**HU-6114**

**2019-0235-5 Miskolc-Repülőtér (Railway incident / Signal passed at danger)**

### Overview of the accident

On 1 March 2019, 14:38, at the down-side end of Miskolc-Repülőtér station, the locomotive driver of the train № 35425 passed the „L” signal at danger without prior authorisation. The locomotive driver realised his passing the signal and applied emergency braking. The pointsman at work at the signal box № 1 also realised the occurrence, so he went out onto the balcony of his work station and, using his flag, he issued a Danger signal to the locomotive driver. Then, in the switching zone of the station, the train № 35425 burst the switch № 15 (which was part of the exit route of the train № 5416 and was in diverging position) open, and finally stopped behind it, on the switch № 21. After the train № 35425 stopped, the pointsman changed the “Clear” signal “G” to “Danger” for the train № 5416, and, went put to the balcony again to issue the necessary signal with his flag. When realising the change of the signal “G”, the locomotive driver of the train № 5416 moving across the track № II of the station applied the brake and stopped his train immediately. The two trains stopped facing each other, at a distance of ca. 320 m.

During the investigation, the IC found that, due to the design of the safety installations, the entry signal “L” had indicated “Danger” aspect to the train № 35425, which the train had passed without authorisation. No braking problem was identified in the train.

The IC attributed the occurrence to human factors on the part of the locomotive driver.

# CONCLUSIONS

## Direct cause

The direct cause of the occurrence was that the locomotive driver had not start to brake his train in due time for stopping the train at the entry signal “L”.

## Indirect causes

Those findings relating to competences, procedures and maintenance which are related to the factors enumerated above:

1. the locomotive driver forgot that he had been given a distant signal for a main signal at danger;
2. the locomotive driver erroneously supposed that the entry signal was “Clear“;
3. he did not focus his attention on the task.

## Root cause

The locomotive driver’s low workload and monotonous work led to his inattention mentioned in the section above.

## Other risk factors

A factor which cannot be related to the occurrence but increases risk is that the rules relating to forbidden simultaneous train movements do not specify the availability of a suitable train control system, which may lead to occurrences with more serious outcome.

## Proven procedures, good practices

It mitigated the consequences of the occurrence, i.e. helped avoid a more serious outcome, that the pointsman had realised the dangerous situation and taken appropriate preventive actions (issuing hand signals and setting the exit signal to danger position) in order to prevent collision of the trains.