CONTEMPARARY STATE OF RAILWAY SAFETY IN LITHUANIA

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LITHUANIA

Key words: safety, railway, safety systems, equipment

Abstract: Safety of the railway is in the first place. Therefore a lot of work is being
developed and implemented for better systems, which reduce the number of railway accidents.
In this report will be introduced safety systems in Lithuania, their interfaces and how they
work.

1. INTRODUCTION
At all times the safety of the railway is in the first place. Therefore placed a lot of work is
being developed and implemented better system, which reduces the number of unhappy
events. In Lithuania there are a lot of safety systems which help to regulate railway traffic,
and make it safe. Briefly about railways in Lithuania: The majority (80%) of signaling
equipment is out of date and the model does not meet EU standards. 70% of alarm devices
(e.g. centralization station and road blocks) operating hours will end before 2015. The current
alarm system has been designed for trains with speeds up to 120 km / h. In the aftermath of
the modernization process, some parts have been recently, or have already completed
modernization.

2. THE SAFETY SYSTEMS IN LITHUANIA
There is a book which lists all the rules of the railway, and in the raiwlay every working
person need to know. The book is train trafic rule - short description: technical regulations for
the use of railway sets of 1520 mm gauge performance, the main buildings, equipment and
stock dimensions, requirements, maintenance standards and traffic organization and signaling
principles. Exact Enforcement ensures rhythmic railway work, safe movement of trains and
safety. There are also a lot of systems which are installed. MPC – Microprocessor
centralization - this system have been updated in stations. This technology works reliably and
is installed in most modern railway. Microprocessor centralization works as a computer
system. System data obtained from the equipment, enabled the centralization, processed and
sent to appropriate facilities where teams met. Result of this process depends on: Input data;
Logic equations; Systems management teams; Data and information management. Ebilock
950 - The control and monitoring system, local or remote, based on - a graphical system.
Interface with a centralized traffic management, road blocks and other systems of
centralization. Centralized system performs centralized management, automatic road blocks,
field equipment interface and remote information management functions. SIMIS-IS – system
job is to form of draw routes on the screen. Tables are provided for each route of all parts of
the interface modules and the observed plant data, mainly switches, signals and road play
devices, indications. ALS - Locomotives install an alarm automatic braking equipment (hitch-
hiking) improve traffic conditions and provide greater security. Locomotive alarms crossings
and stations transmit signals views locomotive driver. AUTOSTOP automatically stop the
train at a signal at, if the driver fails to take measures to stop the train. Track circuits - track
circuits is for continuous control of plain track or show if station roads are busy or it is free,
rail integrity, and to ensure the continued running train link with an line interlocking signals
and prevent spit after switching the train run on stock and making the busy road. Also the
track circuit would miss the return traction current roads with electric traction. GSMR –
connection is very important in railway transport, for safety and smooth functioning.
Connection is very important in railway transport, safety and smooth functioning. Lithuania
has already been installed and started to use modern communication system GSM-R, of this
entire communications network sideways 1779.3 km..

3. CONCLUSIONS
Supply communications and signaling and other systems of the railway transport is very
important. In these systems transport system become slow and insecure. So, it is very
important to all system development and modernization. All states should invest to safety
systems because it is the main thing in railways.

4. SUMMARY
In this report we are talking about security in Lithuanian railways. There are a lot of
systems and there are written books about safety rules in Lithuania railways that people to
know and respect them. Here are written the main safety systems descriptions in Lithuania. In
the descriptions are who is it for, as used and what function it performs.

REFERENCE
[2] Railway station automation systems. Lithuania

АКТУАЛНО СЪСТОЯНИЕ НА БЕЗОПАСНОСТТА НА
ЖЕЛЕЗОПЪТНИЯ ТРАНСПОРТ В ЛИТВА

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ЛИТВА

Ключови думи: безопасност, железнодътън транспорт, системи за безопасност,
съоръжения

Резюме: Безопасността на железнодътния транспорт е на първо място. Следователно
е свършена много работа за разработването и реализирането на по-добри системи, които
намаляват броя на железнодътните инциденти. В доклада ще се представят системите за
безопасност в Литва, техния интерфейс и как работят.