

# Annual Report 2009

# Accident Investigation Board, Norway Railway Department

#### **Accident Investigation Board, Norway**

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#### Introduction

The Accident Investigation Board Norway (AIBN) is a multimodal organisation covering four transport modes, aviation, rail, road and marine. It was established in 1989 to investigate air accidents. In 2002 the AIBN's mandate was expanded to cover railway accidents, in 2005 road accident investigations were included, and in 2008 marine investigations were brought in to the organisation. The AIBN is an administrative agency under the Ministry of Transport and Communications.

Our investigations are entirely independent from the Norwegian Railway Authority (Statens jernbantilsyn), and are focused on safety improvement. The AIBN does not apportion blame or liability, nor do we enforce law or carry out prosecutions. The purpose of an AIBN investigation is to improve the safety of railways, and to prevent further accidents from occurring.

Rail accident investigation in Norway is subject to the Directive for the Accident Investigation Board Norway, laid down by the Ministry of Transport and Communications on 12 June 2002. The AIBN reports to the Ministry of Transport and Communications, but is an independent body as regards professional issues. The Directive states that the Ministry cannot instruct the agency in professional matters in those areas for which the AIBN is responsible.

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#### Regulation

Railway accident investigation in Norway is regulated in detail by the Norwegian Act of June 3<sup>rd</sup> 2005, No.34, relating to notification, reporting and investigation of railway accidents and railway incidents, and regulations stipulated pursuant to the Act.

EUs safety directive for railway was adopted and made official March 1<sup>st</sup> 2006 as Regulation 2006-03-31 nr 378. *Regulation for official investigation of railway accidents and serious incidents etc.* ("The Railway Investigation regulation").

#### **Accident Investigation Board Norway (AIBN) - Organisation**

The AIBN organisation was reorganised in 2009. A department (Staff) was formalized, and a director appointed. The competence of this department consists of specialists in human factors, technology and system safety. A specialist in QA systems and/or organisational matters will be employed in 2010.

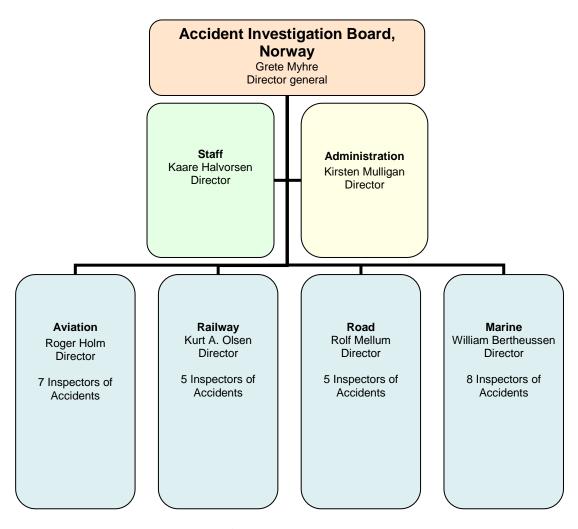


Figure 2: The AIBN organisation as of 31<sup>st</sup> December 2009.

#### Notifications of accidents and incidents - key numbers

On January 1<sup>st</sup> 2009, the Railway department was involved in 9 ongoing investigations.

The AIBN, Railway department received totally 198 notifications in 2009, compared to 272 notifications in 2008. In 2009 there has been a decrease in the number of notifications received by the AINB concerning both serious accidents and incidents. According to the Norwegian Railway Authority (responsible for official statistics), the total number of reported accidents and incidents is on the average level compared to the previous years.

11 accidents were registered with a total of 11 fatalities.

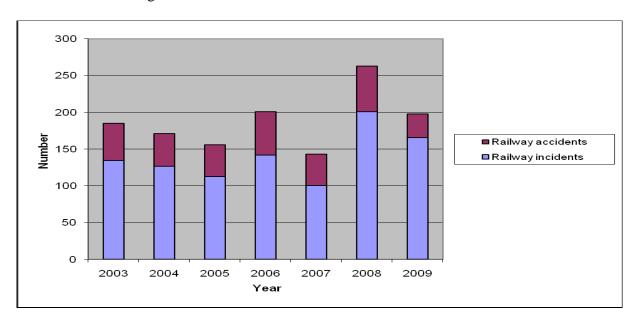


Figure 2: Key numbers, reported railway accidents and incidents.

