

**This is a Guidance Bulletin (Non-Mandatory)
Supplements JIG Bulletin 128**

Summary

This updated Bulletin includes guidance to users of JIG standards and provides the following information for sites operating at reduced activity levels and/or preparing for a resumption of activities:

1. Confirms the extension of validity of JIG Bulletin 128, until further notice.
2. Supplements the guidance information provided in JIG Bulletin 128 regarding the return/recommissioning of equipment or facilities that had been set temporarily out of service or decommissioned.

Background

On 25th March 2020, JIG issued Bulletin 128 to offer guidance to users of JIG standards in managing operations under the conditions of the COVID-19 pandemic but also to prepare for a return to normal service levels when activity begins to recover.

Since the beginning of the pandemic crisis, JIG has been continuously monitoring the situation and communicating with its members, in order to offer guidance and support a smooth return to operations, as the demand for air travel begins to recover and facilities progressively resume operations.

Operating sites are reminded that recommendations provided in this Bulletin need to be carefully considered in conjunction with recommendations and guidance from public/local health authorities, company guidelines/requirements, local or national legislation in effect at each location, local agreements or other binding documents as required.

Management of Change (MOC)

Operators who previously activated their Business Continuity Plans (BCPs) and have been applying a Management of Change (MOC) process during the period of pandemic, should continue reviewing the implementation of their BCP and MOC plans and conduct post implementation reviews of the suitability and effectiveness of their MOC closure plans. All changes should be communicated to those affected, including airport authorities, users of the facilities and other stakeholders as required.

Where equipment may be out of use for longer than initially planned, the associated risks and MOC plans should be reassessed. The following should be considered as part of the MOC plans:

- **Personnel:**

1. As operations ramp up, ensure the required staffing levels are established and shift patterns are optimised for the operations providing protection to personnel and adequate coverage should there be a COVID19 outbreak at the facility, e.g. weekly

rotation of shift patterns may be considered.

2. Ensure that maintenance staff or contractors are readily available to support any emerging issues as part of equipment/facility recommissioning.
3. Assess need to provide refresher training to site personnel and contractors (where required), including refresher training on existing procedures or updated/new procedures where required.
4. Ensure all changes since the start of the pandemic (e.g. changes introduced via JIG Bulletins or Industry Bulletins etc.) are all known and communicated to those affected.
5. If there has been a reduction in the number or availability of experienced operators during the pandemic period, ensure that full induction and essential training can be given and shift patterns organised to ensure sufficient collective experience for safe operations.

- **Operations**

1. Assess the need and readiness to conduct non-routine operations where required (e.g. defueling) or fulfil maintenance requirements (e.g. tank cleaning, MBG testing, preventive maintenance of equipment) and establish plans as appropriate.
2. Establish plans to restore normal test/check frequencies, where equipment checks or tests had been performed at reduced frequency, as part of approved Variances and MOC (as detailed in Bulletin128).

- **HSSE**

1. Update HSSE procedures as necessary, e.g. update site HSSE induction procedures to include new/updated requirements and procedures against virus transmission (e.g. for physical distancing, hand washing, use of additional personal protective equipment such as face masks, etc.)
2. Ensure the pandemic emergency response plans are in place, updated to reflect learnings from the response to this pandemic, communicated to personnel and incorporated into routine testing.
3. Ensure local Work Control Procedures (including work permits) are followed where required (e.g. for recommissioning equipment that might have been in pressurized status, for activity requiring confined space entry such as inspections of hydrant valve chambers, etc.)
4. Where isolated or decommissioned equipment is reinstated, follow the Lock Out Tag Out (LOTO) procedures that are in effect at the location, remove or update signage of equipment that was previously marked 'out of service', unlock valves, etc.
5. Consider Human Factors in the reinstatement of operations e.g. possible distraction, stress and fatigue of personnel due to the COVID-19 situation. Conduct regular safety walks to check condition of operating staff and provide guidance as necessary.

Note: The JIG HSSE Committee is preparing additional guidance materials providing examples where Human Factors may need to be considered with the gradual return to normal operations, which will be published shortly.

Recommissioning Plans

Establish recommissioning plans for all equipment that has been temporarily placed out of service or decommissioned. These plans should include provisions to conduct all necessary checks prior to equipment re-instatement. In addition, airport authorities, airline customers and other stakeholders should be contacted and consulted with, as required by local regulations, local agreements etc. The items listed below should be taken into consideration.

