

Bulletin 2020.4 Update on Filter Monitor Use and Phase-Out October 2020



Critical Items in This Bulletin:

- ***The current risk of SAP migration from filter monitors is adequately mitigated and further mitigation of any remaining risk must be accomplished safely.***
- ***Filter monitors qualified to EI 1583 7th edition will continue to be listed in the ATA103 after withdrawal of EI 1583.***
- ***A phase-out date for filter monitors cannot be determined at this time.***
- ***Once more data is collected and after a replacement is approved, a filter monitor phase-out date will be announced, and filter monitors will be phased out of the ATA103.***

According to recent data, the risk of super absorbent polymer (SAP) migration from filter monitors has been reduced by nearly 98%. The remaining *de minimis* risk must be further mitigated in a manner that does not jeopardize safety.

Following the IATA Super Absorbent Polymer Special Interest Group's position statement that "filter monitors shall be phased out of all aviation fuel handling systems," the industry has worked diligently, yet safely, to evaluate novel filtration technology that improves dirt and water protection for aircraft and meets fueling operations requirements. The industry is working hard to develop drop-in replacements that will improve the removal of both dirt and water from jet fuel with zero SAP migration risk. However, as of today, no commercially viable, approved drop-in replacement to filter monitors exists.

Two filter technologies are available, but neither is a true drop-in replacement to filter monitors. The first, filter water separators (FWS), requires installation of a larger filter vessel which cannot always be fitted onto existing refueling equipment. The second, dirt defense filters with electronic water sensor system (DDF+EWS), removes dirt in fuel, but only alerts to the presence of free water and does not remove that water. Neither technology alone can meet the industry's fuel filter needs.

Because an approved drop-in replacement does not exist, a phase-out date for filter monitors cannot be determined at this time. If a drop-in replacement to filter monitors is approved, a chosen end date must provide adequate time for the manufacture, distribution, training, and installation of such approved alternative. A global transition away from filter monitors may take 18-24 months after approval of the replacement filter technology. Although promising developments with new technologies continue, none have been approved for inclusion in the ATA103.

The risks of unsafe and inadequate equipment are well documented. If no improved dirt- and water-removing filter replacement is developed, a chosen phase-out date must provide adequate time for the manufacture of new fueling equipment, the extensive modification of existing equipment, and other alterations, including fitting of sophisticated electronics. The industry anticipates that a safe global adoption of FWS and DDF+EWS as a filter monitor alternative will likely exceed 10 years.

Once more data is collected on drop-in technologies and a replacement to filter monitors is approved, a date for the phase-out of filter monitor technology will be announced and included in the ATA103, with safety being the primary consideration for the phase-out date. The industry should not rush to replace the *de minimis* SAP migration risk with increased risk of dirt and water on aircraft. In the meantime, as outlined in [A4A Bulletin 2019.1](#), ATA103 will continue to list filter monitors previously qualified to EI 1583 7th edition if EI 1583 is withdrawn.

Questions or requests for further information should be submitted to fuel@airlines.org

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