XD
Self-Contained Breathing Apparatus (SCBA)

Self-Contained Breathing Apparatus Requirements

• The SCBA shall consist of the following major sub-assemblies: (1) full facepiece assembly; (2) a removable, positive pressure, mask-mounted regulator with air-saver switch; (3) an automatic dual path redundant pressure reducer; (4) end-of-service time indicators; (5) a harness and backframe assembly for supporting the equipment on the body of the wearer; (6) a shoulder strap mounted, remote gauge indicating cylinder pressure; (7) a rapid intervention crew/universal air connection (RIC/UAC); (8) a personal alert safety system (PASS); and (9) cylinder and valve assembly for storing breathing air under pressure.

Regulatory Approvals

• The SCBA shall be approved to NIOSH 42 CFR, Part 84 as an open circuit, pressure-demand self-contained breathing apparatus.

• The SCBA shall be certified to NFPA 1970, Standard on Protective Ensembles for Structural and Proximity Firefighting, Work Apparel, Open-Circuit Self-Contained Breathing Apparatus (SCBA) for Emergency Services, and Personal Alert Safety Systems (PASS), 2025 Edition.

• All components shall be approved for Intrinsic Safety under UL 913 Class I, Groups C and D, Class II, Groups E, F and G, Hazardous locations.
• The SCBA shall maintain all NIOSH standards with any of the types of cylinders listed as provided by the SCBA manufacturer

Required Components

Facepiece Assembly (Model: AV-3000 HT)
• The facepiece shall have a large diameter inlet that enables both unrestricted breathing and voice communications, while also allowing for rehydration (oral) without having to remove the facepiece while mask-mounted regulator is doffed.
• The facepiece shall enable connection of the mask-mounted regulator by way of a quarter (1/4) turn rotation.
• The facepiece shall interface with the mask-mounted regulator, without the use of tools, with an audible click to assure the user that the regulator is properly seated.
• The full facepiece assembly shall be available in three sizes, marked "S" for small, "M" for medium and "L" for large.
• The facepiece sizes shall be color-coded for ease of identification.
• The facepiece nose cup assembly shall be available in three sizes, marked "S" for small, "M" for medium and "L" for large.
• The facepiece assembly, including head harness, shall not be made with natural rubber latex.
• The facepiece shall include a face seal that is secured to the lens by a U-shaped bezel using no more than two fasteners.
• The facepiece shall contain inhalation valves that are contrasting in color and readily visible to enable quick visual inspection.
• Multi-directional voicemitters shall be recessed on both sides of the facepiece and ducted directly to an integral silicone nose cup to enhance voice transmission around the user.
• The facepiece shall meet the requirements of NFPA 1970, Standard on Protective Ensembles for Structural and Proximity Firefighting, Work Apparel, Open-Circuit Self-Contained Breathing Apparatus (SCBA) for

Emergency Services, and Personal Alert Safety Systems (PASS), 2025 Edition.
• The facepiece assembly shall be modular in design to enable ease of upgrading and serviceability.
• The facepiece shall be capable of submersion for cleaning and disinfecting.
• The facepiece shall be able to incorporate multiple electronic communications options (amplification, radio interface, radio direct interface) without affecting NIOSH approvals and/or NFPA certification, where applicable.
• The facepiece shall enable the installation of communications bracket on either the right or left side.
• The facepiece shall be approved for use with multiple respiratory applications (e.g., airline respirator or negative pressure respirator with filters/cartridges) to enable the same user to switch from one application to another without the use of tools and without doffing the facepiece.

Facepiece Lens
• The lens is a component of the facepiece assembly and shall be a single, replaceable, modified-cone configuration, constructed of a high-temperature and radiant-heat-resistant, non-shatter type polycarbonate material.
• The lens shall be coated to resist abrasion and meet the requirements of the NFPA 1970, Standard on Protective Ensembles for Structural and Proximity Firefighting, Work Apparel, Open-Circuit Self-Contained Breathing Apparatus (SCBA) for Emergency Services, and Personal Alert Safety Systems (PASS), 2025 Edition standard for lens abrasion.
• The lens shall have an internal anti-fog coating to reduce fogging of the lens.
• The lens shall meet the requirements of the NFPA 1970, Standard on Protective Ensembles for Structural and Proximity Firefighting, Work Apparel, Open-Circuit Self-Contained Breathing Apparatus (SCBA) for Emergency Services, and Personal Alert Safety Systems (PASS), 2025 Edition standard for radiant heat and elevated temperature heat and flame resistance tests.

