



REPUBLIC OF CROATIA
**AIR, MARITIME AND RAILWAY TRAFFIC
ACCIDENTS INVESTIGATION AGENCY**

NIB ANNUAL REPORT 2015

according to Article 23(3) of Directive 2004/49/EC

CLASS: 023-01/15-01/03
REG. No: 699-06/1-15-02
Zagreb, 21 September 2016

September 2016

PREFACE TO THE REPORT

A National Investigation Body operates in the Republic of Croatia – Air, Maritime and Railway Traffic Accidents Investigation Agency, Department for Railway Traffic Accidents Investigation – conducting independent investigation of the causes and circumstances of railway accidents and incidents according to Directive 2004/49/EC, the principles and requirements of which have been implemented into the national legislation. The objective of the investigation of the causes and circumstances of railway accidents and incidents is to increase the safety of railways.

This Annual Report is an annual report issued by the National Investigation Body of the Republic of Croatia, Air Maritime and Railway Traffic Accidents Investigation Agency, Department for Railway Traffic Accidents Investigation for 2015, pursuant to Art. 23(3) of Directive 2004/49/EC. It comprises information regarding:

- the National Investigation Body,
- the system of investigation of railway accidents and incidents,
- the investigations of accidents and incidents completed in 2015,
- the safety recommendations issued.

CONTENT

1	INTRODUCTION TO THE INVESTIGATION BODY	1
1.1	Legal Basis	1
1.2	Role and Aim	1
1.3	Organisation	1
1.4	Organisational flow	2
2	INVESTIGATION PROCESSES	2
2.1	Cases to be investigated	2
2.2	Institutions involved in investigations	2
2.3	Investigation process or approach of the NIB	3
3	INVESTIGATIONS	3
3.1	Overview of investigations completed in 2015, identifying key trends.....	3
3.2	Investigations completed and commenced in 2015	4
3.3	Research studies (or Safety Studies) commissioned and completed in 2015	5
3.4	Summaries of investigations completed in 2015	5
3.5	Comment and introduction or background to the investigations	5
3.6	Accidents and incidents investigated during last five years (in 2011-2015)	5
4	RECOMMENDATIONS	6
4.1	Short review and presentation of recommendations	6
4.2	Safety Recommendations	7

ANNEXES (if needed)

Annex 1. Investigations and Recommendations

1 INTRODUCTION TO THE INVESTIGATION BODY

1.1 *Legal Basis*

The process of the implementation of Directive 2004/49/EC into the national legislation of the Republic of Croatia was completed in 2013 with two legal Acts. The first Act is legal basis for establishing Air, Maritime and Railway Traffic Accidents Investigation Agency - AIA (national gazette NN 52/13). The second Act is legal basis for railway traffic accident investigation (national gazette NN 82/13).

Accidents and incidents are further divided into the following categories, reflecting their nature and consequences:

- serious accidents,
- accidents,
- incidents.

The accident and incident investigation performed by AIA is independent of any other party and independent of the investigation conducted by other bodies, especially judiciary investigation and the investigation of the causes and circumstances of accidents and incidents conducted by infrastructure managers or railway undertakings.

1.2 *Role and Aim*

Air, Maritime and Railway Traffic Accidents Investigation Agency, the National Investigation Body, was established on 29st July 2013. The mission is to guarantee independent investigation of the causes and circumstances of railway accidents and incidents. The national legislation of Republic of Croatia does not authorize AIA to investigate accidents and incidents within trams, trolleybuses and cable-ways.

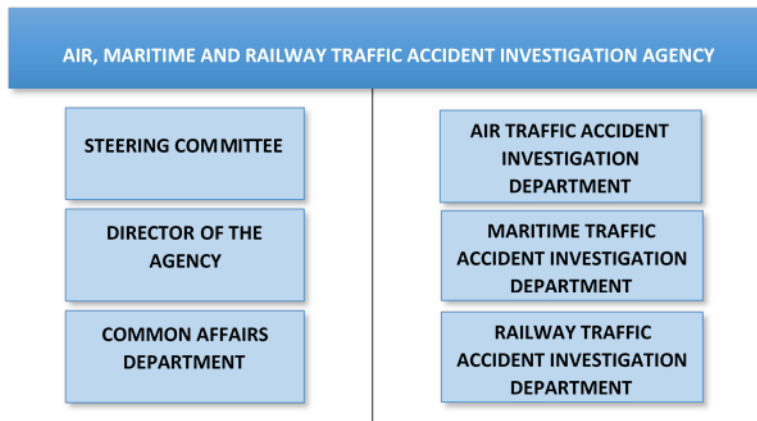
The main goal of AIA work is to prevent the occurrence of accidents and incidents. Therefore, AIA:

