

THIS BULLETIN IS ADDRESSED TO ALL OPERATORS WHO USE FILTER MONITOR FILTRATION ELEMENTS. **FILTER MONITORS WILL BE WITHDRAWN FROM THE JIG STANDARDS WITH EFFECT FROM 1ST JULY 2023.** IN ADDITION, JIG BULLETIN 105 (SAP MITIGATION ACTIONS) WILL BE WITHDRAWN IN JULY 2024 AND WILL NO LONGER BE VALID FOR USE IN CONJUNCTION WITH THE JIG STANDARDS.

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Background

Since the IATA Special Interest Group's (SIG) 2017 report on Super Absorbent Polymer (SAP) migration, the aviation industry has worked continuously to develop and evaluate new technology to replace SAP-based filter monitors (FM), without the need for vessel configuration changes. The availability of drop-in solutions was identified as the fastest way to eliminate SAP-based filtration from all aviation fuel handling applications for the reasons explained in JIG Bulletin 105 and the documents referenced therein.

It should be noted that the mitigating actions set out in JIG Bulletin 105 (Actions to mitigate SAP migration) when followed by Operators do not completely eliminate the risk of SAP migration. As the SIG's work demonstrated, some migration could take place even when fuelling using SAP FMs at low differential pressures. This is why JIG Bulletin 105 sets out the industry's agreed roadmap towards phase-out of FMs.

A joint industry programme designed and funded by JIG, IATA and A4A - the Joint Industry Filtration Field Trial Group – has been working since 2018 to conduct field evaluation of new Energy Institute qualified or evaluated (as applicable) filtration/sensing technology being presented for adoption into the Standards as a viable replacement for SAP FMs. Since August 2020, the drop-in option of DDF/EWS has been adopted in the JIG Standards (see JIG Bulletin 130) in addition to the already accepted Filter Water Separator (FWS – EI 1581) and Microfilter (MF – EI 1590) Technologies (see Appendix 1).

As a consequence of these positive developments, the widespread availability of existing proven technology and the ongoing work conducted by JIG, IATA and A4A via the Joint Industry Filtration Field Trial Group, JIG is now able to set a withdrawal date for SAP FMs from its Standards, allowing Members and Operators/Users to complete implementation of their transition plans towards accepted replacement technologies.

The Joint Field Trials Group are continuing to evaluate new technologies though Users are reminded that it is not guaranteed that these technologies will prove suitable for adoption into the JIG Standards.

Change to JIG Standards

FMs will be withdrawn from the JIG Standards with effect from 1st July 2023. Users of JIG Standards shall replace FMs with the accepted technology listed in Appendix 1. (Noting that further technology options could be added to Appendix 1)

Operators should have transition plans for the removal of FM technology in place by no later than end of Q1 2021. It is recognised that operators may need to update their transition plans in line with any future developments. Transition plans shall ensure adequate time to execute the change and corresponding MOC to meet the July 2023 deadline. The JIG Inspection Checklist will contain additional questions to verify the existence of phase out plans and timing of such plans.

Recognising that some regions and operators may face logistical challenges and that new technologies may not be available for purchase or retrofitting as rapidly as currently anticipated, JIG Bulletin 105 will remain an active document. **JIG Bulletin 105 will be withdrawn in July 2024** and will no longer be valid for use in conjunction with the JIG Standards at that time.

Further Guidance

Operators are reminded they shall follow the mitigating actions indicated in JIG Bulletin 105 during the transition period away from FMs. As explained in JIG Bulletin 105, those mitigating actions do not eliminate risk in the use of SAP-based FMs in fuelling operations and transition for all Operators to replacement solutions at the earliest opportunity is crucial. This is why the Joint Industry Filtration Field Trial Group has since 2017 focussed on realising the industry roadmap for transitioning to non-SAP-based filtration technologies.

The JIG Standards have at all times emphasised that it is the responsibility of each Operator to determine which of the available technologies is appropriate for its locations and circumstances and to conduct any Risk, process and reliability assessments as may be appropriate, and that JIG does not make Operator-specific recommendations for particular technologies; the responsibility for deciding upon which technology is appropriate remains with the Operator. This remains applicable to existing and new technologies which will be introduced via the JIG Standards.

Operators are reminded of the importance of employee training and Management of Change.

Actions to Implement this Bulletin (See Table 2 for Action Type Codes)

| Action Description | Action Type | Effective as of |
|---|-------------|-----------------------------|
| Entities operating in accordance with JIG Standards shall phase out FMs from their operations by no later than 1 st July 2023. As part of the phase out, Operators shall establish a risk-based Management of Change plan, including location suitability assessment for the proposed new technology, training of personnel and update of operating manuals/procedures. | JS | 1 st July 2023 |
| Operators should have transition plans for the removal of FM technology in place. | RP | 31 st March 2021 |

If you have any questions about this Bulletin, please write to filtration@jigonline.com

Appendix 1 – List of Accepted Filtration systems for Members and Operators with effect from 1st July 2023

Table [1] below includes filtration or filtration/sensor combinations that are currently accepted by JIG Standards at the time of writing. All technologies listed below must conform to the latest version of the governing EI specification: FWS: Filter Water Separators (EI 1581); MF: Microfilters (EI 1590); DDF: Dirt Defence Filters (EI 1599); EWS: Electronic Water Sensor (EI 1598).

This list will be supplemented in subsequent Bulletins should any other filtration systems be adopted into the Standards.

Table 1 - List of Accepted Filtration systems - Alternatives to FMs

| JIG Standards | Application | Accepted options |
|---|--|---|
| JIG1 | Into-plane JET | FWS |
| | | DDF+EWS |
| | Into-plane AVGAS ¹ | FWS |
| | | MF |
| DDF | | |
| JIG2 | Receipt JET | FWS |
| | Loading JET | FWS |
| | | DDF+EWS |
| | Receipt/Loading AVGAS ¹ | FWS |
| | | MF |
| | | DDF |
| | | 100 mesh Strainer (gravity receipts into U/G tanks) |
| JIG4 | Into-plane JET | FWS |
| | | DDF+EWS |
| | Into-plane AVGAS ¹ | FWS |
| | | MF |
| | | DDF |
| | Receipt JET | FWS |
| | | MF |
| | | DDF |
| | Loading JET | FWS |
| | | DDF+EWS |
| | Receipt/Loading AVGAS ¹ | FWS |
| | | MF |
| | | DDF |
| 100 mesh Strainer (gravity receipts into U/G tanks) | | |
| EI/JIG 1530 | S&D Facilities- <i>FM in any application strictly prohibited</i> | FWS |
| | | MF-Avgas only |

(1) EWS on Avgas equipment is optional. Where used, the sensor shall be approved for use with Avgas.

Table 2 Action Type Codes

| Action Types | JIG Bulletin Action Type Definition |
|---|---|
| JS | Change to JIG Standard – to be adopted by JV and/or Operator to continue to meet the JIG Standard(s) (JIG 1, 2, 4, EI/JIG 1530 and the JIG HSSE Management System). |
| RA | Required Action to implement one off verification or checks outlined in the table of actions. |
| RP | JIG Recommended Practice which the JV should consider adopting as its own practice (**). |
| I | Issued for information purposes only. |
| <p>Note (**) - If the JV agreements require any of the JIG Standards and/or any of the JIG Common Processes as the governing operational standard then adoption of changes to applicable JIG Standards and/or Common Processes should not be considered optional by the JV Board.</p> | |

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