• The facepiece shall meet the penetration and impact requirements of ANSI Z87.

Head Harness
• The head harness is a component of the facepiece assembly and shall have five points of suspension connection, four of which shall be adjustable, made in the fashion of a net hood to minimize interference between securing of the facepiece and the wearing of head protection.
• The head harness shall be available in an optional, adjustable five-strap configuration.
• The head harness shall be constructed of a para-aramid material for fire, first responder and CBRN applications.
• The head harness shall include either a positioning strap or an integrated handle to assist with donning of the facepiece.
• Two elastomeric straps, attached to the face seal in four locations, shall provide adjustment for proper seal to the face.

Regulator (Model: E-Z Flo+)
• The mask-mounted regulator shall maintain positive pressure during flows of up to 500 standard liters per minute.
• The mask-mounted regulator shall be available in a continuous hose configuration, with an optional inline quick disconnect coupling.
• The optional quick disconnect coupling shall be easily connected and disconnected by trained individuals with a gloved hand and in limited visibility conditions.
• The optional quick disconnect coupling shall be guarded against inadvertent disconnection during use of the equipment.
• The low-pressure hose shall be equipped with a swivel attachment at the mask-mounted regulator.
• The mask-mounted regulator shall connect to the facepiece by way of a quarter (1/4) turn rotation.
• A latch mechanism shall lock the mask-mounted regulator in place to prevent inadvertent rotation.
• An audible click shall provide notification that the mask-mounted regulator is securely attached to the facepiece.

• The mask-mounted regulator shall be equipped with a gasket to provide a seal against the mating surface of the facepiece.
• The mask-mounted regulator shall contain an air-saver switch to prevent airflow when disconnected from the facepiece.
• The mask-mounted regulator shall reactivate and supply air only in the positive pressure mode when the wearer affects a face seal and inhales.
• The mask-mounted regulator shall have a demand valve to deliver air to the user, activated by a diaphragm responsive to respiration.
• The diaphragm shall include an integrated exhalation valve.
• The mask-mounted regulator shall include a purge valve for use as an emergency bypass.
• The mask-mounted regulator shall be designed to direct the incoming air through a spray bar and over the inner surface of the facepiece lens for defogging purposes.
• The mask-mounted regulator shall incorporate a Heads-Up Display (HUD) to provide visual alerts to the SCBA user of air status and PASS alarm conditions.
• The mask-mounted regulator shall incorporate a latch mechanism to enable removal from the facepiece.
• The mask-mounted regulator shall require pulling back of the thumb latch and a quarter (1/4) turn rotation for removal from the facepiece.

Pressure Reducer with CGA Cylinder Connection
• The pressure reducer shall be mounted on the backframe and be coupled to the cylinder valve through an internally-armored, high-pressure hose with a hand coupling for engagement and sealing within the cylinder valve outlet.
• In lieu of a manual by-pass, the pressure reducer shall include a back-up pressure reducer connected in parallel with the primary pressure reducer and an automatic transfer valve for redundant control.
• The back-up pressure reducer shall also be the means of activating the low-pressure alarm devices in the mask-mounted regulator.
• The low-pressure alarm warning shall denote a switch from the primary pressure reducer to the back-up pressure reducer whether from a

malfunction of the primary pressure reducer or from low cylinder supply pressure.
• A press-to-test valve shall be included to allow functional testing of the back-up pressure reducer.
• The pressure reducer shall have incorporated a resettable over-pressurization relief valve which shall prevent the attached low-pressure hose and mask-mounted regulator from being subjected to high pressure.
• The pressure reducer shall incorporate a removable cover to allow the SCBA to be machine washed in an approved SCBA washer.

