



Information

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Limits of error for refuellers and retail motor fuel dispensers

Effective April 1st, 2011 the limits of error (LOE) defined in Section 265 of the *Weights and Measures Regulations* will apply to all dispensers and refuellers used in the retail sale of motor fuel. Refuellers are defined as measuring devices capable of delivering fuel to vehicle tanks at over 90 litres per minute (LPM), but less than 250 LPM. Dispensers are defined as measuring devices not capable of delivering fuel at rates greater than 90 LPM.

There has been confusion regarding whether the LOEs from Section 265 or those found in Section 266 should be applied to refuellers. This confusion stemmed from the size of the deliveries, which are often larger than the 180 litres as noted in Section 266 as well as the design and the nature of the meter used. Typically, the meters in refuellers are the same as small bulk meters except they are installed in a cabinet and approved with all the applicable interlocks and accessories, required of dispensers.

As shown in the table below, the LOEs from Section 265 are dependant on the size of the known test quantity. For meters with a flow rate over 90 LPM, the smallest known test quantity should be equal to at least one minutes flow at the maximum operating rate. Under Section 266, the smallest known test quantity allowed was 225 litres, but 250 litre provers were most commonly used. Dispensers delivering less than 90 LPM may continue to be calibrated and inspected using 20 litres measures. Details on appropriate Local Standards can be found in Volumetric bulletin V-24.

Item	Column I - known test quantity	Column II - acceptance limits of error	Column III - in-service limits of error
	litres	millilitres	millilitres
1	0.10	2.0	4.0
2	0.20	2.5	5.0
3	0.50	6.0	12.0
4	1.0	10.0	20.0
5	2.0	15.0	30.0
6	5.0	30.0	60.0
7	10.0	40.0	80.0
8	20.0	50.0	100.0
9	50.0	100.0	200.0
10	100.0	220.0	440.0
11	250 or more	3/16% of know test quantity	3/8% of known test quantity