SAFETY BULLETIN: 2025-0001 Issued 31 July 2025

NOTE: Training Clarification

SUBJECT: Potential for Flex Hose Failure from Rapid Pressurization

Affected Products:

Oxygen Booster Pump (OBP), Oxygen Replenishment Cart

Part Numbers: 607542-0, 607542-1, 607542-2, 607542-3

Issue Description:

It is possible for rapid pressurization of the flex hoses to cause a failure.

During the filling procedure in a fielded unit, a leak was detected, and one hose was depressurized without depressurizing the high-pressure side of the OBP. The hose was then repressurized, which immediately exposed it to high pressure. This led to the failure of the flex hose.

A third-party investigation attributed the most likely cause of the incident to heating caused by rapid compression of the small mass of oxygen gas inside. No injuries occurred as a result. There is no hazard when the booster pump gradually brings the high-pressure side of the system up to pressure.

Action Required

A clear procedural error and cause have been identified for this incident, which is mitigated by the procedure below. Despite this, Airborne Systems is also performing a thorough investigation in partnership with outside, independent experts to ensure our high standard of oxygen system safety and reliability continues.

Training:

Operators must comply with the following procedure if a leak is detected while filling. Updated versions of these product manuals are being written to incorporate this new procedure.

1. If on, turn off the booster pump.
2. Fully close the inlet shutoff valve on the front panel of the booster pump.
3. Depressurize the booster pump by slowly opening all the bleeder valves. Any valve which was open during filling should remain open while bleeding out the pressurized oxygen.
4. Once the entire booster pump is depressurized take appropriate action to fix the leak.
5. Close the bleeder valves.
6. Ensure the valve from the booster pump to the manifold is open. (manifold inlet valve)
7. Ensure the valves from the manifold to the flex hoses are open if connected to Oxygen equipment and closed if not connected to anything.
8. Re-initiate charging procedures ensuring regulator is reset to 500 ± 100 psig per standard operating procedures.
9. If leak still detected, return to step 1 to depressurize the system and cease use of booster pump until action to diagnose leak has been successful.

During filling, never open a valve to an individual flex hose after the high-pressure side of the booster pump has been pressurized to greater than 500 ± 100 psig.