Statens haverikommission
Swedish Accident Investigation Authority

NIB Annual Report 2017

Swedish Accident Investigation Authority

Ref. No A 133/18

07/09/2018

Statens haverikommission
Swedish Accident Investigation Authority

The Swedish Accident Investigation Authority (SHK) investigates accidents and incidents from a safety perspective. The purpose of the investigations is to enable similar incidents to be avoided in the future. SHK investigations do not, however, aim to assign liability or blame, whether criminal, civil or administrative.

This report is also available on the SHK website: www.havkom.se

ISSN 1400-5743

Third image on cover – Photo: Anders Sjödén/Swedish Armed Forces.

Postadress/Postal address	*Besöksadress/Visitors*	*Telefon/Phone*	*Fax/Facsimile*	*E-post/E-mail*	*Internet*
P.O. Box 6014 SE-102 31 Stockholm Sweden	Sveavägen 151 Stockholm	+46 8 508 862 00	+46 8 508 862 90	info@havkom.se	www.havkom.se

Contents

1. INTRODUCTION

1.1 Legislation

The Swedish Accident Investigation Authority [Statens haverikommission, SHK] has independent status. Its activities are regulated, inter alia, by the Accident Investigation Act (1990:712), the Accident Investigations Ordinance (1990:717), and the Ordinance (2007:860) laying down instructions for the SHK.

Through these regulations, the Railway Safety Directive (Directive (EU) 2016/798) has been transposed into Swedish law.

1.2 Role and tasks

The Swedish Accident Investigation Authority (SHK) investigates trackbound traffic accidents if they were caused by collisions between rail vehicles, derailments, or other incidents of significance to safety that resulted in at least one fatality or at least five serious injuries or which resulted in extensive damage to rail vehicles, track systems, property which was not being transported by the rail vehicle, or to the environment, and where the total costs of such damage are estimated at an amount equal to at least EUR 2 million.

An incident must be investigated if:

- it involved a serious risk of an accident;
- it suggests serious faults in rail vehicles or track systems, etc.; or
- it suggests other significant shortcomings with regard to safety.

A coordinator from concerned supervisory bodies normally follows the

investigation. The purpose of an SHK investigation is to:

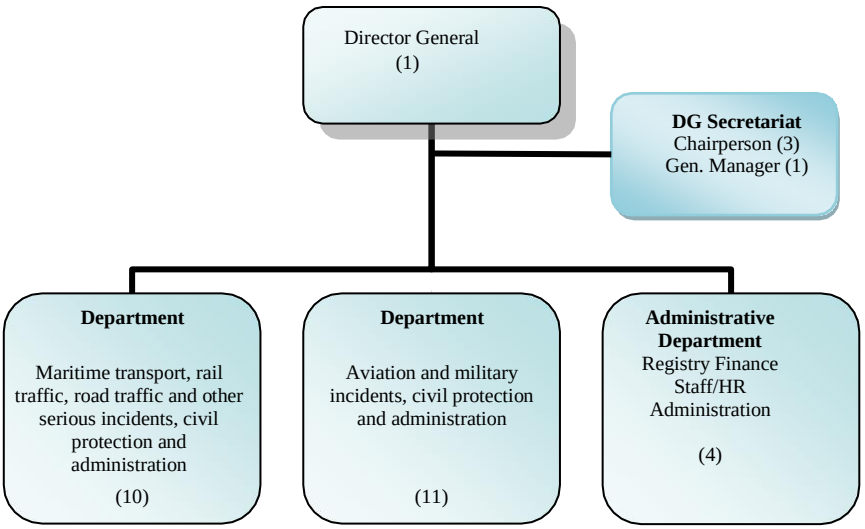
- clarify, insofar as possible, the course of events and cause(s), as well as damages and other consequences;
- provide a basis for decisions on measures to prevent a similar incident from occurring, or to limit the impact of a similar incident;
- provide a basis for an assessment of the emergency services' actions in connection with the incident and, if necessary, for improvements to the emergency services.

At the end of the fact-finding phase, the SHK convenes an incident meeting at which all the facts are presented. All parties affected by the incident are invited to participate in the meeting. Representatives from interest groups and labour unions are also usually invited.

Where necessary, the SHK must make safety recommendations to the respective supervisory body or safety authority or to other authorities or bodies on which to base decisions on suitable measures.

