



## APLMF Survey on the test procedure Fuel Dispensers

Economy Name: \_\_\_\_\_

Name of person completing the survey: \_\_\_\_\_

Organisation responsible for the tests procedures within your economy: \_\_\_\_\_

- Please complete this survey to indicate how your economies current test procedures align with the test procedures described below.
- Only tick (✓) one box per test.
- Send your completed survey to [Secretariat@aplmf.org](mailto:Secretariat@aplmf.org) by xxxxxxxx

### Survey

Test Name	Procedures Description	Fully aligns	Partially aligns	Does not align
<b>VISUAL INSPECTION</b>	<ul style="list-style-type: none"> <li>● Visually inspect the fuel dispenser for compliance with its certificate(s) of approval</li> <li>● Inspect the fuel dispenser for compliance with any relevant regulations/environmental factors/mode of use.</li> </ul>			
<b>CHECKING FACILITY FOR ELECTRONIC INDICATORS</b>	Visually check the entire electronic display by: <ul style="list-style-type: none"> <li>● displaying all the elements;</li> <li>● blanking all the elements; and</li> <li>● displaying zeros.</li> </ul> <b>This test can be carried out in conjunction with the test for zero setting using an electronic reset mechanism</b>			
<b>ZERO SETTING FOR MECHANICAL RESET MECHANISM</b>	<ul style="list-style-type: none"> <li>● Determine whether zero setting is mechanical or electronic and conduct the appropriate test.</li> <li>● Remove the delivery nozzle from its hang-up position.</li> <li>● If a previous sale remains on the indicator move the starting lever to the ON position and ensure that the pump motor does not start or the dispenser is not activated. If the pump motor does start or the dispenser is activated then the interlock mechanism is faulty.</li> <li>● Reset the indicator/s to zero and check that the volume indicator/s is/are zero within 0.5 <math>E_{min}</math> and the price indicator/s is/are zero within <math>E_{min}</math> unit price 0.5.</li> <li>● Move the starting lever slowly and gently towards the ON position until the motor starts (or the dispenser is activated) and then slowly and gently towards the</li> </ul>			

<p><b>FOR ELECTRONIC RESET MECHANISM</b></p>	<p>OFF position until the motor stops (or the dispenser is deactivated).</p> <ul style="list-style-type: none"> <li>• Move the starting lever slowly and gently towards the ON position and check that the interlock has engaged and prevents the motor from starting or being activated.</li> <li>• Return the starting lever to the OFF position.</li> <li>• Remove the nozzle from its hang-up position and ensure that the display test is performed and the price and volume displays are on zero before any delivery of product is possible.</li> <li>• Carefully return the nozzle to its hang up position and ensure that when the nozzle is then removed no further deliveries are possible without the segment test being initiated and the indications returning to zero.</li> </ul>			
<p><b>PRICE COMPUTING</b></p>	<ul style="list-style-type: none"> <li>• Reset the dispenser to zero.</li> <li>• Make a delivery of a convenient volume.</li> <li>• Calculate the total price (rounded to two decimal places) from the unit price and volume indicated.</li> <li>• Compare this calculated price with all price displays.</li> </ul>			
<p><b>NOZZLE CUT-OFF</b></p>	<ul style="list-style-type: none"> <li>• Where the hose is fitted with an automatic cut-off nozzle, make a delivery at normal flow rate</li> <li>• Allow the sensing port of the nozzle to come in contact with liquid or froth.</li> <li>• Ensure the nozzle cuts off.</li> <li>• Repeat above steps twice more.</li> </ul>			
<p><b>INTERLOCK</b></p> <p><b>HOSES SHARING A COMMON INDICATOR</b></p> <p><b>HOSES SHARING A COMMON PUMPING UNIT</b></p>	<ul style="list-style-type: none"> <li>• Determine whether the hoses have a common indicator or whether they share a pumping unit, and conduct the appropriate test.</li> <li>• Select and authorise any hose that shares a common indicator with the hose(s) being tested.</li> <li>• Check that the price and volume indications for the hose selected reset to zero, and for dispensers: <ul style="list-style-type: none"> <li>(a) <b>with</b> separate unit price display: the unit price display for the type of fuel selected is transferred to the main indication;</li> <li>(b) <b>without</b> separate unit price display: the unit price display for the hose selected is displayed and all other unit price displays disappear until the delivery has been completed.</li> </ul> </li> <li>• Check that all other hoses sharing the same indicator are disabled by removing the other nozzles from their hang up position and confirming that they do not authorise.</li> <li>• Select and authorise any hose that shares the common pumping unit with the hose being tested.</li> <li>• While the pumping unit is operating, attempt to make a delivery from the hose being tested without allowing the dispenser to be actuated where it will initiate the zero setting sequence.</li> <li>• Check that it is not possible to make a delivery from the hose being tested.</li> </ul>			

