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<b>Volumetric Measuring Devices</b>	Issued: 2004-03-01	Revision Number: 1	

## PERFORMANCE - FAST FLOW TEST

### APPLICATION

This test applies to any metering system.

**NOTE:** For liquefied petroleum gases, consult also Part 4, STP-26 - Procedure for Testing Liquified Gas Meters using a Vapour Displacement Prover.

### PURPOSE

This test determines the accuracy of the device at its fastest flow rate and whether the metering system is capable of use beyond the approved maximum flow rate of the meter.

**LEGISLATIVE REFERENCES:** R.262, R.265, R.266, R.267, R.268, R.269.

### PROCEDURE

Make sure the device is set in Gross mode, if applicable.

Establish the flow rate during the standard wet / drain procedure by fully opening the nozzle, quick shut-off, or other control valve downstream of the meter under test. Consult STP-21.

Operate the meter steadily at the fast speed for as long as possible while filling the test measure or the prover. A minimum of starts and stops of the product flow during accuracy tests ensures that outside influence factors are kept to a minimum.

*Revised May, 2005*

**NOTE 1:** The accuracy test must be conducted at a flow rate that does not exceed the meter maximum approved flow rate.

**NOTE 2:** On metering systems with more than one outlet downstream of the meter, this test must be conducted on the outlet which offers the potential for the highest flow rate. For truck mounted metering systems with a hose reel and a quick pump off, the quick pump off is considered the correct outlet to conduct this test through.

Where possible, run the test without stopping until the liquid level is in the readable portion of the prover neck, then calculate the error from the indicated volume as in the example below:

prover volume (after temperature shell correction) = 499.1 litres  
meter registration = 498.7 litres

Meter (registration) error =  $((498.7 - 499.1) / 499.1) \times 100 = -0.08\%$  (under registration)

Record the results. This result will be needed to determine whether a repeatability tests is warranted.

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### **INTERPRETATION OF RESULTS**

Where the fastest possible flow rate is higher than the approved capacity of the meter, the device must not be verified until suitable flow control equipment is installed to ensure that the device cannot be operated beyond its rated capacity.

All results must be within applicable tolerances.

### **REVISION 1**

Note 2 under Procedure was added to clarify which outlet this test should be through on systems with more than one outlet.