The role of the SHK does not include taking a position on matters of liability or damage claims. The investigations are aimed solely at improving safety.

1.3 Organisation



Generaldirektör (1)	Director General (1)
Avdelning 1	Department 1
Sjöfart, spårtrafik, vägtrafik och andra allvarliga händel- ser, räddningstjänst samt administration	Maritime transport, rail traffic, road traffic and other serious incidents, civil protection and administration
Avdelning 2	Department 2
Luftfart, militära händelser, räddningstjänst samt administration	Aviation and military incidents, civil protection and administration
Administrativa avdelningen	Administrative Department
Registratur Ekonomi Personal/HR Administration	Registry Finance Staff/HR Administration
GD-stab	DG Secretariat
Ordförande (3) Adm.Chef (1)	Chairperson (3) Gen. Manager (1)

Under current provisions, in an investigation the SHK must always consist of one Chair and at least one additional investigator.

Considering the wide range of incidents that may be subject to an accident investigation, the SHK must occasionally engage external experts who, using their respective expertise, work for the SHK by gathering facts and performing analyses. The SHK has contracted experts in various fields for the most common types of investigations.

2. INVESTIGATIONS

2.1 Investigations closed in 2017

Type of occurrence	Number of occurrences			Property damage in EUR (estimate)
		Fatalities	Seriously injured	
Accident	4	0	1	3 million
Incident	1	0	0	

2.2 Investigations completed in 2017

Grounds for investigation:

i. In accordance with the Railway Safety Directive;

ii. In accordance with national legislation (possible areas exempted in Article 2(2));

iii. Voluntary investigations – other criteria (national laws not referenced in the Railway Safety Directive).

2.2.1 Investigations completed in 2017

Date of incident	Title of investigation	Legal basis	Completed
25/05/2016	Two technicians struck at Markaryd, Västra Götaland County	i	20/03/2017
07/06/2016	Near-miss between a train and shunting rolling stock at Västerås, Västmanland County.	i	30/03/2017
21/09/2016	Collision between train 9207 and train 6032 on the Piteå – Arnemark section, Norrbotten County	i	06/09/2017
30/09/2016	Collision between a train on single-line working with an auxiliary vehicle and a stationary train on the Deje – Molkom section, Värmland County.	i	18/09/2017
11/10/2016	Collision between train 34871 and train 26890 at Fångsjöbacken manoeuvring area, Jämtland County	i	19/12/2017

2.3 Investigations launched in 2017 but not completed in 2017

Date of incident	Title of investigation	Legal basis
12/10/2017	Derailment of train 5678 at Ludvika, Dalarna County	i

2.4 Summaries of investigations completed in 2017

2.4.1 Final report RJ 2017:01 – Two technicians struck at Markaryd, Kronoberg County, 25 May 2016

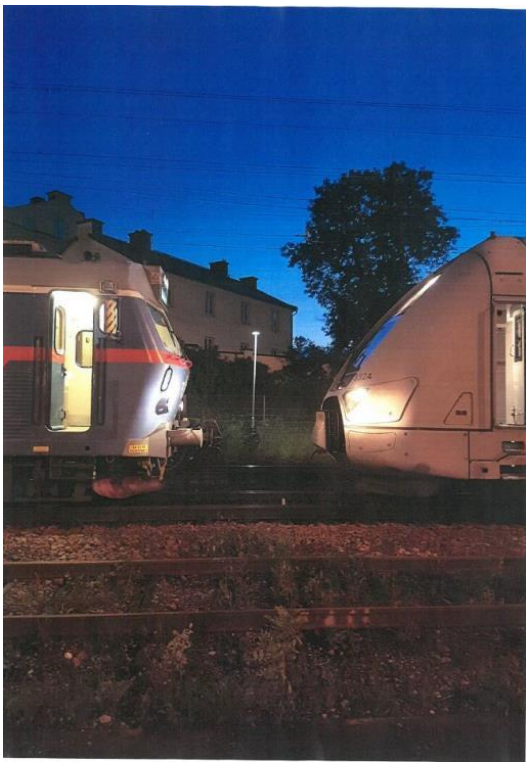
Two train technicians were struck by a train (80849) while carrying out repair work at a set of points on the main line at Markaryd. The traffic management was not aware of the work and certain measures had not been taken to protect the activity. The train was travelling on a locked route with signals that allowed a train speed of 100 km/h. The driver saw the technicians a short distance ahead and had no opportunity to stop the train before the collision occurred. One technician was seriously injured, the other was also injured, albeit not seriously.

