Railway vehicles maintenance system documentation

An appropriately designed and thoroughly implemented railway vehicles maintenance process constitutes one of the key factors influencing the safety of the rail sector. Requirements in this area have been developed over an extensive period of time individually by particular countries. However, creating a uniform European railway area has necessitated the harmonisation of the approach to the railway vehicles maintenance process in the whole European Union. The process primarily included the rules of freight wagon maintenance; however, in the nearest future it will probably be extended to cover other types of vehicles.

The major legal acts regulating the railway vehicles maintenance process at the EU level are:


In Poland the issue of railway vehicles maintenance is regulated by the provisions of the Rail Transport Act and the Regulation of the Minister of Infrastructure of 12 October 2005 on the general conditions of railway vehicle operation (Journal of Laws No 212, item 1771) amended by the Regulation of the Minister of Transport of 7 November 2007 (Journal of Laws No 212, item 1567) and the Regulation of the Minister of Infrastructure and Development of 10 December 2014 (Journal of Laws of 2015, item 25).

In accordance with the regulations currently in force, each railway vehicle operated on a public rail network must belong to an entity in charge of maintenance (ECM). The duty was introduced by way of Directive 2008/110/EC. The role of the ECM can be performed by any competent entity able to manage the maintenance process of specific vehicles in a systematic way. The entity is allocated to a specific vehicle or group of vehicles in the National Vehicle Register conducted by the President of UTK.

The EU legislative bodies introduced the term of entity in charge of maintenance, to facilitate a transparent allocation of responsibility for the maintenance of a specific vehicle, which so far has often been dispersed between various categories of entities operating in the rail transport
sector, i.a. the railway undertaking, keeper or the company carrying out repairs.

The entity in charge of maintenance is obliged to ensure that the vehicles for which it is responsible are able to move safely within the railway network. The instrument enabling the achievement of this goal is the Maintenance Management System, i.e. a set of procedures and instructions to be implemented by the entity in order to minimise the risks associated with maintenance activities.

Entities in charge of the maintenance of freight wagons must undergo the certification process in line with Commission Regulation (EU) No 445/2011. The certification of other types of entities in charge of maintenance, i.e. those dealing with the maintenance of passenger carriages, locomotives and traction units, is not currently required.

Along with the requirement of providing an entity in charge of maintenance for each railway vehicle operated within a public rail network, all vehicles (including the ones operated outside the public rail network, e.g. only on side-tracks), according to national legislation, must have the so-called maintenance system documentation (MSD). The documentation contains information, i.a., on the vehicle, the structure of the repair and maintenance cycle, the description of maintenance work carried out at each maintenance level, the measured parameters, etc. Furthermore, it specifies the requirements referring to workshop equipment and the competence of staff carrying out maintenance tasks. The entities are obliged to follow the rules specified in the documentation throughout the maintenance process.

The maintenance system documentation for vehicles other than freight wagons which have an assigned entity in charge of maintenance is approved by the President of UTK.

Separate solutions are in place for vehicles operated outside the public railway network, e.g. on side-tracks or narrow-gauge tracks. These vehicles are not subject to registration in the National Vehicle Register, and consequently do not have an assigned entity in charge of maintenance. Thus, for these vehicles it is obligatory to obtain the maintenance-system documentation approved by the President of UTK and to perform the maintenance process in line with the requirements stipulated therein.