

Bulletin 2023.2 Mandatory Emergency Actions for Filter Monitor Vessels/Elements October 2023



On October 4, 2023, Facet Filtration notified the industry that an internal quality test detected Super Absorbent Polymer (SAP) downstream of their filter monitor elements. Subsequent retesting at an independent laboratory has confirmed this to be a valid finding. Therefore, the following emergency measures are being imposed in the ATA103 with immediate effect. ***The following eight actions are applicable to all sites operating to the ATA103 standard and apply to all filter monitors regardless of filter element manufacturer/brand.*** These measures are intended to be temporary actions while Facet filter monitors are removed from service. Sites that do not have any Facet-brand filter monitors in their operation can request a waiver from these emergency measures using the procedures outlined in ATA103 paragraph 2.1.4.

ACTION 1: All Facet Brand Filter Monitor Elements Shall Be Replaced by Other Listed Elements as Soon as Practicable and Filter Monitor Elements are Limited to Those Listed in ATA103 Annex A-3

Airlines for America is immediately modifying ATA103 to ***immediately replace all Facet-brand filter monitor elements and use only those elements listed in ATA 103 Annex A-3.*** ATA103 paragraph 2.8.2.2 is modified to state the following:

2.8.2.2. Filter Monitors (Full Flow Fuel Monitors)

~~Filter monitor vessel and element combinations shall meet the requirements of [EI 1583], 7th edition. The Energy Institute has withdrawn the [EI 1583]. The requirement for filter monitor vessels and elements to adhere to the [EI 1583] 7th edition shall remain in effect even after the [EI 1583] has been withdrawn. [Annex A-3] includes a listing of filter monitor elements that have been previously qualified to [EI 1583], 7th edition. Only those elements listed in [Annex A-3] shall be permitted.~~

Filter monitor vessels shall meet the requirements of EI 1583, 7th edition. Only those filter monitor elements listed in Annex A-3 shall be permitted.

Although the requirement to remove Facet-brand filter monitors applies immediately, it will take time to order and replace all Facet filter monitor elements. Filter monitors shall not be operated outside the limits and requirements in ATA103 and all those outlined in this bulletin. However, all Facet filter monitors shall be removed from service **no later than January 1, 2024.**

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ACTION 2: Filter Monitor Differential Pressure Limit Lowered to 10psi

Airlines for America is immediately modifying ATA103 to **limit maximum filter monitor differential pressure to 10 psi**. ATA103 paragraph 3.14.1.3. will now state the following:

3.14.1.3. Monitor Elements (Full Flow Monitor Elements)

Monitor elements must be replaced when any of the following conditions are met:

1. Filter Membrane Test indicates element is not performing (Ref. [Section 3.2])
2. Differential pressure exceeds 10 psi or there is a sudden drop in differential pressure
3. Chemical water detection test indicates a positive reading of more than 30 ppm (Ref. [Section 3.3])
4. 12-month service life has expired

Differential pressure limiting devices do not need to be reset for these temporary measures. However, all operators shall be trained on the new operating differential pressure limit. The maximum differential pressure for each fueling should be documented on either the fueling ticket or other appropriate record.

ACTION 3: Filter Monitor Differential Pressure Shall be Corrected to Max Flow Rate Daily

Airlines for America is immediately modifying ATA103 to **increase the frequency for correction differential pressure to daily for filter monitor vessels**. ATA103 adds new paragraph 2.9.3.16 as follows:

2.9.3. Daily Checks

2.9.3.16. Filter Monitor Differential Pressure Recorded at, or Corrected to, Maximum Achievable Flow Rate

For all filter monitor vessels, at the maximum achievable flow rate, check and record the differential pressure and flow rate. Preferrably, flow rate should be above 50% of maximum vessel rated flow. Where the filter monitor cannot be exposed to the maximum achievable flow rate of the equipment, use a procedure endorsed by the manufacturer of the filter monitor elements to correct the differential pressure to maximum achievable flow rate and record the value. Record method used.

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ACTION 4: Filter Monitor Differential Pressure Gauges Shall Include Visual Guides

Airlines for America is immediately modifying ATA103 to **require all filter monitor differential pressure gauges to be visibly marked to indicate the 10psi maximum dP**. These visual markings shall indicate to fueling operator the maximum differential pressure allowed. Marking shall be visible from the fueling position and shall not obscure the full piston. ATA103 paragraph 2.8.2 is modified as follows:

2.8.2. Filters

All filtration vessels shall include:

[...]