The accident occurred because the technicians were working in the safety zone without taking measures to protect themselves against vehicle movements on the track.

A contributory reason was that no risk assessments were carried out before the work.

An underlying factor was that the contractor had no reliable and effective system for appointing safety and security officers in connection with directly planned engineering work, which in turn contributed to an unclear distribution of roles within the work team.

2.4.2 Final report RJ 2017:02 – Near-miss between a train and shunting rolling stock at Västerås, Västmanland County, 7 June 2016



Shunting rolling stock passed by a dwarf signal that showed the message 'Stop' and was issued on the route for an approaching train, with passengers on board, in Västerås. Both trains braked to a standstill and stopped about 1.6 m from each other. The approaching train was travelling at approximately 60-70 km/h when the danger was discovered.

The direct cause of the incident was that the shunting rolling stock with vehicles from train 768 was not stopped by signal 138 because the signal was not observed; in this way, the shunting rolling stock was brought onto the route of the approaching train 2169.

The reason that signal 138 was not observed is probably due to the fact that other visual stimuli, in particular the headlights of the approaching train 2169, were in the field of vision and drew attention.

2.4.3 Final report RJ 2017:03 – Collision between train 9207 and train 6032 on the Piteå – Arnemark section, Norrbotten County, 21 September 2016

On 21 September 2016, train 9207 collided with train 6032 near the Öjebyn industrial area, on the Piteå – Arnemark section. Train 6032 had left Piteå with permission to pass signal L2, which showed 'stop'. However, train 9207 had not left the route, but was heading for Piteå. At the time of the collision, train 6032 had already stopped, while train 9207 was still travelling at about 50 km/h, despite the driver slowing down as soon as he realised there was a risk of a collision.

The three people who were on board the train suffered minor injuries. Significant material damage occurred at the site in both trains and also to wagons and freight. Extensive damage was caused to approximately 50 metres of track.

The direct cause of the accident was that the check carried out by the mainline train dispatcher of the route (i.e. check of every train that was previously located on the section) led to the erroneous conclusion that train 9207 was in Piteå and that the section towards Arnemark was therefore free for train 6032.

The underlying reason for the assumption was that the mainline train dispatcher confused which trains were entering Piteå and in his checks had greater confidence in notes on a help form for points at Piteå yard, rather than indications in the Argus train control system and the train dispatch documentation that was expected to be carried and available in the STEG documentation and the planning tool.

The underlying cause at system level was that the infrastructure manager was not aware of whether the mainline train dispatcher, who had limited experience, had sufficient understanding of how to check the train dispatch documentation, what status the different help systems have in relation to each other and how their information should be interpreted.

Further potential influencing factors were that the infrastructure manager had only let experienced train dispatchers participate in the preparation of the system when STEG was being developed, and did not further analyse the risks that may be being taken when introducing a system with an increased focus on planning to replace previous documentation systems.

2.4.4 Final report RJ 2017:04 – Collision between a train on single-line working with an auxiliary vehicle and a stationary train on the Deje – Molkom section, Värmland County, 30 September 2016