- investigates the causes and circumstances of rail accidents and incidents,
- issues reports and safety recommendations to railway undertakings, infrastructure managers, to the National Safety Authority or other authorities and parties.

1.3 *Organisation*

Air, Maritime and Railway Traffic Accidents Investigation Agency (AIA) – was established pursuant to the provisions of Act 52/2013. AIA is a multimodal institution; it has three independent departments for safety investigations. One of the departments is Department for Railway Traffic Accidents Investigation. The Department was established in April 2014. The Department currently has one investigator in charge and one senior railway advisor. Other two departments are Department for Air Traffic Accidents Investigation, and Department for Maritime Traffic Accidents Investigation.

Department for Railway Traffic Accidents Investigation is a national body investigating the causes of railway accidents and incidents independently of any other party and performing preventative inspections of railway safety. As an investigation body it is independent of any infrastructure manager, railway undertaking and regulatory body. The competences of Department include railways (main lines, regional lines, sidings).



1.4 Organisational flow

The structure of railway sector in Republic of Croatia and relationships among the parties involved are defined in Act 82/2013. The legislation applies to the railway transport systems (main lines, regional lines, sidings).

The bodies in the railway sector include Ministry for Transportation, Railway Safety Agency and AIA. Ministry for Transportation is in charge of the national railway legislation, including implementation of the EU railway legislation. Railway Safety Agency is the National Safety Authority carrying out certification and regulation of railway and railway transport operation, according to the national legislation. AIA is the National Investigation Body independent of any party in the railway sector.

All these authorities are involved in the system of maintaining and improving safety of railways and railway transport:

- **Ministry for Transportation** sets the framework by developing railway legislation.
- **AIA (NIB)** investigates railway accidents and incidents and issues safety recommendations.
- **Railway Safety Agency (NSA)** sets and adjusts safety rules for infrastructure managers and railway undertakings.

2 INVESTIGATION PROCESSES

2.1 Cases to be investigated

The national legislation of Republic of Croatia orders the National Investigation Body, in accordance with European principles, to investigate the causes and circumstances of serious accidents on main and regional lines, border railways and sidings.

When making decision whether to investigate or not, AIA takes into account the above mentioned legal requirements, as well as possibility to learn safety relevant lessons from the accident or incident.

2.2 Institutions involved in investigations

Following the occurrence of railway accident or incident, various parties may launch several independent investigations, depending on the occurrence's nature and consequences:

- **Infrastructure manager or railway undertaking** identifies the causes and circumstances of accident or incident, focusing on the drafting of preventative measures and the proposal of responsibility for the occurrence.
- **AIA** investigates the causes and circumstances of accident or incident with a focus on the determination of the causes and issue of preventative safety recommendation.
- **State Attorney and Police** investigate accident or incident with the aim of defining responsibility for the committing of offenses or criminal acts.

2.3 Investigation process or approach of the NIB

The objective of the investigation of the causes of railway accidents and incidents is to gain knowledge for the prevention of accidents and incidents, minimize the consequences and increase the safety of railways.

Investigation performed by the National Investigation Body of Republic of Croatia, Department for Railway Traffic Accident Investigation, focuses on the following aspects of each occurrence:

- independent investigation of the causes and circumstances of accident or incident (serious accidents and selected accidents and incidents only).

When notified about an accident or incident by an infrastructure manager or railway undertaking, Chief Investigator will decide whether it will immediately go to the accident-site or not. At the accident-site The Department will launch an independent investigation or just make onsite overview and make decision about launching an investigation later.

If The Department launches an investigation, it will notify The European Railway Agency within seven days, all parties involved in an event and NSA. The investigation of accident or incident may be launched immediately after the occurrence and/or later, in reaction to specific circumstances.

