

Weights and Measures Bulletin No. 1001 Version 2.0 (June 2011)

**Control of Modular Equipment during the MID Transition
Period and Beyond**

This document is a substantial revision of the guidance which was first issued in July 2008.

This original guidance was drawn up with the intention of addressing issues associated with the normal, progressive development of existing liquid fuel dispensing sites in the UK, during and after the transition period identified in the Measuring Instruments (Liquid Fuel and Lubricants) Regulations 2006.

It was designed to address the situation where an existing installation of UK approved dispensers and UK Point of Sale (POS) devices with a stored transaction function, required modification to include one or more EC approved dispensers as replacements, due to accident damage or failure, or to permit additional dispensers to be installed.

These (revised) guidelines seek to provide enhanced information regarding the legal framework under which these installations may continue to be in use for trade.

It was not the intention that the original guidance should be used to address situations where all of the dispensers were replaced, but the existing POS device was to be retained, as part of a forecourt redevelopment.

The original guidance also addressed other possible circumstances in respect of certain identified combinations of nationally approved and MID approved dispensers and associated equipment.

It is now necessary to update WM 1001 in the light of experience, in order to clarify situations that are currently proposed, and to address questions about the legality of certain forecourt installations after 30th October 2016.

It is important to note that whilst the date of 30th October 2016 is the latest possible expiry date of national type examination certificates, most national type examination certificates will expire BEFORE 30th October 2016.

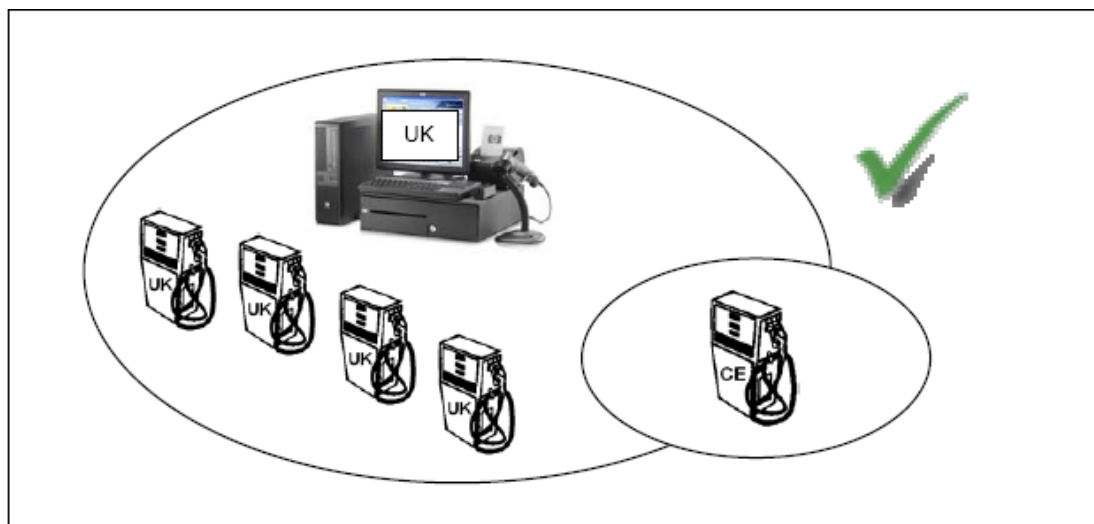
This revision seeks to address both current and future possibilities. Installations that have already been completed and verified in accordance with previous versions of WM1001 can remain but any further addition or modification to such sites will be required to comply with this latest version.

It is the opinion of the National Measurement Office that a normal motor fuel forecourt is comprised of a network of measuring systems incorporating a meter (i.e. fuel dispenser). Such a network is capable of being made up of a number of individual fuel dispensers, a POS device and possibly outside payment terminals, OPT, (the components of a network).

It is a requirement of the various applicable pieces of legislation that the network is subject to control and the following examples provide guidance in this regard.

1. The network is made up of UK approved dispensers and UK POS devices.

The operator wishes to modify the network to include one or more EC approved dispensers as replacements or additional dispensers



A network of fuel dispensers which are currently approved, installed, passed as fit for use for trade and already in use on a UK forecourt is to be modified by having one or more dispensers replaced - or added.

The existing national components are controlled by the Weights and Measures Act 1985 and its subordinate legislation. This includes the POS device, and any stored transaction function that it has.