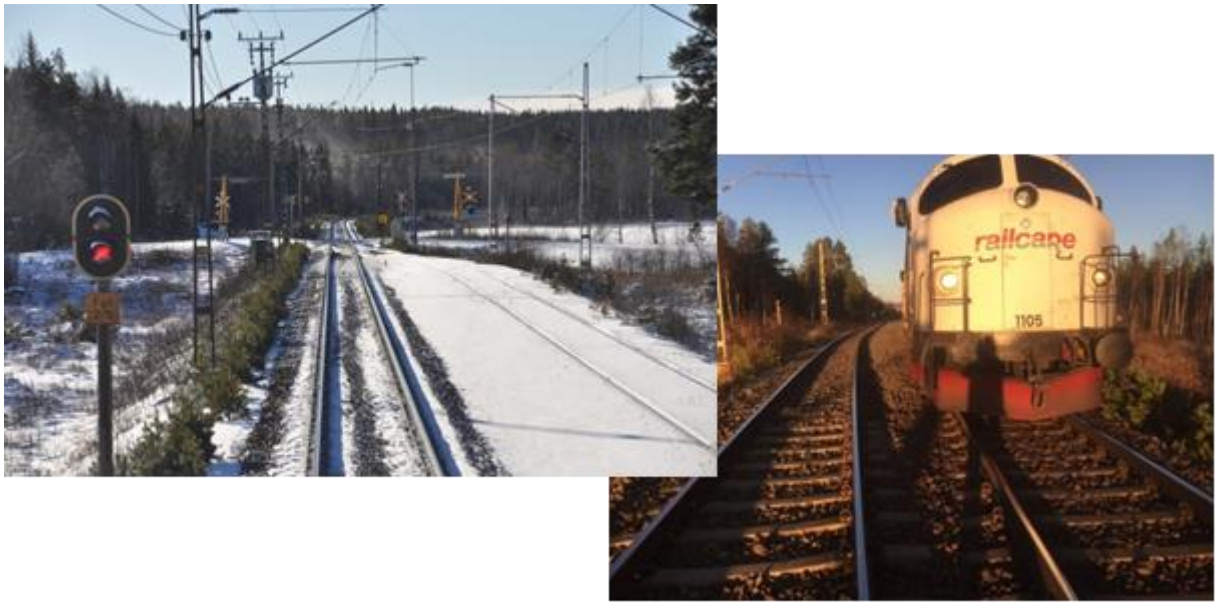
On 30 September 2016, a freight train was stationary in an upturn between Deje and Molkom on the Kil – Daglösen single-track stretch. An auxiliary vehicle, consisting of two Rc3 locomotives, was sent out to help the stationary train. However, the auxiliary vehicle collided with the train, one of the drivers was injured and the vehicles suffered extensive damage.

The direct cause of the collision was that the speed of the auxiliary vehicle was not matched to the circumstances of the situation.

The following factors probably contributed to the accident:

- The driver's desire to complete the auxiliary vehicle driver assignment as soon as possible so as to also be able to complete his regular assignment.
- The driver's limited experience in applying the rules for and driving auxiliary vehicles.
- The driver's perception of a lack of obstacles on the track may have been affected by the location information exchanged between the drivers about where the stationary train was situated.

2.4.5 Final report RJ 2017:05 – Collision between train 34871 and train 26890 at Fångsjöbacken manoeuvring area, Jämtland County, 11 October 2016



On 11 October 2016, a collision occurred between freight trains 34871 and 26892 at Fångsjöbacken, Jämtland County. The trains were to meet at the Fångsjöbacken manoeuvring area.

The manoeuvring area has two main tracks that allow simultaneous entry on a single track. Train 34871 had the signal aspect ‘proceed, await stop’ on the entry signal to one track. The driver of train 34871 has stated that, due to direct sunlight, he did not notice the restrictive signal, nor the visual information from the vehicle’s ATC train protection system. The driver also did not notice the sound alert from the ATC system.

As the driver approached the intermittent signal, he saw that it showed ‘stop’ and also noticed that the ATC system was intervening and braking, whereupon the driver also applied the emergency brake. Although the maximum braking force was employed, train 34871 did not stop until it had passed the intermediate signal, a subsequent stop light and arrived at the track separating points at the other end of the manoeuvring area. The rear section of train 26890 was still in the points.

A handle, rear-view mirror and an external emergency stop button on train 34871’s locomotive struck one of the wagons of train 26890 and suffered minor damage. No one was injured in the incident.

The following causes contributed to the collision:

The driver of train 34871 did not notice the restrictive signal of the entry signal to Fångsjöbacken, nor the visual information or visual warning in the vehicle's ATC panel. The driver also did not notice the sound alert from the ATC panel. Contributory reasons for the message not being noticed were likely to be mainly direct sunlight and the fact that the noise level of the ATC system warning sound was set to minimum while headphones were being used.

The ATC system initiated braking late due to the fact that the values entered into the ATC panel concerning the braking ability of the vehicle did not match the actual values.

The fact that the deceleration was slower than normal when the brakes were applied was due to flaws in the braking system.

A contributory reason why the incorrect entry into the ATC system was not detected was that no deceleration check could be performed due to the upcurve. Although a deceleration check could not be performed, no lower deceleration value had been entered.

