The design, operation and maintenance of fuelling systems are of critical importance. To increase safety across the industry Swire Energy Services shares information with all stake holders by issuing Safety, Information and Technical bulletins. In this way we hope to prevent future incidents and limit human safety risks as well as developing efficient operations.

INFORMATION BULLETIN NO. 23/01

April 2023

TOPIC: WATER BARRIER FILTRATION INTRODUCTION PLAN

1 Why are we sharing this bulletin?

The purpose of this bulletin is to inform helicopter refuelling system owners/operators, of the Swire Energy Services guideline transition plan away from Filter Monitor to Water Barrier Filtration.

What is the Event that made us publish this?

The specification for the Filter Monitor EI 1583 was withdrawn 31st December 2020. Joint Inspection Groupe (JIG) has stated that the last date for use of Filter Monitor is 1st July 2023, this has been adapted by CAA-UK into CAP-437 which recognises 1st July 2023 as the transition deadline. In the Norwegian Sector the Offshore Norge 074 Recommended Guidelines, Helideck Manual has established that the last date for use of Filter Monitor was 30th June 2022. The Water Barrier Filtration is accepted for use by JIG (bulletin no. 147) and Airlines for America (A4A, bulletin 2022.1), and they allow the use of the Water Barrier Filtration manufactured by Parker Velcon on Jet A-1 refuelling systems. Parker Velcon 2-inch CDFX Water Barrier Filtration is qualified to EI 1588 2nd addition and is a drop-in replacement for the Filter Monitor without the need for vessel modification.

3 What are the recommended corrective Actions?

Duty holders and operators in conjunction with Swire Energy Services, should have a transition plan away from Filter Monitors and introduce the used Water Barrier Filtration. Swire Energy Services have prepared a generic plan away from Filter Monitors for the most common operating regions and regulatory standards.

EI 1588 Water Barrier Filtration is not designed to be installed in a 3-stage filter vessel. Depending on where the 3-stage filter vessel are located, Swire Energy Service recommended to either modify the 3-stage vessels to a 2-stage Filter Water Separator (FWS), or modify the 3-stage vessel to a Water Barrier Filtration vessel and install a 2-stage FWS upstream of the Water Barrier Filtration vessel.

CAA-UK:

Offshore installations and marine vessels in UK can as a minimum standard use FWS as the primary filtration per CAP 437. In those cases where FWS is the primary filtration, Swire Energy Services recommend reintroduce the secondary filtration and install Water Barrier Filtration qualified to EI 1588 $2^{\rm nd}$ edition where previous Filter Monitor were used.



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Swire Energy Services recommends installing the Water Barrier Filtration for safety reasons as it is difficult to discover when a 2-stage filtration in the FWS fails unless the delivery hose end fuel test is contaminated. Together with the Water Barrier Filtration a Differential Pressure Limiting device shall be installed, Swire Energy Services recommends continue using 15 psi as the changeout setpoint on the Water Barrier Filtration as previous used with Filter Monitor.

Outside UK: For offshore installations and marine vessels outside UK choosing to follow CAA-UK CAP 437, can obtain a Certificate of Compliance approval from Swire Energy Services. Duty holders and operators must follow the maintenance frequency set by CAA-UK CAP 437 latest edition.

FWS can as a minimum standard be used as the primary filtration, but Swire Energy Services recommends installing the Water Barrier Filtration for safety reasons as it is difficult to discover when a 2-stage filtration in the FWS fails unless the delivery hose end fuel test is contaminated. Together with the Water Barrier Filtration a Differential Pressure Limiting device shall be installed, Swire Energy Services recommends continue using 15 psi as the changeout setpoint on the Water Barrier Filtration as previous used with Filter Monitor.

Certification of the helicopter refuelling system will only be awarded for 3-monthly Certificate of Compliance approval intervals per CAA-UK CAP 437.

CAA-NO:

CAA-NO and Offshore Norge 074 Recommended Guideline, Helideck Manual. Offshore installation and marine vessels who follow Norwegian standard the deadline for upgrading their refuelling system either to Electronic Water Sensor/Dirt Difference Filter or Water Barrier Filtration was 30th June 2022. Since it is only performed annual inspection, a secondary filtration is recommended as a safety future. Both A4A and JIG support the use of the Water Barrier Filtration as a replacement for the filter monitor, based on the published bulletins, Swire Energy Services recommend that Norwegian offshore installations and marine vessels replace the Filter Monitor with Water Barrier Filtration.

Together with the Water Barrier Filtration a Differential Pressure Limiting device shall be installed, Swire Energy Services recommends continue using 15 psi as the changeout setpoint on the Water Barrier Filtration as previous used with Filter Monitor.

JIG 4:

For offshore installation and marine vessels following JIG 4, secondary filtration is recommended as a safety feature due to the annual inspection regime. Swire Energy Services support use of Water Barrier Filtration as secondary filtration and as a drop-in replacement for the Filter Monitor.

Together with the Water Barrier Filtration a Differential Pressure Limiting device shall be installed, Swire Energy Services recommends continue using 15 psi as the changeout setpoint on the Water Barrier Filtration as previous used with Filter Monitor.

USA:

For offshore installation and marine vessels following HASC, USCG or placed in US territory, Swire Energy Services support use of Water Barrier Filtration as secondary filtration and as a drop-in replacement for the Filter Monitor. Together with the Water Barrier Filtration a Differential Pressure Limiting device shall be installed, Swire Energy Services recommends continue using 15 psi as the changeout setpoint on the Water Barrier Filtration as previous used with Filter Monitor which is aligned with the A4A bulletin.



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