



June 4, 2018

1100 Cranberry Woods Drive  
Cranberry Township, PA 16066

724.776.7700

## MAE Cylinder Life Extension

To our valued customers and channel partners,

On April 21, 2017, the United States Department of Transportation's Pipeline and Hazardous Materials Safety Administration (PHMSA) announced that it has issued a special permit, DOT-SP 16320, authorizing "the extension of the 15 year service of certain carbon fiber reinforced aluminum-lined cylinders (DOT-CFFC) that are used in self-contained breathing apparatuses by fire departments and first responders." The announcement continues on to say that the service life of these cylinders can be extended in 5 year increments, up to an additional 15 years (for a total of 30 years of service life), through the use of Modal Acoustic Emissions (MAE) testing.

MAE is a method used to inspect high and low pressure vessels through the use of ultrasonic wave modes produced by acoustical emission in plates, rods, and shells. MAE has been recently introduced as a method to analyze the structural integrity of SCBA carbon wrapped cylinders.

Luxfer Gas Cylinders, a global supplier of breathing air cylinders to MSA as well as other SCBA manufacturers, has issued a formal statement regarding the life extension of DOT-CFFC carbon wrapped cylinders by means of MAE testing. Within this letter, Luxfer states that the special permit issued to Digital Wave Corporation to conduct the MAE testing requires the original special permit marking of each cylinder that is requalified to be covered and replaced with special permit "DOT-SP-16320". In addition, Luxfer states they have conducted a significant amount of testing to ensure that Luxfer cylinders are able to withstand the demands of firefighting for a 15 year period and that Luxfer cannot accept responsibility or liability for use of Luxfer-manufactured cylinders beyond the 15-year service life for which they were designed.



Furthermore, NIOSH approvals are only granted for an entire respiratory system (i.e. SCBA & cylinder together, in addition to other system components). At this time, MSA has not made any submittals to NIOSH nor NFPA to have these cylinders approved for use with any MSA SCBA. As such, MSA cannot accept responsibility or liability for use of cylinders beyond their 15 year life in MSA SCBAs.

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Customer satisfaction remains the primary goal for all of us at MSA. Should there be any additional questions or concerns regarding MSA's stance on MAE cylinder life extension, please contact MSA Customer Service at 1-877-672-3473 or any of your local First Responder Sales Managers.

Respectfully,

A handwritten signature in black ink, appearing to read "S. Meigs". The signature is stylized and cursive.

Sean Meigs  
Fire Service Marketing Manager - SCBA