

Railway accident investigation report

Railway operator: Japan Freight Railway Company
Accident type: Train derailment
Date and time: About 05:36, April 26, 2012
Location: Around 29,027m from the origin in Goryokaku station, between Izumisawa station and Kamaya station, single track, Esashi Line, Kikonai Town, Kamiiso District, Hokkaido.

SUMMARY

The 3061 train, high speed freight train composed of 20 cars, starting from Hiroshima Freight Terminal station bound for Sapporo Freight Terminal station, departed from Aomori signal station at 03:52 on schedule, and arrived at Goryokaku station at 06:13, April 26, 2012.

The transport staff waiting for the train at Goryokaku station found smoke rose from the freight wagon, 18th car of the arrived train, and notified to the station office. The rushed station staffs fought the fire of the freight wagon that the smoke rose from around the bogie. On the other hand, the switching malfunction of the turnout occurred in the premises of Kamaya station, Esashi Line, at 05:09 of the same day. The track maintenance staffs of Hokkaido Railway Company checked track condition in the premises of Kamaya station, and found that the turnout was damaged and there were traces of derailment on the sleepers around it.

The freight wagon emitting smoke at Goryokaku station was not derailed but judged as it had derailed once, by the results of the inspection about status of the wheels of the freight wagon.

A train driver was onboard the train, but there was no injury.

PROBABLE CAUSES

It is considered probable that the outside wheel climbed up to the top of outside rail, i.e., it was the flange climb derailment, by the increased derailment coefficient for the outside wheel, because the lateral force acting on the outside wheel had increased by the increased wheel load of the inside wheel, and the wheel load of the outside wheel had decreased, due to the large unbalance in the static wheel loads between right and left wheels of the freight wagon loaded containers, compared to the wagon with balanced static wheel load, while the train passed in the curved track of 300m radius, in this accident.

It is considered highly probable that the uneven loading in the containers caused the large unbalance in the wheel loads in the derailed freight wagon.

In addition, it is considered somewhat likely that the combination of track alignment and cross-level, which should be managed in the section where freight trains are operated, had relatively large at the point climbing up by the wheel started, promoted the decrease of wheel load of the outside wheel.