General

General	
Check	Additional information
Safety	The overriding principle remains the protection of people. Establish procedures that minimise activity that could result in the spread of the virus as staffing levels may progressively increase. These should include provision of required PPE, procedures for enhanced hygiene of personnel and cleansing of shared rooms/facilities and equipment, control of visitors etc.
Security	Restore security procedures at sites that had been temporarily shut/unmanned. Engage with airport authorities as facility/apron entry restrictions are being lifted. Ensure all personnel hold valid airport entry permits, where required, e.g. to restricted areas for re-commissioning of fuel facilities, or hydrant checks on the apron.
Variances	Ensure all Variances in effect at the location have been appropriately authorised, check whether they remain valid or have been closed as required
Certificate Validity	For new incoming fuel batches contact suppliers to ensure that fuel delivered has sufficient calendar life in certification to match expected offtake. For fuel stocks held on site, ensure static stock testing is conducted (where required) in time for the release of the fuel stock. See static stock testing below.
Static stock (i.e. batches older than 6 months or tanks in which less than half of the product has been replaced during the 6-month period)	For tanks with static stock, ensure Periodic Testing is conducted and confirm satisfactory test results are obtained before release of fuel stocks. For fuellers containing fuel that has remained static for more than 6 months, return fuel to storage tank that will next receive fresh fuel, up to 3% residual heel in that tank. Then, refill fueller with fresh fuel and recirculate with 2x volume of deadstock minimum.

General	
Check	Additional information
	<p>For fuellers containing fuel that has remained static for less than 6 months, recirculate fuel in the vehicle tank, conduct a Visual Appearance Check + CWD Check (for Jet fuel) and Conductivity Checks to confirm satisfactory results before recommencing fuelling.</p> <p>Recirculate all delivery hoses with at least 2x volume of hose.</p> <p>For fuel that remained static in portable or fixed fuel flushing equipment or sample collecting equipment, conduct a Visual Appearance + CWD Checks (for Jet fuel) and Conductivity Check to confirm satisfactory results before return fuel to storage or recovery tanks.</p> <p>Ensure conductivity of static Jet fuel stocks meets the minimum 50 pS/m level (after filtration). If the conductivity is less than 50 pS/m, but greater than 25pS/m, follow the Low Conductivity Protocol where it is not possible to re-dose SDA. If the conductivity is less than 25pS/m, the conductivity needs to be increased either by dosing with SDA or mixing with fresh fuel with a higher conductivity.</p>
General condition of equipment/facilities	Conduct general condition checks of equipment and facilities prior to recommissioning of decommissioned equipment. Conduct thorough visual inspections and inspect for damage, condition, signs of deterioration of materials etc.
Flushing of equipment and facilities	Thoroughly check and flush equipment and facilities, including loading systems, sampling lines, deadlegs, and other equipment that remained static, to ensure they remain in proper operating condition before being re-used. (See guidance above on static stock).
MBG	Visually assess sump samples for evidence of MBG and conduct MBG testing where MBG contamination is suspected or as required and take remedial action as appropriate. See also section below on Storage Tanks.
Fuel supply	Closely monitor fuel stocks against projected volumes as the operations ramp up and fuel demand increases and maintain sufficient stock in consultation with fuel suppliers and airport authorities.
Fuel receipts	Where there have been long periods of inactivity on receipt systems perform enhanced surveillance during fuel receipts for increased or abnormal amounts of contaminants, including potential MBG issues

General	
Check	Additional information
	with incoming fuel batches. (See guidance above)
Routine Checks	Perform all routine checks of equipment as indicated in the respective sections of this document.
Meter Proving	Schedule meter proving for all meters that are due for testing, prior to return of meters to service.
Testing of equipment	Ensure all required QC equipment / measuring devices (conductivity meter, etc) are functional. Schedule calibration or testing of equipment that is due for testing, prior to return the equipment to service. Ensure other required consumables (e.g. CWD or MBG test kits) are available, in good condition and not expired.
Safety and auxiliary equipment	Schedule testing / checking of safety-related equipment such as bonding cables, fire extinguishers, spill kits, eye wash stations/bottles etc. prior to return the equipment to service. For firefighting/fire protection equipment and auxiliary systems (such as batteries, or power generators) ensure all required maintenance checks are conducted and periodic maintenance requirements are re-established.
Records	Update all routine operating, inspection, and maintenance records, as appropriate
Regulations	Ensure all new or changed applicable national and local regulations including contractual obligations are reviewed by competent people within the organisation and implemented as required.
Communications	Hold necessary communications with staff, suppliers, supplying locations and other stakeholders such as airport authorities or other airport operators, as previously applied restrictions are lifted. Ensure clear communication exists between parties sharing equipment of facilities (e.g. test rigs) to ensure a smooth resume of operations. (Note: it is particularly important that the discussion with the airport authority includes a clear understanding of revised operational areas and potential traffic restrictions or rerouting that may be in place as part of the pandemic response)
Airline Notification	Assess need for airline notification based on contractual obligations.
Inspections	Prepare for the annual inspection where possible (for locations included in the JIG Inspection programme in FOS or are being inspected annually), after consultation with the inspecting company that is due to perform the inspection this year. Where the annual inspection cannot be performed, and a decision to postpone the inspection is supported