	01.07.02	2003	2004	2005	2006	2007	2008	2009
Serious railway incidents	-	1	127	113	142	101	201	166
Railway accidents	-	1	44	43	59	42	62	32
Total number of cases	144	197	181	156	201	143	272	198
Closed after the preliminary investigation	-	184	173	156	190	144	266	187
Published reports	-	3	15	7	11	13	9	11

Table 1: Key numbers, reported railway accidents and incidents (not official statistics).

The Norwegian Railway Authority is the responsible body for the official national statistics regarding railway accidents and incidents.

#### Other activities

During 2009, several meetings have been arranged with the Norwegian Railway Authority, Infrastructure Managers and the operators. The meetings have focused on closing safety recommendations, accident reporting and classification etc.

The AIBN, Railway department carried out an external survey in 2009. The survey focused on the public opinion, the level of competence within the railway department regarding investigations and the exercise of our mandate. An electronic questionnaire was sent to authorities, infrastructure managers, operators, railway undertakers, other railway industry businesses, police, fire brigades, media etc. More than 170 replays were received and summarized in a report. The outcome of report has been dealt with by the AIBN management, and special items have been put on the list of actions for follow up.

The European Railway Agency (ERA) has established an European network for investigating bodies. The Accident Investigation Board Norway is participating. As a result of implementing the EUs safety directive, the Railway department is reporting its activities to ERA. A notification is sent for every initiated investigation, and final reports are also sent to ERA's public data base. Through this data base the AIBN Railway department has access to reports from other European investigating bodies.

Norway, Sweden, Denmark and Finland have formed a Nordic network of accident investigation boards (NRAI). The network organises two meetings per year, where the main focus is to inform each other about ongoing investigations, ERA network and task force meetings and any other business common to the Nordic Region. ERA is represented in the NRAI meetings as of 2009.

### Reports / recommendations

The Accident Investigation Board, Norway, Railway Section, published 11 reports in 2009. See appendix A for more details.

The Accident Investigation Board Norway, the Railway department, published 21 safety recommendations in 2009. According to the National Railway Authority 4 of these recommendations are still open as of January 1<sup>st</sup> 2010. An overview of the recommendations is given in appendix B.

# Appendix A - Published reports 2009

NR	IDENTIFICATION				
1	Class report fire and smoke development 2005 - 2007 – Oslo metro trains	15.01.2009			
2	Report derailment at Dalane stn., Sorlandsbanen, 23.01.2008. Passanger train type 72.	28.01.2009			
3	Class report level crossings 2005 – 2006.	02.04.2009			
4	Report derailment of two freight wagons at Skogn stn., Nordlandsbanen, 29.04.2008. Freight train 5795.	12.05.2009			
5	Report accident between Hval and Honefoss, Roa-Honefossbanen 25.07.2008. Freight train 5505.	02.07.2009			
6	Report serious incident, north of Stjordal stn., Nordlandsbanen 27.07.2008, passenger train 5722.	02.07.2009			
7	Report collision between tram and taxi in roundabout Parkveien – Henrik Ibsensgate, 29.08.2008. Oslo centrum.	21.09.2009			
8	Report serious incidentn Venjar-Oslo, Romeriksporten 31.08.2008, passenger train 3734.	08.10.2009			
9	Class report SPADS 2002 - 2008	26.11.2009			
10	Report collision between working engine 59007 and freight train 9909, Katterat stn., Ofotbanen 25.02.2009.	21.12.2009			
11	Report derailment Ortfjell stn., Nordlandsbanen 25.05.2009. Freight train 5960.	22.12.2009			