The replacement, or additional units, can be dispensers which are controlled by the Measuring Instruments (Liquid Fuel and Lubricants) Regulations 2006, and they will have undergone conformity assessment procedures before being first put into use.

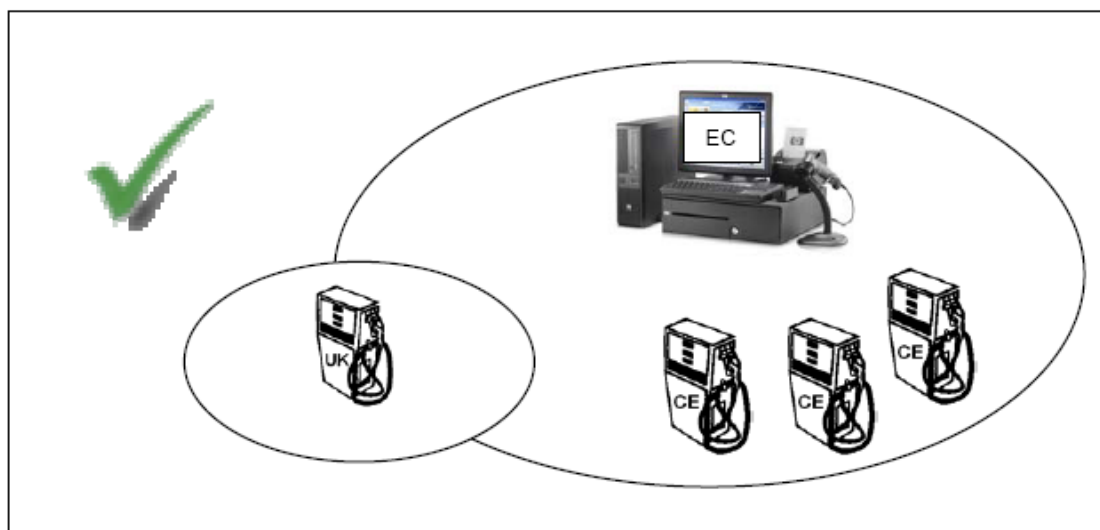
This situation is acceptable if:-

The UK type examination certificate for the specific network in question has been amended to allow the incorporation of an EC approved dispenser, by referring to this as part of the UK national approval. This should be a straightforward procedure, as long as functionality is compatible. For further details for specific installations please contact the type examination team at NMO.

The resultant overall network will still be under metrological control.

These conditions avoid the necessity for the replacement of a single dispenser also giving rise to the need for replacement of all other components in the network.

2. The network is made up of EC approved dispensers and POS device and at least one UK approved dispenser.



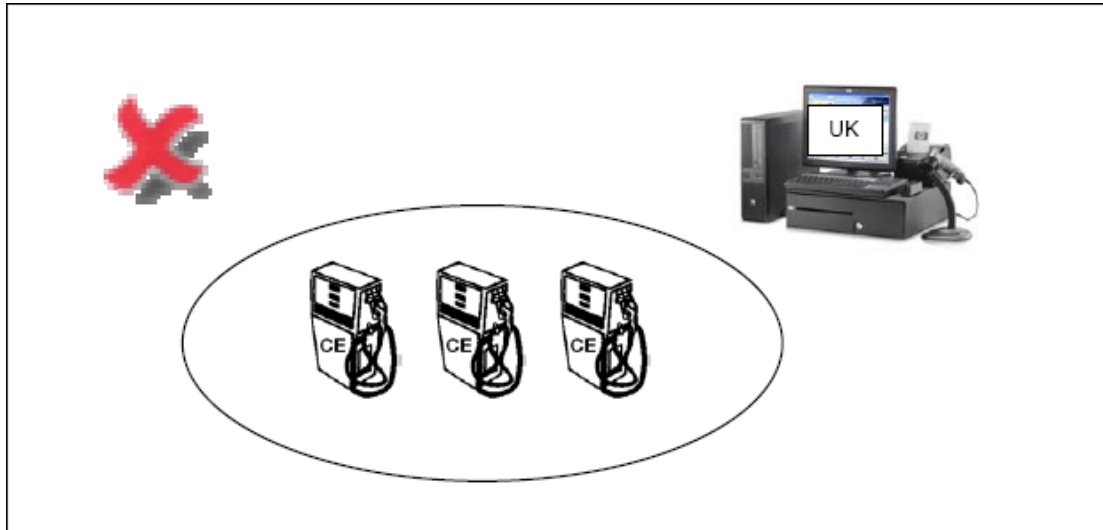
The network described in 1 above is at some further stage in the future upgraded, so that the UK approved dispenser and associated POS device is replaced by an EC dispenser and approved POS device.