The Department will publish the conclusions of its investigation in Investigation Report, the structure of which is based on the requirements of Directive 2004/49/EC. If an accident or incident occurred without any violation of legislation or internal regulations of infrastructure manager and/or railway undertaking, The Department issues safety recommendation with the aim of preventing reoccurrence of the accident or incident. Safety recommendation is issued also if there are other findings relevant for the safety.

3 INVESTIGATIONS

3.1 Overview of investigations completed in 2015, identifying key trends

Trends of completed investigations.

Type of accidents investigated	Number of accidents	Number of victims		Damages in € (approx.)	Trends in relation to previous year
		Deaths	Ser. injury		
Collisions	3	0	0	<150.000	+100%
Derailments	2	0	0	<150.000	+50%
LC-accident	2	0	0	<150.000	+100%
Fire in RS	1	0	0	<150.000	+100%
Acc. to person	0	0	0	<150.000	+100%
Other	0	0	0	0	0%

3.2 Investigations completed and commenced in 2015

Investigations completed in 2015

Date of occurrence	Title of the investigation (Occurrence type, location)	Legal basis	Completed (date)
10 April 2014	Oriovac Station near miss, freight train No 45520, passenger train No 741	ii	20 February 2015
22 April 2014	Line Knin - Zadar Collision of a special train with rockslide, and derailment	ii	19 January 2015
2 July 2014	Line M202 Rijeka Zagreb, Collision with an obstacle, passenger train No 4059	ii	15 April 2015
22 July 2014	Line M102 near miss in station Dugo Selo, long-distance passenger train no 782 and commuter train no 8087	ii	23 October 2015
17 June 2014	Varaždin Station, Line R201,derailment of a wagon for special purposes	ii	03 January 2015
31 August 2014	Rijeka Station, Line M202, derailment of two wagons	ii	18 August 2015
4 September 2014	Varaždin Station, fire in a DMU	ii	18 May 2015
11 September 2014	Zagreb Central St., collision in the rolling stock workshop	ii	15 April 2015
19 September 2014	Collision on a level crossing in city of Krapina	ii	02 April 2015
12 January 2015	Collision on a level crossing in village Kupinec	li	22 December 2015

Basis for investigation: i = According to the Safety Directive, ii = On national legal basis (covering possible areas excluded in Article 2, §2 of the Safety Directive), iii = Voluntary – other criteria (National rules/regulations not referred to the Safety Directive).

Investigations commenced in 2015

Date of occurrence	Title of the investigation (Occurrence type, location)	Legal basis
12 January 2015	Collision on a level crossing in village of Kupinec	ii
10 November 2014	Sisak Station, derailment of a shunting locomotive	ii
27 February 2015	Village of Kosovo, collision on a level crossing near factory Knauf	ii
19.Mart 2015	Collision of a passenger train with an obstacle	ii
30 June 2015	Run over of a marshalling a worker in the Station Split Predgrađe	i
10 July 2015	Collision on a LC near town of Žminj	i
02 November 2015	Line M101, a passenger train hit a railway worker	ii
28 December 2015	City of Bjelovar, collision on the LC Male Sredice	i

Basis for investigation: i = According to the Safety Directive, ii = On national legal basis (covering possible areas excluded in Article 2, §2 of the Safety Directive), iii = Voluntary – other criteria (National rules/regulations not referred to the Safety Directive).

3.3 Research studies (or Safety Studies) commissioned and completed in 2015

Safety Studies completed in 2015

Date of commission	Title of the Study (Occurrence type, location)	Legal basis	Completed (date)
	none		

Basis for investigation: i = According to the Safety Directive, ii = On national legal basis (covering possible areas excluded in Article 2, §2 of the Safety Directive), iii = Voluntary – other criteria (National rules/regulations not referred to the Safety Directive).

Safety Studies commenced in 2015

Date of commission	Title of the Study (Occurrence type, location)	Legal basis
	none	

Basis for investigation: i = According to the Safety Directive, ii = On national legal basis (covering possible areas excluded in Article 2, §2 of the Safety Directive), iii = Voluntary – other criteria (National rules/regulations not referred to the Safety Directive).

3.4 Summaries of investigations completed in 2015

See the Annex of the Report.

