COLLISION OF A FREIGHT TRAIN WITH REAR END OF ANOTHER FREIGHT TRAIN IN SIURO, NOKIA ON 21 FEBRUARY 2011

A freight train, which had arrived to assist another freight train travelling to Mäntyluoto, Pori, collided with the end of the other train in Nokia, between Siuro and Suoniemi, at 4.05 am on 21 February 2011. The engine driver of the assisting train fatally injured in the accident. One wagon and the locomotive, which collided the end of the other train, were badly damaged and had to be scrapped. Additionally, one wagon was badly damaged, but was still repairable. The tracks were undamaged. Traffic at the accident site was interrupted for 14 hours.

According to the running recorder data, the driver of the train which collided had begun emergency braking, at a speed of 46 km/h, five seconds before the impact. The train speed was 43 km/h upon impact. The maximum permitted speed of the train which collided was 50 km/h.

The accident was caused by the erroneous location information of the train to be assisted. This led the driver of the assisting train to approach the location at too high a speed. He believed that the other train was further away. The investigation found that a failure of the charge voltage regulator of the Dv12 locomotive serving as the leading locomotive led to the need for assistance which precipitated the accident. This caused the locomotive battery voltage to drop, which in turn stopped the locomotive. The driver of the train to be assisted had little experience of Dv12 locomotives and their problem solving procedures. This was a factor in the driver failing to note the low battery voltage. Darkness and the track geometry led to the driver of the assisting train's failure to notice the other train in time. At the speed he had attained, he was unable to prevent the collision.

In order to avoid similar accidents in the future, the Safety Investigation Authority, Finland recommends the following:

- A satellite location system should be implemented as quickly as possible to assist in location.
- Locomotives and train units should be equipped with checklist-type problem solving diagrams, which would help the engine driver when a fault occurs in a locomotive on the line[3].
- Reflectors should be installed on the ends of wagons.
- The speed of the assisting unit should be limited to 35 km/h, when it is driving to assist a train on the line.
- The use of group calls should be made into a standard procedure in exceptional situations.

[3] On the line = on the line section between stations.