The user replaces or expands the network of nationally approved fuel dispensers with one or more of the EC approved dispensers and replaces the UK approved POS device with a POS device approved for use with the EC dispenser and having a stored transaction function.

This will be acceptable, provided an amendment has been made to the particular UK national type examination certificate, to include the connection of an EC dispenser with approved MID POS having a stored transaction function. The resultant overall network will still be under metrological control. For further details for specific installations please contact the type examination team at NMO.

The situation is reversed from that described in 1 above. The EC approved dispensers and POS device are controlled by the Measuring Instruments (Liquid Fuel and Lubricants) Regulations 2006 and the individual nationally approved dispensers are controlled by the Weights and Measures Act and its subordinate legislation.

3. It is unacceptable to have a network made up of EC approved dispensers and a UK only approved POS device



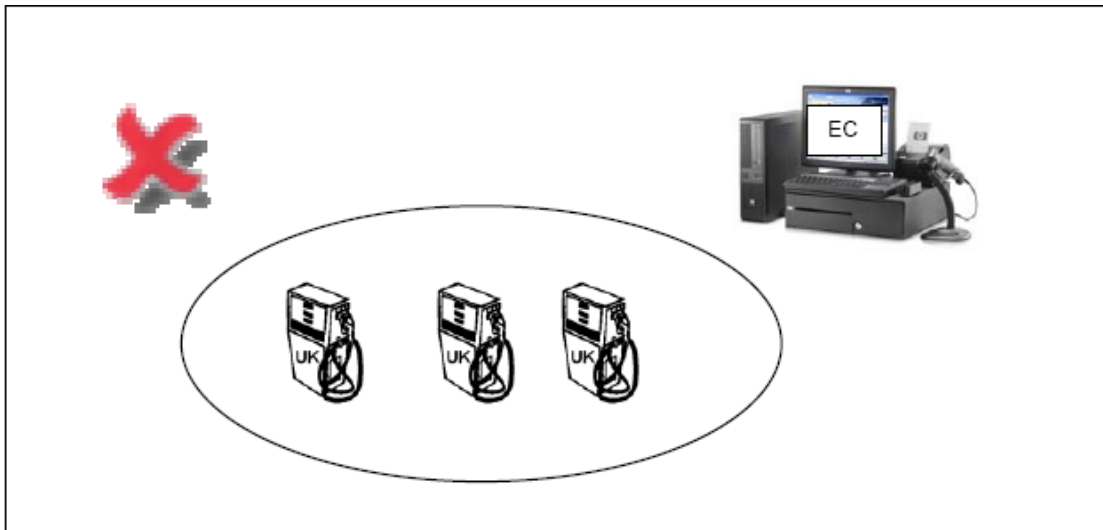
A network with all dispensers having EC approval can only be upgraded in line with an existing EC type examination certificate.

This will be the case UNLESS:-

- The POS device is CE marked (in respect of the Low voltage and EMC Directives) and has no stored transaction function
- The manufacturer obtains CE (MID) approval for the POS (a parts or evaluation certificate as listed in the type examination certificate for the dispenser) such that it may be connected to the approved MID dispenser or
- The particular network in question has a Declaration of Conformity made which is based on Unit Verification as set out in Annex G of the Measuring Instruments Directive 2004/22/EC. This will require the POS to meet the additional essential requirements of the MID.

For further additional consideration, see 5 below.