3.5 Comment and introduction or background to the investigations

Investigations commenced in 2015 and not followed

Date of occurrence	Title of the investigation (Occurrence type, location)	Legal basis	Reason of non-following or suspension of investigations	Who, why, when (decision)
	none			

Basis for investigation: i = According to the Safety Directive, ii = On national legal basis (covering possible areas excluded in Article 2, §2 of the Safety Directive), iii = Voluntary – other criteria (National rules/regulations not referred to the Safety Directive).

3.6 Accidents and incidents investigated during last five years (in 2011-2015)

Rail investigations completed in 2011–2015

Department for railway traffic accidents investigation has become operational in 2014 so first investigation was opened in 2014

The table groups investigations by year of their completion.

Accidents investigated		2011	2012	2013	2014	2015	TOT
Serious accidents (Art 19, 1 + 2)	Train collision	0	0	0	0	1	1
	Train collision with an obstacle	0	0	1	0	2	2
	Train derailment	0	0	0	1	2	3
	Level-crossing accident	0	0	0	0	2	2
	Accident to person caused by RS in motion	0	0	0	0	0	0
	Fire in rolling stock	0	0	0	0	1	1
	Involving dangerous goods	0	0	0	0	0	0
Incidents		0	0	0	0	0	0
TOTAL		0	0	0	1	8	9

4 RECOMMENDATIONS

4.1 Short review and presentation of recommendations

A safety recommendation can be issued only on a basis of an independent investigation performed by The Rail Safety Inspection Office (NIB). Safety recommendation is usually issued when an accident occurred without any violation of legislation or internal regulations of infrastructure manager and/or railway undertaking, or if there are other findings relevant for the safety.

According to national legislation, safety recommendations are not legally binding. When a recommendation is issued, railway undertakings and infrastructure managers are obliged to adopt their own preventative safety measures based on the safety recommendation issued.

Implementation of recommendations during 2011 – 2015

Recommendations issued		Recommendation implementation status					
		Implemented		In progress		Not to be implemented	
Year	[No.]	[No.]	[%]	[No.]	[%]	[No.]	[%]
2011	0	0	0	0	0	0	0
2012	0	0	0	0	0	0	0
2013	0	0	0	0	0	0	0
2014	4	2	50%	2	50%	0	0
2015	4	0	0%	3	67%	1	33%
TOTAL	8	2	25%	5	62,5%	1	12,5%

Accidents with safety recommendations issued in 2011 – 2015

Date of occurrence	Title of the investigation (Occurrence type, location)	Status of implem.	Completed (date)
11 July 2014	Derailment of a rolling stock near station Mad-jarevo	Not implemented	22 December 2014

Date of occurrence	Title of the investigation (Occurrence type, location)	Status of implem.	Completed (date)
19 September 2014	Collision on level crossing in city of Krapina SP 1/14	implemented	02 April 2015
19 September 2014	Collision on level crossing in city of Krapina SP 2/14	accepted	02 April 2015
19 September 2014	Collision on level crossing in city of Krapina SP 3/14	accepted	02 April 2015
19 September 2014	Collision on level crossing in city of Krapina SP 1/15	accepted	02 April 2015
22 June 2014	Line M102 near miss in station Dugo Selo, long-distance passenger train no 782 and commuter train no 8087 SP3/15	accepted	23 October 2015
4 September 2014	Varaždin Station, fire in DMU	accepted	18 May 2015
12 January 2015	Collision on a level crossing in village Kupinec	Not implemented	22 December 2015

4.2 Safety Recommendations

No of the recommendation: SP	
Date of occurrence	Title of the investigation
11 July 2014	Derailment of a rolling stock near station Madjarevo
<p>Addressed to the Ministry of Maritime Affairs, Transport and Infrastructure.</p> <p>To improve the safety of the railway system, it's necessary to expand the definition of a Railway Undertaking in the Act on Safety and Interoperability of the Rail System in accordance with Railway Safety Directive 2004/49 /EC, in such way to ensure that the safety of the complete railway system respects every organization that uses rail infrastructure, which cannot be excluded on the basis of Article 2. Paragraph 2 of Directive 2004/49 / EC, regardless of whether the transport is the primary business of the organization or not.</p>	