One underlying reason for the incident was that Railcare T AB had not ensured that the information to staff had also been understood and applied in practice. Another underlying reason was that the maintenance programme applied by Railcare T AB was not adequate to detect current flaws in the braking system.

Accidents and incidents investigated in the last five years

Rail traffic investigations launched 2013-2017

Investigations of accidents/incidents		2013	2014	2015	2016	2017	Total
Serious accidents Art. 20.1-2)	Collision				3		3
	Collision with an obstacle	1					1
	Derailment		1			1	2
	Level-crossing accident						0
	Personal accident due to train in motion			1	1		2
	Fire in rolling stock						0
	Large-scale release of dangerous goods						0
	Fire						0
	Incident		3		1		4
Total		1	4	1	5	1	12

3. RECOMMENDATIONS 2017

Date and time:	21/09/2016, 17:18	
Location:	Piteå – Arnemark, Norrbotten County	
Type of occurrence:	Collision	
Vehicle type and train number:	Two locomotives letters Rc/Rd each with its trainset Freight train 9207 and freight train 6032	
Number on board:	Personnel:	3
	Passengers:	0
Number of fatalities:	Personnel:	0
	Passengers:	0
Number of seriously injured:	Personnel:	0
	Track workers	0
Number of slightly injured:	Personnel:	3
	Passengers:	0
Damage to rolling stock:	Damage to both locomotives, wagons and freight.	
Damage to railway infrastructure:	Extensive damage to approximately 50 metres of track.	
Other damage:		
Summary: please see section 2.4.3		
Publication of final report:	06/09/2017	
RJ 2017:03 R1 *RJ 2017:03 R2*	It is recommended that the Swedish Transport Administration: • Regarding the checks to be performed by mainline train dispatchers before a train is allowed to pass a signal that shows 'stop', analyse the possibility of selecting the control method and using only a control method that entails sufficient security. • Review whether it is necessary to clarify or carry out training on how to check one's own train dispatch documentation, what such checks should include and what status different forms and electronic systems have in relation to each other.	
RJ 2017:03 R3	It is recommended that the Swedish Transport Agency: • within the framework of its supervision, review how the Swedish Transport Administration, through its safety management system, implements the lessons learned and experience gained regarding the understanding, training, functionality and follow-up of the STEG planning and documentation system and its use in relation to forms and other systems as illustrated in this report.	

Date and time:	30/09/2016	
Location:	Deje – Molkom section, Värmland County	
Type of occurrence:	Collision	
Vehicle type and train number:	Freight train 69316 with locomotive letter 185 Train on single-line working (consisting of locomotive from earlier train 69219)	
Number on board:	Personnel:	2
	Passengers:	0
Number of fatalities:	Personnel:	0
	Passengers:	0
Number of seriously injured:	Personnel:	0
	Track workers	0
Number of slightly injured:	Personnel:	1
	Passengers:	0
Damage to rolling stock:	Yes	
Damage to railway infrastructure:	Yes	
Other damage:	No	
Summary: please see section 2.4.4		
Publication of final report:	18/09/2017	
RJ 2017:04 R1	It is recommended that the Swedish Transport Administration: • consider whether the upper speed limit for 'full visibility' should be one of the parameters to be included when the maximum permissible speed for single-line working with auxiliary vehicles on system M is to be determined and fed into the train protection system before single-line working begins.	

Date and time:	11/10/2016	
Location:	Fångsjöbacken manoeuvring area, Jämtland County	
Type of occurrence:	Collision	
Vehicle type and train number:	Freight train 34871, TMY locomotive 1105. Freight train 26890, Train letter UAD	
Number on board:	Personnel:	2
	Passengers:	0
Number of fatalities:	Personnel:	0
	Passengers:	0
Number of seriously injured:	Personnel:	0
	Track workers	0

Number of slightly injured:	Personnel:	0
	Passengers:	0
Damage to rolling stock:	Minor damage	
Damage to railway infrastructure:	No	
Other damage:	No	
Summary: please see section 2.4.5		
Publication of final report:	19/12/2017	
RJ 2017:05 R1	It is recommended that Railcare T AB: • in addition to the measures already taken, consider whether physical improvements can be made to the driver environment in the current type of locomotive in terms of visibility, light and sound conditions.	
RJ 2017:05 R2	It is recommended that the Swedish Transport Agency: • if necessary, in collaboration with the Swedish Work Environment Authority, examine, in the context of its supervision, how other railway undertakings handle visibility, light and sound conditions in older locomotives.	

