

the minimum safety level. The Test Plan mandated pressure testing of each cylinder, and sample ambient cycle testing and environmental cycle testing of cylinders from each of the manufacturing lots represented. Cylinders subjected to the cycle tests were then put through the hydrostatic pressure test to burst.

Each cylinder was also subjected to a pneumatic pressure test at test pressure (1.5 x service pressure), followed by a pneumatic leak pressure test conducted at service pressure in a water bath. During the leak pressure test, leaks can be detected by bubbles leaving the cylinder. The leak pressure test ensures that the cylinder will not leak hazardous materials at the maximum charge pressure it will experience in service.

Of the 1,952 cylinders that Lite Cylinder had on hand, PHMSA concluded that approximately 804 were not manufactured in accordance with the hardness “puck test” requirements of DOT-SP 14562 and excluded these from testing. Of the 1,148 remaining cylinders that Lite Cylinder certified as meeting the special permit requirements, 53 leaked during the pneumatic leak pressure testing, demonstrating a failure rate of approximately 4.6% in violation of the requirements of DOT-SP 14562 and the QSM. These cylinders were previously tested during the manufacturing process, and Lite Cylinder certified them as meeting all requirements of the special permit. Therefore, the entire sample should have been leak-free.

PHMSA believes that the cylinders previously sold by Lite Cylinder, although tested during the manufacturing process, may also exhibit leakage in service. These cylinders are commonly used to contain flammable gas. PHMSA considers the risk of fire due to leaking DOT-SP 14562 cylinders containing flammable gas to be unacceptable. In order to avoid potential injury or damage, PHMSA is removing from service all DOT-SP 14562 cylinders.