No of the recommendation: SP 1/14	
Date of occurrence	Title of the investigation
19 September 2014	Collision on level crossing in city of Krapina
<p>Addressed to Croatian Roads Ltd., The Road infrastructure manager.</p> <p>Hrvatske ceste d.o.o. (Croatian Roads Ltd., The Road infrastructure manager) should displace traffic signs which informs road vehicle drivers they are approaching level crossing in such order, that the level crossing light signals should be visible to drivers.</p>	

No of the recommendation: SP 2/14	
Date of occurrence	Title of the investigation
19 September 2014	Collision on level crossing in city of Krapina
<p>Addressed to the railway Infrastructure manager HŽ Infrastruktura and Croatian Roads Ltd., The Road infrastructure manager.</p> <p>Infrastructure manager (HŽ Infrastrukutra) and Hrvatske ceste d.o.o. (Croatian Roads Ltd.) should reprogram traffic lights (semaphore) at the pedestrian road crossing in close vicinity of this level crossing in such order that it shows flashing yellow light when the railway level crossing signal is active</p>	

No of the recommendation: SP3/14	
Date of occurrence	Title of investigation
19 September 2014	Collision on level crossing in city of Krapina
<p>Addressed to Department of Transport and utility infrastructure Krapina-Zagorje County and Croatian Roads Ltd.</p> <p>Croatian Roads Ltd. and the Department of Transport and utility infrastructure Krapina-Zagorje County should determine the maximum length of vehicles that must pass subject crucifixion, because it is evident that the vehicle length of 14m and can no longer be in a single pass cross the level crossing and turn right from the hills in the street Ivana Rendića., and define bypass routes for such vehicles.</p>	

No of the recommendation: SP 1/15	
Date of occurrence	Title of the investigation
19 September 2014	Collision on level crossing in city of Krapina
<p>Addressed Infrastructure manager</p> <p>HŽ Infrastruktura should install an automatic device for closing road traffic on this level crossing (half-barriers).</p>	

No of the recommendation: SP 2/15	
Date of occurrence	Title of the investigation
04 September 2014	Fire in a DMU in the Station Varaždin
<p>Addressed: NSA</p> <p>Maintenance Companies during an inspection of electrical installations in railway vehicles should implement inspection method which includes inspection of electrical installations in working</p>	

conditions, with technique like thermal camera or similar (chapter 8.5).

No of the recommendation: SP 3/15	
Date of occurrence	Title of the investigation
22 July 2014	Near miss in the Station Dugo Selo
<p>Addressed: NSA</p> <p>Through its processes Infrastructure Manager and Railway Undertakings, in the SMS should ensure that human capabilities and limitations and the influences on human performance are addressed by applying human factors knowledge and using recognised methods (chapters 8.5.2 and 8.6).</p>	

No of the recommendation: SP 6/15	
Date of occurrence	Title of the investigation
12 January 2015	Collision on the level crossing Kupinec
<p>Addressed: Local road infrastructure manager</p> <p>Local Maintenance Company should keep the plants next to the road near the level crossing in the shape that the traffic signs are visible to road users.</p>	

ACCIDENTS SUMMARY

Grade: incident

Date and time: 10 April 2014, 09:13 (07:13 GMT).

Occurrence type: near miss.

Description: On Thursday, 10 April 2014 at approximately 9:13 hours an incident happened in the train station Oriovac near Slavonski Brod in eastern Croatia – near miss of passenger and cargo train. This incident occurred during the scheduled closure of the left (south) track on the double track line between station Nova Kapela/Batrina and Sibinj, so all traffic was running just on the north track, with special traffic procedures in force. Cargo train driving westbound was cleared to enter to the station's 3rd running line. At the same time, eastbound driving passenger train, while driving on irregular (north) line, didn't stop at station entry signal as it was supposed to, and entered the same running line as cargo train from the opposite direction, without previously obtaining entry clearance.

Type of train: Passenger and freight trains;

Location: line No M104 station Oriovac;

Parties: HŽ Infrastruktura d.o.o. (IM);
HŽ Cargo (RU) and HŽ Putnički prijevoz (RU).

Consequences: no consequence;

Direct cause: passenger train didn't stop near read signal.

Recommendations: no safety recommendation

Grade: accident

Date and time: 22 April 2014, 15:00 (13:00 GMT).

