

## **Executive Summary**

### **Taiwan Sugar Corporation's Train No. 118 at Huanhe Road Level Crossing**

At 1337, on June 26, 2020, Train number 118 of Taiwan Sugar Corporation (TSC) passed through the level crossing of Huanhe road in Changhua County and collided with a truck. The locomotive and the truck fell into the drainage ditch, and three passenger cars derailed. The train and the truck drivers were both slightly injured and all passengers were safe. There were no casualties in the accident.

According to the Transportation Occurrences Investigation Act, the Taiwan Transportation Safety Board is responsible for investigating major transportation occurrences that arise in the R.O.C. territory. This accident is considered as a major transportation occurrence within the scope of investigation. The Railway Bureau, Taiwan Sugar Corporation and Changhua County Government were invited to participate in the investigation.

The investigation report was approved by the 35<sup>th</sup> Board Meeting on February 11, 2022, and published on March 9, 2022.

After comprehensive investigation and analysis of the factual data, a total of four conclusions and five safety recommendations were obtained, which are detailed as follows:

### **Findings**

#### **Findings related to probable causes**

1. The truck driver didn't follow Article 104 of Regulation for Road

Traffic Safety, reducing driving speed when approaching the level crossing, minding the coming trains from both sides by the manners of waiting, and watching and listening 3-6 meters away from the track before crossing. The truck driver attempted to pass through the level crossing before the train arrived. Then the train collided with the truck on the level crossing and derailed.

### **Findings related to risk**

1. Unprotected Railroad Crossing Sign is not installed on both north and south sides of the level crossing of Huanhe road by Article 36 of Regulation for Road Traffic Sign Marking and Signal Installation.

### **Other findings**

1. The onboard recorder is not calibrated regularly by TSC. The recorded data can't display the actual situation of the train operation.
2. A small-capacity memory card is used in the onboard camera. The power supply of the onboard camera was not switched off after the accident. The images of the accident were overwritten.

### **Safety Recommendations**

#### **To Changhua County Government**

1. Install the appropriate traffic sign around railway level crossing within the country according to the Regulation for Road Traffic Sign, Marking, and Signal Installation.
2. Disseminate to follow the road traffic regulations when passing Taiwan Sugar Corporation railway level crossings to road users.
3. Consider installing technology detection equipment around the level crossing of Huanhe road, banning those violators.

#### **To The Taiwan Sugar Corporation**

1. Calibrate the onboard recorder periodically, to ensure the record of train operation data is validated.
2. Use larger-capacity memory cards and establish a procedure of switching off the onboard camera power supply after an accident as soon as possible to save the image of the accident completely.

Note: The language used in the occurrence investigation Final Report is in Chinese. To provide a general understanding of this investigation for the non-Chinese reader, the Executive Summary of the Final Report was translated into English. Although efforts are made to translate it as accurately as possible, discrepancies may occur. In this case, the Chinese version will be the official version.