<p><b>PRE-SET INDICATIONS</b></p>	<ul style="list-style-type: none"> <li>• Reset the dispenser to zero.</li> <li>• Enter a suitable pre-set value using the pre-set facility. Make sure the pre-set amount appears on the display.</li> <li>• Commence a delivery into the container with the nozzle fully open allowing the pre-set facility to slow down and complete the delivery automatically.</li> <li>• Check that the price/volume indication on the display corresponds to the pre-set amount and for self-serve remains on the display or is stored in memory until the transaction is finalised.</li> </ul>			
<p><b>MAXIMUM FLOW RATE</b></p> <p><b>HOSES SHARING A COMMON PUMPING UNIT</b> Only performed at initial verification, or when any site changes occur.</p>	<ul style="list-style-type: none"> <li>• For all hoses commence and time a delivery at the maximum achievable flow rate.</li> <li>• Stop the delivery after at least 10 seconds.</li> <li>• Note the indication on the dispenser and calculate the flow rate.</li> <li>• Select and authorise a number of hoses connected to the same pumping unit.</li> <li>• With all hoses operating at the maximum achievable flow rate, time the delivery for one of the hoses.</li> <li>• Stop the delivery after at least 10 s and calculate the flow rate.</li> </ul>			
<p><b>ACCURACY</b></p>	<ul style="list-style-type: none"> <li>• Condition the standard volume measure</li> <li>• Make a delivery at maximum achievable flow rate. Record the volume indicated by the fuel dispenser (<math>V_{FD}</math>) and the volume indicated by the reference standard measure (<math>V_{REF}</math>).</li> <li>• Calculate and record the relative error (of indication) (<math>E_{FD}</math>).</li> <li>• Repeat the steps above twice more.</li> <li>• Make one more delivery at minimum flow rate. Record the volume indicated by the fuel dispenser (<math>V_{FD}</math>) and the volume indicated by the reference standard measure (<math>V_{REF}</math>).</li> <li>• Calculate and record the relative error (of indication) (<math>E_{FD}</math>).</li> </ul>			
<p><b>ACCURACY OF PRE-SET</b></p>	<ul style="list-style-type: none"> <li>• Condition the standard volume measure</li> <li>• Enter and record a suitable pre-set value using the pre-set facility. This pre-set value should deliver close to the value of the reference standard measure being used.</li> <li>• Make a delivery at maximum achievable flow rate until the delivery stops. Record the volume indicated by the fuel dispenser (<math>V_{FD}</math>) and the volume indicated by the reference standard measure (<math>V_{REF}</math>).</li> <li>• Calculate and record the relative error (of indication) (<math>E_{FD}</math>).</li> </ul>			
<p><b>GAS ELIMINATION</b></p>	<ul style="list-style-type: none"> <li>• For systems fitted with a gas elimination device, calculate and record the average error (<math>E_{AV}</math>) of the three runs at maximum achievable flow rate recorded during the accuracy test</li> <li>• Condition the standard volume measure.</li> <li>• If sealed, remove seal from the test valve.</li> <li>• Commence a delivery at the maximum achievable flow rate. During the delivery slowly open the air/gas</li> </ul>			



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