Occurrence type: collision of a train with obstacle.

Description: On 22 April 2014 at around 15:00 hours, during trafficking of a train for special purpose on railway section M606 Zadar-Knin, between stations Kistanje and Knin in the village Oćestovo, there was a collision of the train with a landslide of rocks, as a consequence two rail vehicles derailed. In the Accident nobody was injured, but material damage was caused.

Type of train: special train;

Location: line No M606 Zadar - Knin; km 5+700

Parties: HŽ Infrastruktura ltd (IM); Pružne građevine ltd (rail infrastructure Maintenance Company)

Consequences: material damage on the train;

Liite 1/2 ()

Direct cause:	landslide.
Recommendations:	no safety recommendation
Grade:	accident
Date and time:	02 June 2014, 10:55 (08:55 GMT).
Occurrence type:	collision of a train with machinery on the line.
<i>Description:</i>	On July 2 th , 2014, on the line M 202, in km, 521 + 000 there was an accident in which train number 4059 hit trolley that was put the truck. The trolley that was hit by the train hit a worker and worker suffered serious injuries;
Type of train:	passenger train;
Location:	line No M202 Rijeka - Zagreb; km 521+000;
Parties:	HŽ Infrastruktura ltd (IM); HŽ Putnički prijevoz ltd (RU) and Pružne građevine ltd (rail infrastructure Maintenance Company);
Consequences:	rail maintenance worker was seriously injured and on the train there was some material damage;
Direct cause:	inefficient communication between traffic controller and headmen about place from where the train is coming;
Recommendations:	no safety recommendation.
Grade:	accident.
Date and time:	17 July 2014,, 08:30 (6:30 GMT).
Occurrence type:	derailment of wagon for special purposes
<i>Description:</i>	In the station Varaždin, at km 0 + 023, there was a derailment of wagons for special purposes Series on both axles. By the derailment occurred when manoeuvring at low speed driving on storage sidings. Slipped wagon was the last part of the 3 wagon, pulled by maintenance rail vehicle
Type of train:	special train;
Location:	line NO. R-201 , station Varaždin km 000+023;
Parties:	Pružne građevine d.o.o.;
Consequences:	less damage to infrastructure;
Direct cause:	maneuvering drive train with braked wagon, slipped wagon while driving had fastened parking brake which made it impossible autotune foot shaft, which caused the derailment of the wagon.
Recommendations:	no safety recommendations

Grade: accident

Date and time: 31 August 2014, 14:40 (12:40 GMT).

Occurrence type: derailment of rolling stocks.

Description: On 31 August 2014, at 14:40, in the marshaling yard in port of Rijeka there has been derailment of two rolling stocks.

Type of train: freight train;

Location: Station Rijeka;

Parties: HŽ Infrastruktura ltd (IM) and HŽ Cargo ltd (RU),

Consequences: some material damage on the infrastructure;

Direct cause: was the failure to secure the road path of the train in a way that switch number 140 was not secured properly. Due that, during the passage of shunting composition over the switch, the switch uncontrollably dislocated which resulted in the derailment of wagon No. 4 and 5.

Recommendations: no safety recommendation.

Grade: accident

Date and time: 11 September 2014, 13:00 (11:00 GMT).

Occurrence type: collision in maintenance workshop.

Description: On 11 September 2014, at 13:00, in workshop "Graba" a collision of rail vehicles happened.

Type of train: shunting composition;

Location: Station Zagreb Glavni kolodvor;

Parties: HŽ Infrastruktura ltd (IM) and Održavanje vagona ltd (the passenger wagons maintenance company),

Consequences: material damage on vehicles and infrastructure;

Direct cause: was speed of the shunting composition that was too big for friction conditions of the track;

Recommendations: no safety recommendation.

Grade: accident

Date and time: 18 September 2014, 13:15 (11:15 GMT).

Occurrence type: collision on a level crossing in City of Krapina.

Description: On 18.09.2014, at 13:15, on the Level Crossing in centre of the city of Krapina there was a collision of truck and DMU.

