

## Railway serious incident investigation report

Railway operator: Hokkaido Railway Company  
Accident type: Vehicle damage, railway serious incident related with malfunction, damage, destruction, etc., effecting to the safe train operation in the running gears, brake gears, electric devices, coupling devices, train protection system, etc., of the vehicle, prescribed in Number 8, Clause 1, Article 4, of the Ordinance on Report on Railway Accidents, etc.  
Date and time: About 23:03, January 7, 2013  
Location: Around 241,362m from the origin in Takikawa station, between Tsunetoyo signal station and Kami-Atsunai station, single track, Nemuro Line, Urahoro Town, Tokachi District, Hokkaido.

### SUMMARY

The outbound diesel limited express 4013D train, five vehicle train set named "Super Ozora", starting from Sapporo Station bound for Kushiro Station of Hokkaido Railway Co., Ltd. passed Tsunetoyo signal station 7 minutes behind the schedule, i.e., 22:54, on January 7, 2013. The train driver noticed that the door pilot lamp was turned off while driving at about 90 km/h, he applied an emergency brake and stopped the train. After the train stopped, the conductor checked the doors of the fifth vehicle, and found that the front right door opened about 30 cm. The train operation was resumed after the door had been locked and the watchman had been posted.

There were 37 passengers and two crews on boarded the train, but there was no fallen passenger and no injury.

### PROBABLE CAUSES

It is considered somewhat likely that the door was opened by the negative pressure and a jolt while the train ran in the Atsunai tunnel, because the closed door could not be held by the door open/close device in which the compressed air was not supplied due to a frozen drainage in the air pipe for closing door in the front right, fourth position, of the fifth vehicle by the low temperature of the open air, in this railway serious incident.

It is considered highly probable that a drainage was collected in the air pipe for closing door because the vapor contained in the compressed air was condensed, as the compressed air did not dehumidified because the dehumidify bypass cock in the compressed air pipe of the fifth vehicle was left open.

In addition, it is considered somewhat likely that the dehumidify bypass cock, which should be fixed and locked at close position, was left open by mistakes due to some reasons, in the circumstances that the staffs in the section of periodical inspection of vehicles and in the section where management of vehicles was handed over were not informed that the dehumidify bypass cock should be fixed and locked at the close position, due to the insufficiency and impropriety of the order system and instruction transfer system when management of vehicles were transferred to another section in Hokkaido Railway Company.