



Forecourt Equipment Federation

...The leading association for equipment manufacturers and their servicing divisions, serving the UK retail petroleum market...

**Guidance to Retailers on
Weights and Measures Compliance of
Forecourt Equipment**

Revision 1.0 October 2011

The Forecourt Equipment Federation (FEF) is the representative body for equipment manufacturers, and their service divisions, serving the UK retail fuel delivery market. It provides a forum for the industry to share and exchange information on developments in the fuel delivery process and aims to be an authoritative voice on industry issues.

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In creating this document the FEF acknowledge documents referenced in the Bibliography.

Further copies in pdf format can be obtained from the FEF and its members.

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2 FOREWORD

This document provides guidance to retailers on some restrictions related to mixing old and new equipment that will affect them as the transition to the full application of the Measuring Instruments Directive (MID) (2004/22/EC) completes in 2016.

3 BIBLIOGRAPHY

The Measuring Instruments (Liquid Fuels and Lubricants) Regulations 2006 [SI 2006 No.1266].
The Measuring Equipment (Liquid Fuels and Lubricants) (Amendment) Regulations 2006 [SI 2006 No.2234].
The Measuring Instruments (Amendment) Regulations 2010 [SI 2010 No.2881].
Measuring Instruments Directive 2004/22/EC, OJEU L 135 30.04.2004
Measuring Instruments amending Directive 2009/137/EC, OJEU L 294 11.11.2009
OIML R117-1 Edition 2007 (E) International Recommendation. Dynamic measuring systems for liquids other than water. Part 1: Metrological and technical requirements
OIML R117-1 Edition 2007 (E) International Recommendation. Dynamic measuring systems for liquids other than water. Part 1: Metrological and technical requirements
OIML R117 Edition 1995 (E) International Recommendation. Measuring systems for liquids other than water.
WM1001 : Weights and Measures Bulletin No. 1001 Version 2.0 (June 2011) Control of Modular Equipment During the MID Transition Period and Beyond.

4 DEFINITIONS

MID certificate	For the purposes of this document, "MID certificate" shall mean one of the following: An EC type examination certificate to the MID for a dispenser or system, or An Evaluation Certificate or Parts Certificate for a Point of Sale system or other prime metrological component
MID certified equipment	For the purposes of this document, equipment or systems carrying one of the MID certificates as described above
Nationally Certified Equipment	Equipment having a traditional UK specific Weights and Measures certificate
Stacked sales	Where one motorist has taken fuel, and the sale information is stored in memory allowing a second motorist to start taking fuel at the dispenser before the first motorist has paid for his/her fuel. Referred to as "stored transaction function" in WM1001

5. INTRODUCTION

The UK Weights and Measures laws require that any system used for the retail sale of fuel to the public on petrol filling station forecourts must have a relevant Weights and Measures certificate. This applies to a combination of fuel dispensers, point of sale equipment, any pump controllers, and any cash acceptors or card payment terminals, either indoor or outdoor. The certificate relates to the design of the equipment, and it is usually equipment manufacturers that gain these certificates prior to selling their products into the UK.

Traditionally certificates have been issued to UK national requirements by the National Weights and Measures Laboratory (now called the National Measurement Office (NMO)). Most of the equipment installed on petrol filling stations at the time of writing falls into this category. Normally this product certification process has been transparent to filling station owners and operators.

In October 2006, the Measuring Instruments Directive (MID) was implemented into UK law. This requires manufactures to certify new designs of forecourt equipment to a new set of European rules. After October 2016, all new equipment sold must have a “MID certificate”

There are rules on mixing “nationally certified” equipment with “MID certified” equipment which will impact UK forecourts.

The Measuring Instruments Directive is drafted such that it is easier to understand when dealing with new petrol filling stations, installed with all new dispensing and payment equipment, which are all sourced from a single manufacturer.

Reality is that there are many established petrol filling stations in the UK, and that these stations ‘evolve’. If older dispensers are replaced, this does not mean that a new Point of Sale (POS) system will be installed. Or there may be requirements to add new features such as vapour recovery or temperature compensation. Also a site may have petrol/diesel dispensers, an LPG dispenser, a POS system, an indoor payment terminal, and outdoor payment terminals all from different original equipment manufacturers (OEMs).

The UK law has had to specifically handle the situation of ‘evolving’ forecourts. However this can bring complications unless OEM manufacturers obtain approval for the relevant changes to the national certified equipment. In the context of the European Directive, another problem is that some manufacturers (particularly of payment systems) will need to not only request approval changes through the MID certificate holder; but ensure that both the relevant national and MID certified equipment can be accommodated on the same site.

