

4 CONCLUSIONS

1. The trackwork supervisor submitted a trackwork notification for the wrong section of line by mistake.

Conclusion: If procedures to ensure the correct location are not used in submitting a trackwork notification, a notification can be submitted for the wrong section of line.

2. There are several different ways to locate trackwork, but the method used to ensure correct positioning is discretionary.

Conclusion: The accident showed that there are holes in the system. The regulations do not require efficient use of confirmation methods.

3. The trackwork supervisor did not use the GPS feature of the RUMA application to locate the trackwork. Centralised traffic control did not check that GPS positioning was used. In the instructions of the Finnish Transport Infrastructure Agency, the use of the GPS positioning feature has not been clearly specified as mandatory: the trackwork supervisors need to use GPS positioning, but traffic controllers do not need to confirm it.

Conclusion: The accuracy of GPS positioning would be enough to locate the trackwork in the right area. The benefits of systems are lost completely if they are not used.

4. The trackwork supervisor did not check the location based on track elements or location markers before going on the track. Neither did the traffic controller use them to confirm the location of trackwork during voice communications. The instructions do not require centralised traffic control to use track elements and location markers in confirming the location of trackwork.

Conclusion: Using track elements and location markers would make the location of trackwork concrete. If they are not used, the voice communications remain vague.

5. The map in the RUMA system does not support the identification of the trackwork site on sections of line in particular. The traffic controllers must use several different information systems and their maps. The systems do not exchange information with each other.

Conclusion: The maps of the information system's platforms should be uniform and sufficiently accurate. They should show landmarks, such as bridges, undercrossings and level crossings.

6. There are deficiencies in the training and competence related to locating trackwork. Trackwork supervisors do not take full advantage of the features of the RUMA application.

Conclusion: Competence assurance in the trackwork training of companies has not been completely successful.