# Fuelling Vehicle Soak Testing Procedure during Commissioning

## Introduction

This Bulletin is issued to clarify the current JIG requirements for:
- soak testing during fuelling vehicle commissioning as detailed in JIG Bulletin 35 and included in issue 11 of JIG 1 section A5.4, and
- soaking and flushing of new fuelling vehicle hoses as described in JIG 1 section 4.8.3

## Fuelling Vehicle Commissioning – Soak Testing

JIG 1 Appendix A5, Soak Testing Procedures, includes a table in section A5.4 (shown below) which details the required soak testing procedures for new vehicles and ancillary equipment. At the end of the specified soak periods, representative samples are required to be taken for laboratory testing.

| | Vehicle Storage Tanks (Note 3) | | Vehicle Ancillary Equipment | | Pipelines |
|---|---|---|---|---|---|
| | Fully Lined | Aluminium or Stainless Steel | Pumps, valves, meters etc. | Filter Vessels | Fueller Loading Systems |
| Duration | 4-7 days (Note 1) | 1 hour | (Note 2) | | 4-7 days |
| Min Fuel Volume | Enough product to cover the suction & the inlet connection to allow circulation of product without pump cavitation | See A5.3.2 | | | Fill lines completely |
| Lab Testing | Jet Fuel: Appearance, Existent Gum, MSEP, Conductivity, Saybolt Colour, JFTOT, Distillation & Flash Point<br>Avgas: Appearance, Existent Gum, Water Reaction & Distillation | | | | |
| Sample Volume | Jet Fuel: 5 Litres or 1 usg<br>Avgas: 5 Litres or 1 usg (20 Litres or 5 usg required for a full specification test) | | | | |

**Note 1:** Applies to lining material meeting EI 1541 and covered by a 10 year joint material and applications warranty from the manufacturer.

**Note 2:** Newly installed ancillary equipment (e.g. pumps, filter vessels, valves, pit valves, control valves, meters, sense tubing, water drain lines, (etc) should be soak-tested during the vehicle system soak test.

**Note 3:** New vehicles delivered directly from the manufacturer or vehicles arriving at an airfield location without records or after repairs at a contractor facility or vehicles that have been out of service for an extended period.

*Clarification - Section A5.4 is intended to apply to vehicle tanks and rigid pipework & ancillary equipment only.*
*The requirements for soak testing of new fuelling vehicle flexible hoses are detailed in section 4.8.3 of JIG 1.*

## Fuelling Vehicle Flexible Hoses

JIG 1 section 4.8.3 requires that new hoses shall be filled with product and left to soak for a minimum of 8 hours at a temperature of 15°C or higher before flushing with at least 2,000 litres. Flushed product shall be visually inspected until no evidence of manufacturing residue is detected and shall be returned to a storage tank that is not in service.

*Clarification – there is no requirement for testing the quality of the flushed product other than a visual assessment as described in 4.8.3. However, the product used for the hose soak shall be removed or downgraded and not recovered for aviation use. This distinction between product used for hose soaking and product used for flushing after the hose soaking procedure will be clarified in the next issue of JIG 1.*

## Required action for Operations that follow JIG Requirements

Operators should ensure that their procedures are in line with the following two points:

The product used for the initial soak of new vehicle hoses shall be downgraded and not recovered for aviation use.

New vehicle commissioning procedures do not require the laboratory testing of samples drawn from hoses, but flexible hoses shall be soaked and flushed before fitting to new vehicles

*Note – see section 7.2 of EI 1540 for additional guidance regarding the storage and handling of new hoses*

.