End-of-Service-Time Indicator (EOSTI)
• The SCBA shall have two end-of-service-time indicators (EOSTI). One shall be both a tactile and audible alarm, and one shall be a Heads-Up Display (HUD).
• The primary EOSTI shall be the integral low-pressure alarm device that shall combine an audible alarm with simultaneous vibration of the facepiece.
• The primary EOSTI shall be located in the positive pressure mask-mounted regulator.
• This alarm device shall indicate either low cylinder pressure (35% +0/-2%) or a malfunction of the primary pressure reducer.
• The HUD shall serve as the secondary EOSTI.
• The HUD shall be powered by the SCBA's single power supply.
• The HUD shall be mounted in the user's field of vision on the positive pressure mask-mounted regulator.
• The HUD shall display cylinder pressure in increments of 100%, 75%, 50% and 35% (+0/- 2%).
• The display shall not have a numerical representation of cylinder pressure.
• At greater than three quarters cylinder pressure, two green Light Emitting Diodes (LED) shall be illuminated.
• Between three quarters and one-half cylinder pressure, one green LED shall be illuminated.

• Between one-half and 35% (+0/- 2%) cylinder pressure, one "yellow" LED shall be illuminated and flash at a rate not less than one (1x) time per second.
• At 35% (+0/- 2%) or less cylinder pressure, one "red" LED shall be illuminated and flash at a rate to exceed ten times (10x) per second.
• The HUD shall have a low battery indication that is distinct and distinguishable from the cylinder pressure indications.

Backframe and Harness Assembly
• A lightweight wireform backframe shall be used to carry the cylinder and valve assembly and the pressure-reducing regulator assembly.
• The wireform backframe shall provide a low front-to-back SCBA profile to help minimize snag points in tight spaces.
• The backframe shall include an over-the-center, adjustable tri-slide fixture, a para-aramid strap and a double-locking latch assembly to secure 45-minute cylinder.
• The harness assembly shall include a waist pad and shoulder pads, available in a padded or unpadded configuration.
• The padded harness assembly shall be constructed of an outer shell material and incorporating a closed-cell foam design to help minimize water and contaminant absorption.
• The harness assembly shall incorporate either parachute-type, quick release buckles or spring clips to help secure the webbing.
• The padded harness assembly shall consist of a one-size, black, para-aramid strap with two red stripes along the outer edges and a reflective stripe in the center for enhanced visibility.
• The harness assembly shall include a seat-belt type waist belt attachment.
• The harness assembly shall include box-stitched construction with no screws or bolts.
• The harness assembly shall be removable from the backframe without the use of tools.
• The harness assembly shall be machine washable to help with contaminant exposure reduction.
• The harness assembly shall accommodate a waist belt extension.

• The waist pad shall be attached to the backframe such that movement by the wearer provides natural articulation. Articulation shall be accomplished without the use of mechanical devices.
• The waist pad and belt shall freely wrap around and conform to the user's hips.
• The shoulder harness shall be fitted with a Drag Rescue Loop (DRL) capable of being deployed in an emergency to drag a downed wearer to safety.
• The DRL shall be sewn into the shoulder harness assembly and shall provide a horizontal pull strength of 1000 lbs.
• The DRL shall be stored in a manner to prevent accidental snag but maintain accessibility with gloved hands.
• The shoulder harness shall include reflective material to enhance the visibility of the user in low-light conditions.
• The padded shoulder harness shall accommodate two distinct positions for a chest strap attachment.

Rapid Intervention Crew / Universal Air Connection (RIC/UAC)
• The SCBA shall incorporate a RIC/UAC fitting to be compliant with the NFPA 1970, Standard on Protective Ensembles for Structural and Proximity Firefighting, Work Apparel, Open-Circuit Self-Contained Breathing Apparatus (SCBA) for Emergency Services, and Personal Alert Safety Systems (PASS), 2025 Edition.
• The RIC/UAC shall be an integral part of the high pressure hose and coupling assembly.
• The RIC/UAC inlet connection shall be within 4" (4-inches) of the cylinder valve.
• The self-resetting relief valve shall be color-coded to identify pressure rating of the SCBA.
• The RIC/UAC shall have a check valve to prevent the loss of air when the high-pressure air source has been disconnected.

Cylinder and Valve Assembly
• The cylinder valve shall be constructed of forged aluminum.