General	
Check	Additional information
	by the company management/JV or other partners as required by local agreements, the inspections may be postponed after consultation with JIG. In these occasions, a complementing desktop review by the inspecting company and/or a self-assessment by company management should be considered.

Airport Depots

Airport Depots	
Check	Additional information
Routine Checks	Perform all routine checks of storage tanks and fixed equipment and facilities and record the results as required. Where results of any of these tests (floating suction check, tank vents, high level alarm checks, fuel receiving systems, etc.) reveal possible faults, quarantine the equipment until the issues are identified and rectified as necessary.
Tank Inspection	If the tank was taken out of service, conduct an internal visual inspection from outside (for Jet fuel tanks only) through a suitable manhole (without entry). For all tanks, establish tank cleanliness using the results of the visual inspection (Jet only) and tank drain records, downstream filter drain records, membrane test results etc. Where an internal visual inspection of Jet fuel tanks is not possible, an MBG test is considered an equivalent control.
MBG testing	Take a sump sample for an MBG test, prior to returning a previously decommissioned tank to service. If results of MBG checks are satisfactory, the tank can be re-commissioned, otherwise the results should be reviewed by a competent person and, if required, a plan should be established for tank inspection and cleaning before re-commissioning
Product Recovery Tanks and Quick-Flush Tanks	For Product recovery tanks, conduct a visual inspection or MBG test as required by JIG standards. For QFT, conduct a thorough visual inspection for cleanliness and condition check.
Pumps and other motorised equipment (valves etc.)	Test operation of pumps and motorised equipment to ensure electrical systems and safety systems are fully operational prior to restart of normal operations. Ensure all necessary mechanical and electrical maintenance and certification is up to date.

Into-plane fuelling equipment

Into-plane fuelling equipment	
Check	Additional information
Routine Checks	Perform all routine checks of fuelling equipment (routine vehicle checks, Interlocks, PCV and deadman, etc.) and record the results as required. Where results of any of these tests reveal possible faults, quarantine the equipment until the issues are identified and rectified as necessary.
Utilization of Fuelling equipment	Recommission fuelling equipment commensurate with the aircraft types required to be serviced. E.g. for airports that start servicing primarily narrow-body aircraft in domestic flight or short-haul service, consider the use of equipment that is more suitably designed for these aircraft types.
Flushing on test rig	Where necessary, circulate vehicles (on a test rig or within a fueller) to verify that all seals and pipework are wet with fuel. Flush mobile fuelling equipment with at least 2x volume of fuel contained in pipework, filter and all delivery hoses. Flush each delivery hose with 2x volume of hose, once the initial 2x volume system flush is complete. Sample fuelling equipment daily as per routine off-ramp sampling requirements. See also General section above.
Electronic Water Sensors	Where EWS are used in place of CWD on equipment that has not been used for more than a week, circulate fuel through the unit (either on test rig or within a fueller), at the maximum achievable flowrate, preferably back to storage, to thoroughly flush any water accumulated or condensed in the fuelling pipework over the period of dormancy before the vehicle returns to service.
Fuelling Operations	Enhanced surveillance is recommended during normal fuelling operations. For example, close monitoring of filter dP, dP limiting devices, water defence systems such as water slug valves or electronic bulk water detectors, electronic water sensors (where used), gauges, etc.
Additional Services	Ensure any changes to the requested level of services are subject to prior agreement with the concerned airline customer and refresher training by the concerned airline (or other agreed method of training) is given to affected personnel, where/as necessary.
Defueling	Defuelling operations require prior agreement with the concerned airline, careful planning and well-defined procedures for handling fuel that is either confirmed or suspected of being contaminated. Ensure there is availability of trained and competent operators with appropriate supervision.

Into-plane fuelling equipment	
Check	Additional information
Overwing fuelling	Enhanced surveillance is recommended for servicing aircraft requiring overwing fuelling and strict application of the misfuelling prevention controls defined in the JIG standards.

