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8th December 2011

EIM POSITION PAPER ON CROSS ACCEPTANCE OF ON-BOARD ENERGY MEASURING SYSTEMS (EMS)

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EIM Position Paper on
Cross Acceptance of on-board Energy Measuring Systems

Introduction

This position paper focuses on the cross-acceptance of the metrological performance of on-board Energy Measuring Systems (EMS). It follows the last EIM Position Paper on Energy Meters on Electric Trains (2010) which states that:

"*Data from energy meters on trains will be of benefit to European railways, as it can be used for energy reduction management and to enable accurate billing. European regulation is needed for cross acceptance of the metrological verification and the methods to guaranty the metrological performance. If an electric unit is fitted with an energy measuring system, it should comply with the requirements of a European standard. The location function shall be implemented. The Technical Specifications on Interoperability for Locomotives and Passenger Carriages and Energy subsystems should mandate the use of data coming from standard meters for billing where fitted. The data transmission for energy billing should conform to the UIC-leaflet 930.*

The last Position Paper didn't present a possible method on how cross acceptance of the metrological re-verification could get realised. This Position Paper presents a possible procedure.

EIM Position
Cross Acceptance of on-board Energy Measuring Systems

A precondition to settlement and billing of energy costs for international running trains is cross acceptance of metrological certification.

The EC should take initiative towards MS to facilitate and promote cross acceptance of metrological certification and re-verification of on-board Energy Measuring Systems (EMS) and of the cross border operation of vehicles with metrological devices on-board. Suitable requirements for these metrological assessments can be found in the CR LOC&PAS TSI.

Initial acceptance

Devices containing the metrological functions of EMS as identified in CR LOC&PAS TSI shall be assessed by a Notified Body competent in metrological assessment. Once assessed the devices shall receive the appropriate metrological marking.

When the EMS containing approved metrological devices is installed on the vehicle, it shall be submitted to a Conformity Assessment process performed by a Notified Body for the railway sector. This Conformity Assessment will cover the non-metrological aspects of the CR LOC&PAS TSI requirements and will result in approval of the EMS for cross-border operation and energy settlement internationally.

Placing into service and continued acceptance

In order to ensure cross-border operation it will be necessary to ensure the metrological functions are kept within the limits of their metrological performance to be able to remain in service.

Railway sector already has a scheme to ensure subsystems can remain operational and this can easily be adapted to include metrological control.

This could be best achieved by ensuring the vehicles Maintenance Plan include the necessary requirements. When NSA considers the Maintenance Plan he can take advice from the MS entity responsible for legal metrological control. Once this Maintenance Plan is approved, it shall ensure cross-border operations of the vehicle without further approvals or examinations.

Recommendation

The EC should actively promote this approach to metrological certification and control to be adopted across all MS.