Trade Association efforts to change the Directive to provide greater flexibilities have had limited success.

The FEF has consulted with the National Measurement Office since 2006 to try to gain some flexibility and as pragmatic approach as possible to allow mixing of older nationally certified equipment with new MID certified equipment. Guidance was published in the form of “Weights and Measures Bulletin No. 1001 Control of Modular Equipment during the MID Transition Period and Beyond”, usually simply referred to as WM1001. Revision 2 of this document was published in June 2011.

Of course, this guidance cannot contradict the law, and as a result there are some restrictions on what equipment can be mixed. Some of the rules might seem restrictive, and on newer equipment the difference between nationally certified equipment and MID certified equipment may come down to a few labels.

6 ADVICE FOR RETAILERS

6.1 What you should consider now

Do you intend to upgrade equipment on an existing site, or to install a new site?
Consider:

- The need for new dispensers
- The need for a new Point of Sale system
- Upgrading dispensers to add temperature compensation
- Card Reader additions, either standalone or integrated into dispensers
- Upgrading dispensers to add vapour recovery
- Adding any features that may require software changes

6.2 If you answered “yes” to 6.1, then this is what you should find out now

- Are the current dispensers nationally certified or MID certified? A guide on how to identify this is given in Annex B
- Is the POS part of an MID approved system? See Annex B
- Is any Outdoor Payment Terminal (OPT) part of an MID approved system? See Annex B
- Can any planned upgrades be performed within the existing certification? Many existing certificates might not include options for temperature compensation, adding vapour recovery, or may limit equipment to using a specific version of software. Contact the OEM for confirmation
- Can your dispenser be upgraded to be MID certified? Contact the OEM for confirmation
- Can your POS system be upgraded to MID certified? Contact the OEM for confirmation
- Can your OPT system be upgraded to MID certified? Contact the OEM for confirmation

6.3 What you should do now

Look at the examples in Section 7 and understand which of these options might relate to your site in the future. Consider which items could be a problem.

7 EXAMPLES

Many sites in the UK still use equipment which is covered by a traditional UK specific Weights and Measures certificate. In recent years, some manufacturers have used WM1001 guidance to place MID certified dispensers on the forecourt; but have left one dispenser as being nationally certified to allow the continued use of a POS that has a national certificate; but no MID certificate.

Hence the examples below only consider these two types of site.

Any sites which entirely comprise MID certified equipment will not suffer from the restrictions being discussed, and are the ideal way forward.

	Example	Solutions		Comments	
		Pre October 2016	Post October 2016		
Existing Petrol Filling Station with all equipment nationally certified	Site owner wants to buy new POS	Buy a national certified POS; but opportunities for future upgrades may be limited			
		Buy a MID POS	Buy a MID POS	National dispenser certificate needs to have been amended (before Oct 2016) to support this	
	Site owner wants to buy new dispensers	Buy national certified dispensers; but opportunities for future upgrading may be limited			
		Buy MID dispensers and purchase a MID POS	Buy MID dispensers and purchase a MID POS		
		Buy mainly MID dispensers and at least one nationally certified dispenser	Buy mainly MID dispensers but leave at least one existing nationally certified dispenser	National dispenser certificate needs to have been amended (before Oct 2016) to support this	
		Buy MID dispensers and upgrade certification of POS to MID	Buy MID dispensers and upgrade certification of POS to MID	Limited number situations this is possible	
		Buy all MID dispensers and turn off sales stacking	Buy all MID dispensers and turn off sales stacking	Unlikely to be practical on many sites. Not an option for unmanned sites.	
	Site owner wants to perform one of the following when it is not covered by the certificate number listed on the dispenser: Add Temperature Compensation, Add Payment Terminal, Add Vapour Recovery, Software Upgrade, Add Video display, Repair which replaces obsolete components	Ask OEM to modify existing national certificate to allow the desired option (there will be restrictions)			
		Upgrade equipment to MID prior to adding the desired option if technically feasible	Upgrade equipment to MID prior to adding the desired option if technically feasible	Limited number situations this is possible	
	Accident Damage dispenser	Buy another nationally certified dispenser			
		Replace with <u>second hand</u> nationally certified dispenser	Replace with <u>second hand</u> nationally certified dispenser		
		Buy a MID dispenser as long as there is one nationally certified dispenser remaining on site	Buy a MID dispenser as long as there is one nationally certified dispenser remaining on site	National dispenser certificate needs to have been amended (before Oct 2016) to support this	