Filters

Filters	
Check	Additional information
Routine checks	Perform all routine checks of filtration equipment and associated accessories (Membrane testing, dP measuring systems, Air eliminator, Thermal relief valve etc.) and record the results as required. Where results of any of these tests reveal possible faults, quarantine the equipment until the issues are identified and rectified as necessary. Where filters have been out of service for more than a month, an internal inspection should be considered prior to return to service, see Filter Inspection below.
Sampling	Drain and sample all filters under pressure/maximum flow conditions, as per the daily filter sampling requirements.
Element Changeout	Elements that have been removed from service or allowed to dry out, even partially, are not to be reused. Recommission the vessel with new elements. Extended changeout intervals beyond the existing requirements are not permitted.
Filter Inspection	Where filters have been out of service for more than a month, an internal inspection should be considered prior to return to service. Conduct a thorough filter inspection, clean inside of vessel, replace gasket/seal of lid if required and install new filter elements per manufacturers recommendation, where elements had been removed, were left to dry out or are due for replacement. Update records and information marked on the filter vessel accordingly.
Filter Commissioning	When new elements have been installed in fuellers and hydrant dispensers, circulate fuel through the unit (either on test rig or within a fueller) at the maximum achievable flowrate, preferably back to storage to remove small fibres, etc. (see A6.3.5). Inspect and clean each hose-end strainer in accordance with Bulletin 105, on equipment fitted with filter monitors, before the unit is returned to service. For equipment fitted with electronic water sensors (EWS), inspection or change of filter elements may result in air entrainment in the system which

Filters	
Check	Additional information
	will trigger an EWS alarm. Temporarily activate the sensor override system prior to fuel circulation and in accordance with the manufacturer’s recommendations and local written procedures, but only for the time required to complete the fuel circulation procedure described above.

Hydrant Systems

Hydrant Systems	
Check	Additional information
Routine checks	Perform all routine hydrant system checks (hydrant pit condition checks and cleaning, hydrant pit valve checks, valve chamber inspections, ESD system checks, etc.) and record the results as required. Where results of any of these tests reveal possible faults, quarantine the equipment until the issues are identified and rectified as necessary.
Recommissioning	Hydrant recommissioning procedures will depend on the extent and length of hydrant shutdown. Establish hydrant recommissioning plans in consultation with airport authorities, considering expected volumes and progressive re-opening of different hydrant sections. Refer to EI 1560 for additional guidance.
Hydrant flushing	For hydrant sections that had been isolated or not subjected to routine flushing procedures, circulation flushing back to storage will be required as part of recommissioning. Where circulation back to storage is not possible, establish an appropriate plan to safely flush at least the line content using e.g. vehicles, with due consideration on whether the required fuel velocity can be achieved etc.
Low point drains	Establish a plan to reinstate the weekly low point flushing procedure, where required. For hydrant sections that had been isolated from service and had not been subjected to routine flushing, there may be a risk of microbiological growth, therefore enhanced surveillance is recommended.
Tightness Control	Conduct hydrant integrity and pressure testing as required
CP	Conduct Cathodic Protection (CP) system checks as required. Resume CP testing within 3 months, if CP testing has been delayed due to lack of availability of the qualified technician
Unused pits	If a hydrant pit has remained unused for more than three months,

Hydrant Systems	
Check	Additional information
	irrespective of configuration, carry out flushing before use.
Double Block and Bleed Valves (DBBVs)	Where hydrant sections had been temporarily out of service, check all DBBV bleed points to verify tightness of DBBV and reinstate routine maintenance procedures
Hydrant Pumps and other motorised equipment (valves etc.)	Test hydrant pumps and other motorised equipment (e.g. motor operated valves, etc.) that had been put out of service, to ensure electrical systems and safety systems are fully operational prior to restarting normal operations. Ensure all necessary mechanical and electrical maintenance and certification is up to date.
Automation/Control systems	Ensure any Automation/Control system (e.g. tank auto gauging, PLC, SCADA systems, etc.) are fully functional and re-establish maintenance programmes, as required.

Inspections and maintenance performed by third parties

Any inspections or maintenance works performed by third parties within this period should take the recommendations provided in this bulletin into consideration.

Actions to Implement this Bulletin (See Table 1 for Action Type Codes)

Action Description	Action Type	Target Completion Date
Entities operating in accordance with JIG standards may follow the recommendations provided in this Bulletin as part of their own pandemic response, Management of Change and recommissioning procedures.	RP	-

Table 1 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.
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.	

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