Case number
TRV 2016/83785
Your case number
J-39/16

Document date
08/12/2017
Pages
1(2)

Swedish Accident Investigation Authority
investigations@havkom.se

TRAFIKVERKET

Collision between trains on Piteå – Arnemark section, 21 September 2016

On 6 September 2017 the Swedish Accident Investigation Authority published report RJ 2017:03 on the above-mentioned incident.

In the report, the Swedish Accident Investigation Authority makes two recommendations to the Swedish Transport Administration, and, based on these, the Swedish Transport Administration has taken the following measures:

The first recommendation:

- Regarding the checks to be performed by mainline train dispatchers before a train is allowed to pass a signal that shows 'stop', analyse the possibility of selecting the control method and using only a control method that entails sufficient security. *(RJ 2917:03, R1)*

The current regulations state that: The train dispatcher shall check where the trains that could be on the surveillance section are in one of the following ways:

- talk with the drivers,
- check that logical movements take place,
- make sure where the train is by reviewing his own train dispatch documentation on the trains' movements.

The train dispatcher can currently choose one of the above to check where the train is.

A proposal has been put forward to amend the regulations. This means that the train dispatcher must initially call the driver, supplemented by matching the driver's information to signal box indications and train dispatch documentation as follows.

'The train dispatcher shall check where the trains that could be located on the surveillance section actually are by talking to the drivers and matching the drivers' information about position with current signal box indications and the train dispatch documentation. If a driver cannot be reached and the train is expected to have reached its final destination, the train dispatcher can make sure of this by contacting the railway undertaking concerned.'

Trafikverket
Röda vägen 1
781 89 Borlänge
Visiting address: Röda vägen 1

Texttelefon: 010-123 50 00
Telephone: 0771 -921 921
trafikverket@trafikverket.se
www.trafikverket.se

Helena Hook
Director General's Office, Safety Function
Direct: 010-123 5887
Mobile: 070-601 5664
helena.hook@trafikverket.se

Decision
Date
05/12/2017

Doc. No/Reference
TSJ 2016-4025
Your reference
J 39/16

Swedish Accident Investigation Authority
Box 12538
102 29 Stockholm

Reply to recommendation in SHK investigation report RJ 2017:03, collision between train 9207 and train 6032 on the Piteå – Arnemark section, Norrbotten County, 21 September 2016.

Decision of the Swedish Transport Agency

The Swedish Transport Agency received The Swedish Accident Investigation Authority's (SHK) investigation report RJ 2017:03, collision between train 9207 and train 6032 on the Piteå – Arnemark section, Norrbotten County, 21 September 2016.

In the report, the SHK makes the following recommendation to the Swedish Transport Agency:

- Within the framework of its supervision, review how the Swedish Transport Administration, through its safety management system, implements the lessons learned and experience gained regarding the use, understanding, training, functionality and follow-up of the STEG planning and documentation system as illustrated in this report. (RJ 2017:03 R3).

Here is the Swedish Transport Agency's reply to the SHK recommendation:

- The recommendation will be submitted to the Swedish Transport Agency's Supervisory Board to subsequently prioritise and coordinate with other supervisory activities in 2018 for the Swedish Transport Administration and any other infrastructure managers. The activity concerns safety management systems with regard to understanding, training, functionality and monitoring of new technical systems that affect traffic safety.

Transportstyrelsen
Road and rail
Box 267
781 23 Borlänge
Visiting address
Jussi Björlings väg 19, Borlänge

Telefon 0771-503 503
Fax 0243-152 74
transportstyrelsen.se
jarnvag@transportstyrelsen.se

Magnus Jonsson
Business Development and Support Unit
Data Collection and Analysis Section
magnus.jonssen@transportstyrelsen.se
010-495 59 91

Case number
TRV 2016/83785
Your case number
J-39/16

Document date
08/12/2017
Pages
1(2)

TRAFIKVERKET

Swedish Accident Investigation Authority
investigations@havkom.se

Collision between a train on single-line working with an auxiliary vehicle and a stationary train on the Kil – Molkom section, Värmland County, 30 September 2016, RJ 2017:04

The Swedish Transport Administration received your final report on the incident. The report recommends that the Swedish Transport Administration:

'consider whether the upper speed limit for "full visibility" should be one of the parameters that should be included when the maximum permissible speed for single-line working with auxiliary vehicles on system M is to be determined and fed into the train protection system before single-line working begins. (RJ 2017:04 R1)'.