## **Appendix B - Safety recommendations 2009**

Report	Recommendation		
No.	No.	Text	Status
2009/02	2009/01	The Accident Investigation Board recommends that	Closed
		Statens jernbanetilsyn order Jernbaneverket toreview all	
		stations to see whether there are similar signal solutions	
		and put barriers in place to prevent trains from passing	
0000/00	0000/00	stop signals.	Olympia
2009/02	2009/02	The Accident Investigation Board recommends that	Closed
		Statens jernbanetilsyn order NSB AS to upgrade its	
		qualifications register for the service category train	
2009/02	2009/03	drivers.	Closed
2009/02	2009/03	The Accident Investigation Board recommends that	Ciosed
		Statens jernbanetilsyn to order Jernbaneverket to review	
2009/03	2009/04	and correct its operating manual.  The Accident Investigation Board recommends that the	Open
2000/00	2000/04	Statens jernbanestilsyn, Jernbaneverket and	Орон
		Vegdirektoratet jointly review and coordinate their rules	
		with a view to improving safety at level crossings.	
2009/03	2009/05	The Accident Investigation Board recommends that	Open
		Jernbaneverket and the Vegdirektoratet jointly review	- 1
		and coordinate their plans for the design and operation of	
		level crossings with a view to improving safety at	
		existing and future crossings.	
2009/03	2009/06	The Assident Investigation Deand Newvey recommends	Closed
2003/03	2003/00	The Accident Investigation Board Norway recommends that Statens jernbantilsyn requests Jernbaneverket and	Olosed
		railway undertakings to endeavour to ensure that an	
		assessment of road users' behaviour is included when	
		reporting undesirable incidents involving level crossings.	
2009/04	2009/07	The Accident Investigation Board Norway recommends	Closed
		that Statens jernbanetilsyn orders Jernbaneverket to	
		check whether other stations have corresponding	
		solutions with respect to cable interfaces between safety	
		systems and signal boxes, and implement measures to	
		prevent similar faults.	
2009/04	2009/08	The Accident Investigation Board Norway recommends	Closed
		that Statens jernbanetilsyn orders Jernbaneverket to	
		consider a cable connection solution that enables simpler	
		and safer disconnection of cables in order to perform	
		scheduled (generic) controls.	
2009/04	2009/09	The Accident Investigation Board Norway recommends	Closed
		that Statens jernbanetilsyn orders Jernbaneverket to	
		review the various systems and coordinate these so that	

		they may be used as an appropriate tool for following up maintenance tasks.	
2009/05	2009/10	The Accident Investigation Board Norway recommends that Statens jernbanetilsyn orders Jernbaneverket to assess whether the applicable regulations for inspection and testing of wooden sleepers, the defined threshold values and the prescribed measures for dealing with unfulfilled requirements are adequate and are practised as intended.	Closed
<u>2009</u> / <u>05</u>	2009/11	The Accident Investigation Board Norway recommends that Statens jernbanetilsyn orders Jernbaneverket to assess whether the guidelines, capacity and competence for processing and analysis of track examination results are sufficient to ensure a relevant form of information flow to operative personnel.	Closed
2009/06	2009/12	The Accident Investigation Board Norway recommends that Statens jernbanetilsyn order Jernbaneverket and railway operators to improve their alert procedures regarding information between the rail traffic controller and the train drivers.	Closed
2009/07	2009/13	The Accident Investigation Board Norway recommends that Statens jernbanetilsyn to orders Oslo Sporvognsdrift AS raising awareness among tram drivers of the problems presented by blind zones, resulting in reduced visibility when driving the SL95 tram.	Open
2009/07	2009/14	The Accident Investigation Board Norway recommends that Statens jernbanetilsyn orders Oslo Sporvognsdrift AS raising awareness of the traffic pattern of trams entering and traversing junctions and roundabouts.	Closed
2009/07	2009/15	The Accident Investigation Board Norway recommends that Statens vegevesen, Oslo commune – Samferdselsetaten og Statens jernbanetilsyn to assess the suitability of having a tram line traversing roundabouts.	Open
2009/07	2009/16	The Accident Investigation Board Norway recommends that Oslo commune – Samferdselsetaten and Statens jernbanetilsyn to assess alternative expedient warning systems for other road users, and the design of central islands in roundabouts.	Open
2009/09	2009/17	The Accident Investigation Board Norway recommends that Statens jenbanetilsyn orders Jernbaneverket to establish an overview of SPADs and make it available to the railway industry.	Closed
2009/10	2009/18	The Accident Investigation Board Norway recommends that Statens jernbanetilsyn orders Jernbaneverket to include measures to improve communication procedures between the traffic controller and the locomotive driver.	Closed

2009/10	2009/19	The Accident Investigation Board Norway recommends that Statens jernbanetilsyn orders Jernbaneverket to clarify the differences in terms of train operation	Closed
		between trains with train status and shunt status,	
2009/10	2009/20	The Accident Investigation Board Norway recommends that Statens jernbanetilsyn orders Jernbaneverket to establish systems that ensures that communication to and from the traffic control centre is securely stored.	Closed
2009/11	2009/11	The Accident Investigation Board Norway recommends that Statens jernbanetilsyn orders Jernbaneverket to establish barriers that prevent accidents and incidents at Ortfjell station, and other stations with similar simple signals.	Closed

The recommendations are translated from Norwegian. The Norwegian text remains the official version of the recommendations. Should ambiguity arise between the two, the Norwegian text takes precedence.