

## 6 SAFETY RECOMMENDATIONS

### 6.1 New recommendations

The Safety Investigation Authority recommends that the Finnish Transport Safety Agency (Trafi) ensure the implementation of the following five recommendations.

#### 6.1.1 The use of automation functions

Around 80% of the wrong routings were created manually. The use of train number automation would have been possible in over half of these cases. The manual creation of routes is prone to error.

*The Finnish Transport Agency should, in collaboration with Finrail Oy, ensure that, as a general rule, routes are created by the automated system. [2016-S11]*

Traffic control instructions and training should pay attention to the features and usage possibilities of the automated systems. The use of automation must be promoted through instructions and supervision. The further development of traffic control systems must take into consideration the intercompatibility of automated systems and interlockings as the speed of trains increases.

#### 6.1.2 Uniform reporting and classification of deviations

Not all wrong routings are reported or their data is not collected, although this would be possible through IT means. No clear and uniform system exists for reporting on wrong routings that covers all parties: the rail traffic operators, the owner of the railway network and the safety authority. It is not possible to gain an overview of the issue.

*The Finnish Transport Safety Agency (Trafi) is obliged to create a uniform system for the reporting and classifying of deviations; one covering all actors. [2016-S12]*

Finrail Oy classifies some wrong routings as quality deviations. However, a wrong routing classified as a quality deviation may cause a dangerous situation for passengers, for example, if a passenger train is directed onto a track with no platform. The collection of both safety and quality deviations would result in a better overview of the issue.

#### 6.1.3 Management of the adoption of regulations and instructions

The rapid deregulation of national regulations and references to EU regulations has lately created a situation, where detailed and practical regulations no longer exist. National instructions have been finished too late considering the adoption of the regulations, resulting in several postponements of their adoption. The time traffic controllers have to familiarise themselves with the instructions has been short. Regulations and instructions already rescinded have also been left in use.

*The Finnish Transport Agency (Trafi) must ensure that the instructions directly affecting the work of traffic controllers are kept up to date and that they are not put into use without sufficient orientation of personnel. [2016-S13]*

#### 6.1.4 System changes and their deployment management

Continuous changes and the deployment of incomplete systems increase the workload of the traffic controllers.

*The Finnish Transport Agency must ensure that new systems or modifications to existing systems are not introduced incomplete, or without sufficient orientation of the staff. [2016-S14]*

When systems are deployed, the traffic controllers should have a clear idea of the development stage of the system in order to avoid frustration and in order to maintain trust in the systems. If the systems are deployed while still under development, and they are developed based on user feedback, this must be clearly communicated and justified to the users.

#### 6.1.5 Development of traffic control systems

Traffic controllers feel that they have insufficient say in the creation of new traffic control systems and the development of old ones. Defects that are the responsibility of the Finnish Transport Agency (such as defects in technical equipment) are corrected quickly, but deficiencies and development needs are not necessarily reacted to at all.

*When procuring traffic control systems, the Finnish Transport Agency must take steps to ensure that any development needs emerging in a system can be implemented smoothly during the system's lifespan. [2016-S15]*

Feedback from traffic controllers in particular must be taken into consideration in the identification of development needs and the implementation of improvements.

#### 6.2 Other observations and proposals

- The instructions for cancelling a departure signal on tracks controlled via radio signals, issued as a voice communication based on a flash message, are difficult to find in the system's extensive operating instructions. A good place to describe the notification method could be in the *Viestintä valtion rataverkolla* ('Communication on the state-owned rail network') instructions.
- Traffic controllers and trackwork supervisors have different methods for checking the position of a switch. When commissioning a switch for traffic control, clear written instructions positions should be drafted for the checking of the various signals.
- In the case of international traffic at border crossing points, it should be possible to relay a message via the engine radio to stop the train immediately. Similarly, a shared, hand signal should be available.