The Swedish Transport Administration considered the recommendation during the autumn. This was done by working with relevant government experts in and outside the Swedish Transport Administration, which resulted in measures.

The work also found that the speed of 40 km/h is to be seen as a ceiling speed and not as 'full visibility'.
This means that if the ceiling speed is input, it could give a false sense of 'speed recommendation', thus causing the driver not to enter the parameters needed to drive the vehicle in 'full visibility'.
'Full visibility' means that the driver has to adjust the speed to the current conditions, i.e. based on weather and wind, how long the visible section is, the braking capacity of the vehicle, information in the line book, etc.

The Swedish Transport Administration's measures, 2 of

The Swedish Transport Administration has decided to investigate whether it is possible to adapt the requirements of the TTJ to the requirements set out in TSD Operations and Traffic Management, as regards information on where the train requiring assistance is located. The adjustment is scheduled to be completed by 1 June 2020.

The measure is based on the fact that the requirements stated in the TTJ and TSD Operations and Traffic Management respectively are in direct contradiction.

Trafikverket
Röda vägen 1
781 89 Borlänge
Visiting address: Röda vägen 1

Texttelefon: 010-123 50 00
Telephone: 0771-921 921
trafikverket@trafikverket.se
www.trafikverket.se

Helena Hook
Director General's Office, Safety Function
Direct: 010-123 5887
Mobile: 070-601 5664
helena.hook@trafikverket.se

Our date
17/03/2018

Our case handler
Thomas Brunnberg

Your date
19/12/2017

Your Doc. No/Reference J-41/16 RJ 2017:05

Recipient
Swedish Accident Investigation Authority Box 6014
102 31 STOCKHOLM

Response letter to the Swedish Accident Investigation Authority on the final report on how Railcare T AB handled the safety recommendations (RJ 2017 :05)

In view of the measures taken by Railcare T AB regarding changes in maintenance programmes (more frequent servicing and inspection of braking system components) and enhanced driver follow-up as well as the supervision of the undertaking's application of Regulation (EU) No 1078/2012 as the Swedish Transport Agency has stated as a priority in its Supervisory Board, the Accident Investigation Authority in its final report finds no reason to submit any further recommendations in these respects.

The Accident Investigation Authority has assumed that Railcare T AB has learned and gained experience from this incident.

It is recommended that Railcare T AB:
In addition to the measures already taken, consider whether physical improvements can be made to the driver environment in the current type of locomotive in terms of visibility, light and sound conditions.

Railcare T AB reply to this recommendation:
After contact with other vehicle owners of the current vehicle type, and to exchange experience, Railcare has raised the issue based on the recommendations presented by the SHK in its final report. According to other vehicle owners of the same vehicle type, they have not identified any problems of the same kind as found in the report of the Fångsjöbacken incident regarding visibility and risk of glare from the sun. Since the incident in Fångsjöbacken, Railcare T AB has not received reports or discrepancies in relation to visibility and glare.

In the case of noise, it is difficult to fix this due to the construction and age of the locomotive.
Therefore, Railcare T AB has decided not to take any measures regarding the visibility or sound conditions of the vehicles, but we will, on the other hand, ensure the maintenance of the existing toning of the of the toning of the windscreens.

vindrutorna.

Skelleftehamn den 19 mars 2018

Thomas Brunnberg

vindrutorna	windscreens.
Skelleftehamn den 19 mars 2018	Skelleftehamn, 19 March 2018

Railcare T AB
Postal address:
Box 34

932 21 Skelleftehamn

Besoksadress:
Näsuddsvägen 10 Skelleftehamn

Telefon:
0910-43 88 00

Fax:
0910-333 75

Org. nr:
556730-7813
Registered office:
Skellefteå

TRANSPORT STYRELSEN

Decision

Date
22/03/2018

Ref./Designation
TSJ 2016-4459

Your reference
J 41/16

Swedish Accident Investigation
Authority Box 12538
102 29 Stockholm

Reply to the recommendation in SHK investigation report RJ 2017:05, collision between train 34871 and train 26890 at the Fångsjöbacken manoeuvring area, Jämtland County, 11 October 2016.

