



Dear valued customer,

3M™ Scott™ Fire & Safety has recently received requests for clarification from some fire services about cold weather self-contained breathing apparatus (SCBA) operation. Some of these questions are related to the potential for ice formation in cold weather, and what action to take to ensure optimal SCBA performance. It is important to understand that ice formation in a self-contained breathing apparatus is a condition of physics and climatic conditions and is not indicative of a product defect or malfunction. Ice formation, and the possible free flow of breathable air to the user, can be the result of humidity introduced by the wearer coming into contact with cold air and may impede normal functionality of SCBA components. This condition can occur with all brands and models of SCBA and is addressed in the cautionary statements of each product's respective operation manuals. Ice formation can impact mask-mounted regulators as well as facepieces with exhalation valves.

At present, there is no technological or mechanical solution that prevents ice formation in these cases, however, there are guidelines that can help to minimize this natural phenomenon's impact on operations:

- Proper compressor maintenance to ensure clean dry air is used in cylinder recharging as documented in the National Fire Protection Association (NFPA) 1989 Standard on Breathing Air Quality for Emergency Services Respiratory Protection, 2019 edition and Canadian Standard Association (CSA) Z180.1-13, Compressed Breathing Air and Systems
- Proper mask-mounted regulator cleaning and disinfecting procedures, including drying, to minimize the presence of moisture when stored
- Strategic rehab and cylinder change procedures that protect the mask-mounted regulator from prolonged exposure to extreme cold temperatures when wet
- Consideration of the quick disconnect (QD) regulator option when specifying and purchasing SCBA, which allows for rapid on-scene regulator replacement in the event of ice formation or other damage

3M Scott Air-Pak™ SCBA products are tested, certified and approved by 3rd party independent approval agencies like the National Institute for Occupational Safety and Health (NIOSH) as well as the NFPA that include cold weather performance testing. These SCBA are designed for, and used by, first responders in extreme conditions and harsh climates around the world. The Air-Pak SCBA mask-mounted regulator can be easily cleaned and disinfected as required by CSA Z94.4, and as inferred by other applicable legislation.

3M Scott Fire & Safety remains committed to firefighter and worker safety and stands behind its products. Please contact your local 3M Scott Fire & Safety SCBA & Fire Service Specialist, or the nearest 3M Scott Authorized Service Centre for more information.

Thank you for your interest in 3M Scott Fire & Safety, and for your business.

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