ISSN 1400-5743

SUMMARY

Report RJ 2002:01e

Collision between goods train wagons and tank truck in Västerås harbour, U county, 7 June 2001

Case J-001/01

SHK investigates accidents and incidents with regard to safety. The sole objective of the investigations is the prevention of similar occurrences in the future. It is not the purpose of this activity to apportion blame or liability.

The report is also available on our web site: www.havkom.se

Translated by Tim Crosfield.
From the original Swedish at the request of the Board of Accident Investigation.

In case of discrepancies between the English and the Swedish texts, the Swedish text is to be considered the authoritative version.

Statens haverikommission (SHK) Board of Accident Investigation

Postadress/Postal address	*Besöksadress/Visitors*	*Telefon/Phone*	*Fax/Facsimile*	*E-mail Internet*
P.O. Box 12538	Wennerbergsgatan 10	Nat 08-441 38 20	Nat 08 441 38 21	info@havkom.se
SE-102 29 Stockholm	Stockholm	Int +46 8 441 38 20	Int +46 8 441 38 21	www.havkom.se
Sweden				

Report RJ 2002:01e (Summary)

J-001/01

Report completed 27-09-2002; English translation 15-10-2002 by Tim Crosfield

Train type	Empty uncoupled wagons; totally 24 wagons, both covered and open (Hbikks-T and Os-trucks)
Proprietor	Green Cargo AB
Road vehicle, registration, type	SE-RHJ 736, Scania lorry R144LB 6x2 4NA460
Class	Heavy-duty lorry, reg. no. RHJ736 with trailer reg, no.PJJ632
Owner	Oljetransport i Fagersta AB
Time of event	07-06- 2001, 09.11 hrs *Note*: All times given in Swedish summer time = UTC + 2 hours
Place	Västerås, U county
Weather	Wind: South to south-westerly 4–5 m/s Weather: Dry but fairly cloudy, temp. 15° C
Type of accident	Collision between runaway wagons and parked tank truck
Railway personnel	One goods yard foreman, two shunting foremen, two shunters
Numbers affected:	
railway personnel	None
lorry driver	One
Personal injury	Lorry driver seriously injured
Damage to wagons	Limited
Damage to tank truck and trailer	Considerable
Other damage	Limited environmental effect

The Board of Accident Investigation (SHK) was informed on 7 June 2001 that a collision between uncoupled wagons and a tank truck had occurred at the shunting station in Västerås Port, Västmanland County, on that day at 09.11 hrs.

The accident has been investigated by SHK represented by Sven-Erik Sigfridsson, chairperson until 16 September 2001, Ann-Louise Eksborg, chairperson between 17 September 2001 and 6 January 2002 and Lena Svenaeus, chairperson from 7 January 2002, all dates inclusive; in addition by Stig Gustafson, chief investigator, railways, and Lena Bergön, chief investigator, rescue services. The investigation was followed by Ove Andersson for the Railway Safety Inspectorate, Michael Nilsson for the Swedish Work Environment Authority and Klas Helge for the Swedish Rescue Services Agency.

SUMMARY

From Västerås Western marshalling yard, railway lines run to a port station connected with Västerås Port. Goods are transported by rail to and from Västerås Western and the port station. In the port industrial area the tracks follow the quay to facilitate loading and unloading of vessels. There is a considerable amount of road traffic in the port area.

On the morning of 7 June 2001 a shunting foreman with a shunting engine was to back an LPG truck and an empty Os truck to an LPG depot situated on a siding between the marshalling yard and the port station. Following contact with the shunting foreman, the goods yard foreman on duty requested the Signal control centre at 09.14 hrs. to open the points to the port. The safety switch – which in its left-hand position prevents wagons from entering the port tracks – was then placed in its right hand position, while simultaneously the "movement permitted" signal was raised. Since points open was requested for the return journey also, the switch was not to be returned to its safety position immediately, but the tracks were to remain open until the return had been effected. When the request was made to the Signal control centre, the shunting foreman and his train set were far away from the signal and the points.

In connection with some shunting which was going on at the same time, a large number of wagons started to move. A scotch which had been set out failed to stop the wagons. Since the safety switch was in its right-hand position the wagons coasted onto the tracks to the port. The shunting foreman and the shunters managed to stop six wagons but the others continued at an increasing rate towards the port area. At 09.11 hrs and in two groups, these ran into a tank lorry with its trailer that was parked across the rails at the edge of the quay delivering diesel fuel to a vessel.

At the first impact the buffers of the first wagon were pressed into the front of the driver's cabin at the point where an electric cable led to the lorry's distribution box. The lorry driver, who had gone on board the vessel, returned to his lorry and switched off the current to the oil pumps. The lorry was then struck by several more wagons with the result that the trailer was pushed backwards and turned onto its side. The driver came under the trailer, was pulled along for a distance and then slipped over the edge of the quay into the water. He was helped up out of the water and taken by ambulance to hospital where it was found that his right arm was so badly injured that it had to be amputated. At the collision the trailer sprang a leak and diesel fuel ran out onto the quay and down into Lake Mälaren.

It has been impossible to establish with certainty how the wagons started to move. It is however clear that the accident became possible because a safety switch was not in the safety position, which in turn was because of the request to have it open before the train set that was to pass had driven up to the signal in question. Contributory circumstances were that there was no "fly shunting minder" in place during the shunting and that the scotch in position was unable to stop the moving wagons.

Better attention to the working environment in collaboration among those who were sharing the workplace the marshalling yard and the port area represent, would have afforded chances of predicting and preventing the accident. The investigation has also shown a need for clearer rules for how collaboration between track proprietors and traffic operators should be arranged where there is a need to take measures to increase safety and these measures affect all involved. Regarding rescue work, the apportionment of responsibility and tasks among the various actors needs to be clarified.

Recommendations

– The National Rail Administration in consultation with the Swedish Work Environment Authority should ensure that a coordinator is appointed and routines for work environment collaboration are established for the common workplace comprising Västerås Western marshalling yard and the port station connected with Västerås Port *(RJ 2002:01 R1)*.

– The National Rail Administration should, in consultation with traffic operators affected and Mälarhamnar AB, arrange for written routines to be established for rail traffic to and from the port station in Västerås *(RJ 2002:01 R2)*.

– The National Rail Administration / the Railway Safety Inspectorate should, through elucidation of current regulations or in another appropriate manner, clarify how collaboration should function and where the responsibilities should lie when points switching instructions or other provisions important for safety are to be amended or supplemented and such amendments/ supplements affect track owners and a number of traffic operators *(RJ 2002:01 R3)*.

– The National Rail Administration/the Railway Safety Inspectorate should check that Green Cargo is running its safety control through internal check-ups in such a way as to ensure that the regulations regarding fly-shunt minding, shunting movements from Västerås Western marshalling yard to the port and back, and those regarding the placing and storage of brake block shoes/scotches, are correctly observed *(RJ 2002:01 R4)*.

– The National Rail Administration/the Railway Safety Inspectorate should urge Mälarhamnar AB to supplement its safety instructions appropriately regarding the sidings for LPG and ammoniac handling respectively *(RJ 2002:01 R5)*.

– The Swedish Rescue Services Agency should prompt the Mälaren Valley Fire and Rescue Association, the County Administrative Board for Västmanland County, Västerås Municipality and Mälarhamnar AB to clarify the division of responsibility and work for the purpose of ensuring efficient co-operation in the event of similar accidents *(RJ 2002:01 R6)*.