4. It is unacceptable to have a network made up of UK approved dispensers and an EC approved POS device

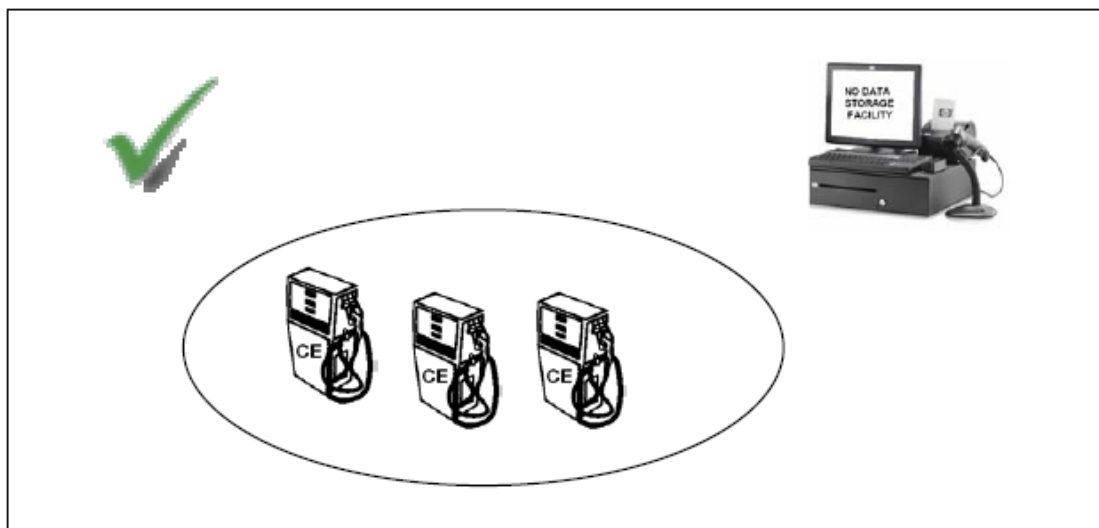


A forecourt user may wish to upgrade the POS device, in the network, to one which is EC compliant. This can only be done if the POS device remains subject to legal metrological control. An existing completely national site can only be upgraded in line with an existing UK type examination certificate.

The addition of the EC POS device will be unacceptable UNLESS:-

- An amendment is made to the particular UK type examination certificate to include the connection of the EC approved MID POS device, with a stored transaction function for the UK approved dispensers. For further details for specific installations please contact the type examination team at NMO.
- The stored transaction function is disabled (see below).

5. The use of POS devices that do not store data and dispensers that retain the primary indication until the transaction is completed.



As an overview, and further explanation of Point 3, a forecourt comprised entirely of EC approved dispensers may wish to change its normal operating procedure by disabling the stored transaction function on the POS device.

For forecourt network systems that use a POS device with the stored transaction function disabled, the POS device is not subject to conformity assessment under the Measuring Instruments (Liquid Fuel and Lubricants) Regulations 2006. Such a device may still be controlled as weighing and measuring equipment in use for trade by the Weights and Measures Act 1985 once it has been first used, and will need to accurately reflect the indication on the associated dispenser.

Disabling the stored transaction function would mean that the POS device would operate as a dumb terminal similar to a printer. A consumer would be able to dispense fuel, go into the kiosk, be presented with a price to pay and in all circumstances would be able to dispute the transaction and return to the pump to check the primary indication before completing the transaction. In the extreme, this would mean that a customer who filled up their car with fuel and then parked their car, thereby delaying payment for the fuel dispensed, would in effect prevent that dispenser from being used by another customer until they had completed their transaction.

6. The addition of Outside Payment Terminals (OPTs) to existing Networks

Outside payment terminals are designed and capable of allowing a dispenser to be used when the site is unmanned. The Weights and Measures Act and the Measuring Instruments (Liquid Fuel and Lubricants) Regulations 2006 require instruments used in such circumstances to record transactions by a durable means, and to make available on request proof of the measurement. Thus if used in this way such equipment is required to be included the system approval.

There are five possible circumstances where OPTs are installed;

- As an addition to a national approved network of fuel dispensers:
The OPT must be included in the UK type examination certificate
- As an addition to an EC approved network of fuel dispensers:
The OPT must be included in the EC type examination certificate
- As part of a new installation:
The OPT must be included in the applicable type examination certificate for the network
- As an addition to a mixed network of EC and national fuel dispensers:
The OPT must be included in the EC and/or UK type examination certificate for the dispensers in question, as appropriate.
- An OPT system that is physically integrated into the dispenser housing and capable of standalone operation:

The OPT must be type approved with the dispensers, and included in the applicable type examination certificate(s).

Where the OPT is wholly controlled by a POS device and acts as an extension of that device then approval of the OPT must detail compatibility with that particular POS device.

Document Control

Version No.	Date of change	Substantive changes
1.0	July 2008	Original document
1.1	October 2008	Point five (addition of outside payment terminals)
2.0	June 2011	Substantially revised document