Liite 1/4 ()

Type of train:	passenger diesel multiple unit;
Location:	city of Krapina, open line R106 Zabok Đurmanec;
Parties:	HŽ Infrastruktura ltd (IM) HŽ Putnički prijevoz (RU) and Saponia Osijek (detergent manufacturing company, the owner of the truck);
Consequences:	material damage on vehicles and infrastructure;
Direct cause:	the truck didn't stop in front of level crossing in spite warning signals from rail signalling announcing the train arrival;

Recommendations:

SP1/14 Hrvatske ceste d.o.o. (Croatian Roads Ltd., The Road infrastructure manager) should displace traffic signs which informs road vehicle drivers they are approaching level crossing in such order, that the level crossing light signals should be visible to drivers.

SP2/14 Infrastructure manager (HŽ Infrastruktura) and Hrvatske ceste d.o.o. (Croatian Roads Ltd.) should reprogram traffic lights (semaphore) at the pedestrian and road crossing in close vicinity of this level crossing in such order that it shows flashing yellow light when the railway level crossing signal is active.

SP3/14 Odsjek za promet i komunalnu infrastrukturu Krapinsko-zagorske županije (Local road infrastructure manager.) and Hrvatske ceste should determine the maximum length of road vehicles that shall not pass this level crossing, because of the evident fact that road vehicles with length over 14 m cannot pass this level crossing in one instance, because of special configuration of the road and level crossing.

SP1/15 Infrastructure manager, HŽ Infrastruktura ltd, should install automatic half-bailers on this level crossing.

Grade:	accident
Date and time:	04 September 2014, 12:50 (10:50 GMT);
Occurrence type:	fire in a DMU;
Description:	On 04 September 2014, at 12:50, in the Station Varaždin there was a fire in a diesel multiple unit;
Type of train:	passenger train;
Location:	Station Varaždin;
Parties:	HŽ Infrastruktura ltd (IM) and HŽ Putnički prijevoz ltd (RU),
Consequences:	material damage on the DMU;
Direct cause:	was malfunction of electrical installation in the DMU;

Recommendations:

SP 2/15: Maintenance Companies during an inspection of electrical installations in railway vehicles should implement inspection method which includes inspection of electrical installations in working conditions, with technique like thermal camera or similar.

Grade: incident;

Date and time: 22 June 2014, 21:18 (19:18 GMT);

Occurrence type: near miss in the Station Dugo Selo;

Description: On Sunday 22th June 2014, at approximately 21:20 hours (hrs), on the double line track M102 Zagreb Main Station - Dugo Selo Station, near the exit of the station Dugo Selo in the direction of Zagreb, a near miss of the two passenger trains occurred. Train no. 782 stopped on exit switch, when train driver noticed another train, number 8087, which was stopped at red signal at entry signal for the Station Dugo Selo, coming from opposite direction (chapter 7.1).

Type of train: passenger trains;

Location: Station Dugo Selo;

Parties: HŽ Infrastruktura ltd (IM) and HŽ Putnički prijevoz ltd (RU);

Consequences: no consequence;

Direct cause: is dispatching the Train No. 782 for a drive on the wrong side track without previously securing conditions for safe dispatch in accordance with the provisions of the Traffic Regulations of the Croatian Railways (chapter 8.7);

Recommendations:

SP 3/15: Through its processes Infrastructure Manager and Railway Undertakings, in the SMS should ensure that human capabilities and limitations and the influences on human performance are addressed by applying human factors knowledge and using recognised methods (chapters 8.5.2 and 8.6).

Grade: accident;

Date and time: 12 January 2015, 09:52 (07:52 GMT);

Occurrence type: collision on level crossing in village of Kupinec;

Description: On 12 January 2015 at 09:52 hours, at the level crossing in the area of City of Samobor, between villages of Kupinec and Pavučnjak, on line M202, there was a collision of passenger train number 703 and a truck. The accident caused the interruption of train and road vehicle traffic.

Type of train: passenger train;

Location: Open line, M 202 Rijeka - Zagreb;

Parties: HŽ Infrastruktura ltd (IM), HŽ Putnički prijevoz (RU) and a private truck company;

Consequences: big material damage on the train and the truck;

Liite 1/6 ()

Direct cause: the truck didn't stop in front of the level crossing;

Recommendations:

SP 6/15 Local Maintenance Company should keep the plants next to the road near the level crossing in the shape that the traffic signs are visible to road users.