	Example	Solutions		Comments
		Pre October 2016	Post October 2016	
Existing Forecourt with one nationally certified dispenser, others MID. National certified POS	Site owner wants to buy new POS	Buy nationally certified POS; but opportunities for upgrading may be limited		Not recommended
		Buy MID POS	Buy MID POS	National dispenser certificate needs to have been amended (before Oct 2016) to support this
		Buy a MID POS and replace nationally certified dispenser with MID dispenser, or upgrade national dispenser to MID	Buy a MID POS and replace nationally certified dispenser with MID dispenser, or upgrade national dispenser to MID	Limited number of situations that an upgrade will be possible
	Site owner wants to buy new dispensers	Buy national certified dispensers; but opportunities for future upgrading may be limited		
		Buy MID dispensers and purchase a MID POS	Buy MID dispensers and purchase a MID POS	
		Buy mainly MID dispensers and at least one nationally certified dispenser	Buy MID dispensers but leave at least one existing nationally certified dispenser	National dispenser certificate needs to have been amended (before Oct 2016) to support this
		Buy MID dispensers and upgrade certification of POS to MID	Buy MID dispensers and upgrade certification of POS to MID	Limited number situations this is possible
		Buy all MID dispensers and turn off sales stacking	Buy all MID dispensers and turn off sales stacking	Unlikely to be practical on many sites. Not an option for unmanned sites.

Existing Forecourt with one nationally certified dispenser, others MID. National certified POS (cont'd)	Site owner wants to perform one of the following when it is not covered by the national certificate number listed on the national dispenser:	Ask OEM to modify existing national certificate to allow the desired option (there will be restrictions)		Note : Assuming the option is on, or is easily added to the MID dispensers
	Add Temperature Compensation, Add Payment Terminal, Add Vapour Recovery, Software Upgrade, Add Video display, Repair which replaces obsolete components	Upgrade the nationally certified dispenser and the POS to MID	Upgrade the nationally certified dispenser and the POS to MID	Limited number situations this is possible
		Upgrade the nationally certified dispenser and buy a new MID POS	Upgrade the nationally certified dispenser and buy a new MID POS	Limited number situations this is possible
		Replace nationally certified dispenser with MID dispenser and upgrade the POS to MID	Replace nationally certified dispenser with MID dispenser and upgrade the POS to MID	Limited number situations this is possible
		Replace nationally certified dispenser with MID dispenser and buy a new MID POS	Replace nationally certified dispenser with MID dispenser and buy a new MID POS	
	Accident Damage dispenser (Nationally certified dispenser damaged beyond repair)	Buy nationally certified dispenser		
		Replace with 2nd hand nationally certified dispenser	Replace with 2nd hand nationally approved dispenser	
		Replace nationally certified dispenser with MID dispenser and upgrade the POS to MID	Replace nationally certified dispenser with MID dispenser and upgrade the POS to MID	Limited number situations this is possible
		Replace nationally certified dispenser with MID dispenser and buy a new MID POS	Replace nationally certified dispenser with MID dispenser and buy a new MID POS	
Buy MID dispenser and turn off sales stacking		Buy MID dispenser and turn off sales stacking	Unlikely to be practical on many sites. Not an option for unmanned sites.	

Annex A: Guide for OEMs

In some circumstances it may be feasible to upgrade existing installed equipment from being nationally certified to being MID certified, for example using MID Modules B+D or Modules B+F, or Module G. This has been confirmed with NMO.

Clearly this will not always be technically feasible with older equipment.

The approach requires the manufacturer to issue a Declaration of Conformity of the equipment to the MID. Manufacturers should think very carefully about installed, used, equipment that they can do this for.

Exclusions are likely to include equipment which has been modified or repaired by non-OEM companies, or equipment that was not manufactured at locations having the quality controls and records associated with the manufacture of MID compliant equipment.

Inclusions are likely to be restricted to relatively new equipment which is technically identical to MID certified equipment being built at the same period; but where the marking and labelling was performed in accordance with national certificates.

Annex B : Guide on identifying existing equipment certification

Check any nameplates or type plates on the dispensers and or Point of Sale.

For MID certified dispensers:

On newer dispensers, the nameplate will carry a number of “CE” and “M” marks, one per hose. These “CE” and “M” marks are often placed in rectangular boxes down the side of the nameplate

There may be specific wording that states “MID”

For nationally certified dispensers:

There is either a single CE mark without an “M”, or no “CE” mark. The Weights & Measures certificate number may typically be of the form 1xxx/xx or 2xxx/xx.

For MID certified POS systems, there should be a nameplate giving a certificate number.

For nationally certified POS systems, there is no Weights and Measures nameplate.

Outdoor payment terminals are usually associated with the certificate for the POS system, and therefore it is the determination of whether the POS has a national certificate or an MID certificate that determines the classification of the payment terminal.