**REPORT No. PKBWK 04/2021 (fragment)**

**On the investigation of a category A20 seriuous accident which occurred on 18 August 2020 at 7:29 a.m. along the Nisko – Rudnik nad Sanem route, track no. 1, category C level crossing, at km 119.080 of the Lublin Główny – Przeworsk railway line no. 68, area of the PKP Polskie Linie Kolejowe S.A. infrastructure manager, PKP Polskie Linie Kolejowe Railway Lines Plant in Lublin**

## Brief description of the event, place and time of the accident and its outcome

On 18 August 2020, during the travel of the MPE26105 Lublin Główny – Wrocław Główny train of the PKP Intercity S.A. carrier on track no. 1, along the Nisko – Rudnik nad Sanem route of the Lublin – Przeworsk railway line no. 68, at a cat. C level crossing at km 119.080 at 7:29 a.m., a MAN lorry drove directly in front of the approaching train. The road vehicle did not stop before traffic sign B-20 ‘Stop’ and entered the level crossing in front of the moving train in spite of the warnings transmitted by the traffic signals of the automatic level crossing system (SSP), prohibiting entry to the crossing. The accident resulted in the road vehicle driver’s death, while the train driver was severely injured. No other train personnel or passengers were injured. The accident caused the derailment of two wheelsets of the locomotive. The locomotive, the road vehicle and the SSP devices were completely destroyed; moreover, damage was sustained by the sheathing of the railway wagons and elements of the railway infrastructure, i.e., the track and the overhead line.

### Direct cause:

The entry of a lorry onto a level crossing directly in front of the approaching MPE26105 passenger train.

### Original cause:

The road vehicle driver's failure to exercise great caution while approaching the level crossing and failure to abide by the warning transmitted by the traffic signals of the automatic level crossing system (SSP) prohibiting entry to this crossing, as well as traffic sign B-20 ‘STOP’.

### Indirect causes:

1. The visibility of the crossing from the access road on which the lorry was driving, which is improper and incompatible with current provisions, including the red lights transmitted by the SSP traffic signals located at the left and right sides of the level crossing, resulting from the arrangement of the signal boxes, which does not provide proper visibility of the transmitted signals, and from the contamination of lenses.
2. Limited visibility of the train head from the lorry driver's seat when approaching the crossing on a road parallel to the railway while leaving a construction site, turning and entering the crossing.

### Systemic cause:

The railway infrastructure manager’s failure to perform an assessment of the significance of the change resulting from the objectives of agreement no. 21/203/0048/19 dated 27 August 2019, and the absence of a risk assessment related to the introduced change (as justified in point III.1).

# RECOMMENDATIONS INTENDED TO PREVENT SUCH ACCIDENTS IN THE FUTURE OR ALLEVIATE THEIR RESULTS

According to article 28l item 8 of the railway transport act of 28 March 2003 (uniform text: Journal of Laws 2020 item 1043 as amended), the Commission recommends implementing the following actions:

1. The infrastructure manager of PKP Polskie Linie Kolejowe S.A. will assess the significance of the change and the risk, taking into account the irregularities listed in points II.1.5., IV.5.3., IV.5.4. and IV.6. of the Report.
2. Railway infrastructure managers will extend their duties of inspecting:
   1. the visibility of the crossing from access roads,
   2. proper preservation of visibility triangles,
   3. proper arrangement of the traffic signal boxes and their visibility from the access roads,
   4. the validity of the level crossing certificate and its compliance with the parameters on the ground,

for all workers performing maintenance procedures, as well as inspections and diagnostics of the crossings.

1. As part of a safety management system (SMS), the railway infrastructure manager of PKP Polskie Linie Kolejowe S.A. will take actions intended to improve the efficiency of implementing SMS procedures, in particular procedures PW-01 and PR-03, as well as to improve the efficiency of the performed inspections and diagnostics of level crossings, and they will apply effective mechanisms for supervising the implementation of obligations resulting from these procedures.