Decision of the Swedish Transport Agency

The Swedish Transport Agency received the Swedish Accident Investigation Authority's (SHK) investigation report RJ 2017:05, collision between train 34871 and train 26890 on the Piteå – Arnemark section, Norrbotten County, 11 October 2016.

In the report, the SHK makes the following recommendation to the Swedish Transport Agency.

It is recommended that the Swedish Transport Agency, if necessary in cooperation with the Swedish Work Environment Authority:

- In the framework of its supervision, investigate how other railway undertakings handle visual, light and sound conditions in older locomotives. (RJ 2017:05 R2)

Here is the Swedish Transport Agency's reply to the SHK recommendation:

- The Swedish Transport Agency and the Swedish Work Environment Authority have had a collaborative meeting on the supervision of how rail companies handle visibility, lighting and sound conditions in older locomotives.

After the meeting with the Swedish Work Environment Authority, the Swedish Transport Agency has planned to check the risks identified by railway undertakings based on the use of older types of locomotives in

Transportstyrelsen
Road and rail
Box 267
781 23 Borlänge
Visiting address
Jussi Björlings väg 19, Borlänge

Telefon 0771-503 503
Fax 0243-152 74
transportstyrelsen.se
jarnvag@transportstyrelsen.se

Magnus Jonsson
Business Development and Support Unit
Data Collection and Analysis Section
magnus.jonssen@transportstyrelsen.se
010-495 59 91

their operations. In addition, how to handle these risks in one's own operations, as well as how to handle risks that are identified and are common with other undertakings that have similar or identical types of locomotives. According to the regulations on safety management systems[1], railway undertakings are responsible for handling their own risks and common risks with other railway undertakings. In addition, it is checked whether risk management has been supervised or otherwise monitored to achieve the purpose of risk mitigation measures and that the measures do not induce other risks.

Decisions in this case were taken by Head of Division Petra Wermström. The final examination of the case involved Section Manager Åsa Berglind and Managing Director Magnus Jonsson, the subsequent Rapporteur.

Petra Wermström
Head of Division
Road and Rail

Other information.
The Transport Agency also wishes to emphasise that the recast of the European Parliament and Council Directive on railway safety[2], together with the recast of the European Commission's Regulation on requirements for the safety management system[3] [4], contains requirements for managing human factor issues in the organisation. The Directive and the Regulation are scheduled to be introduced into Swedish legislation on 16 June 2019, through the so-called fourth railway package. Article 9.2 of the Directive states, inter alia, that there must be a clear commitment to consistently applying knowledge and methods relating to human factors. Section 4.6 of Annex I to the draft Regulation requires the integration of human and organisational factors and systematically address risks associated with the design and use of equipment, duties, working conditions and organisational arrangements, taking into account human ability as well as human constraints, and the influence on human performance.

[1] The Swedish Transport Agency's regulations (TSFS 2015:34) on safety management systems and other safety provisions for infrastructure managers with safety authorisations and railway undertakings with safety certificates.

[2] Directive (EU) No 2016/798 of the European Parliament and of the Council of 11 May 2016 on railway safety.

[3] http://ec.europa.eu/info/law/better-regulation/initiatives/c-2018-1392_en (link to draft COMMISSION DELEGATED REGULATION (EU) .../ ... of 8 March 2018 establishing common safety methods on safety management system requirements pursuant to Directive (EU) 2016/798 of the European Parliament and of the Council and repealing Commission Regulations (EU) No 1158/2010 and (EU) No 1169/2010. (2018-03 -21))

[4] The European Commission is expected to make a decision on the regulation in spring 2018, and it will then be published in the EU Journal.

Transportstyrelsen
Road and rail
Box 267
781 23 Borlänge
Visiting address
Jussi Björlings väg 19, Borlänge

Telefon 0771-503 503
Fax 0243-152 74
transportstyrelsen.se
jarnvag@transportstyrelsen.se

Magnus Jonsson
Business Development and Support Unit
Data Collection and Analysis Section
magnus.jonssen@transportstyrelsen.se
010-495 59 91