- (b) Direct reading differential pressure gauges with an accuracy of +/- 2 PSI. Gauges fitted onto vessels containing filter monitor elements shall be modified to visually mark the 10psi maximum operating limit. Markings shall be visible during refueling operations

ACTION 5: Filter Monitor Vessels Shall Include Visual Guides

Airlines for America is immediately modifying ATA103 to **require additional markings on filter vessels that contain filter monitor elements**. All filter monitor vessels shall be visibly and uniquely marked to alert the operator that fueling equipment contains filter monitors and additional checks/tests and training are required. These marking shall be separate and additional to the required placarding. ATA103 paragraph 2.8.2.2 is modified as follows:

2.8.2.2. Filter Monitors (Full Flow Fuel Monitors)

In addition to the requirements in [\[Section 2.8.2\]](#), filter monitor vessels shall be equipped with:

[...]

- (d) Stencils, markings, or other visual indicator that the vessel contains filter monitor elements. These markings shall be separate and distinct from the placards required in Paragraph 2.8.2

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ACTION 6: Filter Monitor Inventory Lists

Airlines for America is immediately modifying ATA103 to **require all into-plane operators to maintain an up-to-date master list of fueling equipment fitted with filter monitors**. ATA103 paragraph 2.8.2.2 is modified as follows:

2.8.2.2. Filter Monitors (Full Flow Fuel Monitors)

[...]

Operators with responsibility for aircraft fueling shall maintain a master list of aircraft fueling equipment fitted with filter monitors, including the manufacturer of filter elements currently installed.

ACTION 7: Nozzle Screen Cleaning Increased to Bi-Weekly

Airlines for America is immediately modifying ATA103 to **increase frequency of nozzle screen cleaning for fueling equipment fitted with filter monitors to bi-weekly (once every 2 weeks)**. ATA103 is adding new paragraph 2.9.9. as follows:

2.9.9 Other Interval Checks

2.9.9.1. Bi-Weekly (Every Other Week) Checks

2.9.9.1.1 Nozzle Screens On Fueling Equipment Fitted with Filter Monitor

- (a) Examine each nozzle screen for particles or other solid contaminants
If particles are found, investigate possible sources of contamination (inner hose lining, pipe rust, sand, seals, gaskets, equipment failure, etc.) and take appropriate corrective action
- (b) One of the following shall be performed even when there is no visual evidence of nozzle screen contamination:
 - a. Nozzle screen shall be cleaned using the procedures outlined in [Section 3.17] or equivalent procedure, or
 - b. The nozzle screen shall be replaced with a screen that has been cleaned using the [Section 3.17] or equivalent procedure, or
 - c. The nozzle screen shall be replaced with a new screen
- (c) Verify that screens are 100 mesh
- (d) Damaged screens shall be replaced

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ACTION 8: Add Requirement for Downstream Millipore Testing when Filter Monitor Vessels Reach Maximum Differential Pressure (10psi)

Airlines for America is immediately modifying ATA103 to **require downstream sampling and testing when filter monitor vessels reach maximum differential pressure (10psi)**. ATA103 Paragraph 2.8.2.2 is modified as follows:

2.8.2.2. Filter Monitors (Full Flow Fuel Monitors)

[. . .]

In the event that the pressure limiting device is activated, the operator shall be questioned about the proper monitoring of differential pressure during fueling. Differential pressure records on the vessel shall be examined and corrective action taken if necessary.

Upon reaching a 10psi (corrected or uncorrected) differential pressure, the following actions shall be taken:

- a) The equipment shall be immediately removed from service
- b) Downstream Millipore sample shall be taken by flowing two [2] gallons of fuel through the Millipore pad
 - a. Millipore casing shall be immediately sealed by plugging the upstream and downstream ports. Operator shall take appropriate care to ensure casing is securely sealed for transport
 - b. Millipore shall be tested for presence of Super Absorbent Polymer (SAP). Immediately contact Airlines for America at filtration@lists.airlines.org for further instructions
- c) All affected airlines shall be notified

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

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