MINISTRY OF INFRASTRUCTURE AND CONSTRUCTION

National Railway Accident Investigation Committee

ANNUAL REPORT 2015

ON ACTIVITY OF THE NATIONAL RAILWAY ACCIDENT INVESTIGATION COMMITTEE

Approved by:

Signature on the original counterpart

Tadeusz Ryś

President of the National

Railway Accident Investigation Committee

4 Chałubińskiego St., 00-928 Warsaw

tel.: (022) 630 14-33, fax.: (022) 630 14-39, e-mail: pkbwk@mib.gov.pl

Emergency contact number 510 126 711

TABLE OF CONTENTS

1. Introduction on activity of the National Railway Accident Investigation Committee

1.1 Legal basis for the Committee's activity and its tasks

The independent and permanent National Railway Accident Investigation Committee („Committee") operates at the Minister with responsibility for transport. Establishment of the Committee resulted from transposition of Directive 2004/49/EC of the European Parliament and of the Council of 29 April 2004 („Directive") on safety of the Community's railways. Pursuant to Art. 21 each Member State shall ensure that investigations of accidents and incidents are conducted by a permanent body, independent functionally, organizationally and in its decision-making form, from any safety authorities, rail regulators, railway undertakings, infrastructure managers and all other parties, whose interests would be contrary to operations undertaken by the investigation body. In Poland, the National Investigation Body as provided for in the Directive is the National Railway Accident Investigation Committee („Committee"). The Committee is fully independent in organizational and legal terms, from the entities stipulated in Art. 21 of the Directive, and it is represented outside by its President.

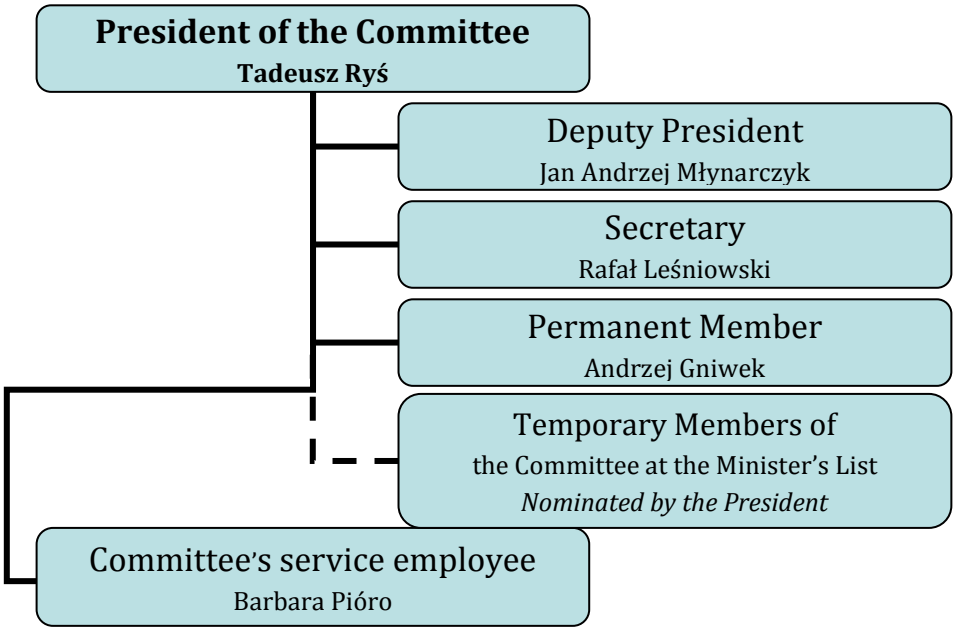
Pursuant to provisions of Chapter 5a of the Act dated 28 March 2003 on Railway Transport (uniform text: Journal of Laws Dz. U. of 2005, item 1297, as amended), the Committee carries out its tasks on behalf of the Minister with responsibility for transport. It conducts proceedings after each serious accident that took place in the railway network, having obvious influence on railway safety regulations or safety management, excluding a situation, when a rail vehicle hits persons crossing the track. Within the scope of its activity, the Committee carries out investigations intended to identify the causes and circumstances of occurrences and to draw preventive conclusions. Furthermore, the Committee can also conduct a proceeding in relation to accidents or incidents that would be serious accidents in slightly different conditions, ceasing operation of the structural subsystems or interoperability constituents of the trans-European high-speed rail system and the trans-European conventional rail system. This the President of the Committee who makes the decision to undertake the proceedings.

Members of the Committee hold cards authorizing them to carry out their duties at the accident place, pursuant to the Regulation of the Minister of Transport of 21 February 2007 on the PKBWK member card template (Journal of Laws Dz.U. of 2007 r. no 41, item 269). When the Committee carries out the proceedings, it draws up a report complying with the Regulation of the Minister of Transport of 19 February 2007 on contents of the serious accident, accident or incident proceedings report (Journal of Laws Dz.U. of 2007 r. no 41, item 268, as amended).

1.2 Committee's organizational structure

As of 12/31/2015, the Committee was composed of 4 permanent members, including the President, Deputy President, Secretary and one Committee's service employee carrying out administration and office duties, taking care of the office of the President of the Committee. The Committee is seated in the Ministry of Infrastructure and Construction in Warsaw, 4 Chałubińskiego St., and according to Art. 28D para 2 of the Act, HR, financial, social and administrative issues of the Committee are dealt with by adequate organizational units of the Ministry.

Pursuant to provisions of §4(1) of the Terms and Regulations for operation of the National Railway Accident Investigation Committee (Attachment to the Order No 59 of the Ministry of Infrastructure of 11 December 2008, item 75), the President of the Committee coordinates implementation of its tasks, ensures proper work organization, its efficient activity and represents the Committee outside.



As of 12/31/2015

2. Forms of proceedings carried out by the Committee and the President's supervision over works performed by railway committees in 2015

In 2015, the Committee carried out proceedings in serious accidents, accidents and incidents in the following forms:

1. *The proceedings carried out by an accident investigation team called by the President of the Committee* - when it comes to this form, the President of the Committee nominates an accident investigation team leader, with whom he agrees on an accident investigation team composition, choosing from permanent and temporary members of the Committee. The Committee's accident investigating team conducts the proceedings related to the occurrence directly. In this case, the proceedings result in drawing up a Report, which is approved by the Committee by way of resolution.

In 2015, the Committee's President made two decisions on the Committee's undertaking the proceedings and calling the accident investigation team in case of the following occurrences:

1) A21 cat. serious accident that took place on 6/3/2015 at 15.45 at cat. D level crossing, 36,658-kilometer of the railway line No 207,
2) A18 cat. serious accident that took place on 7/11/2015 at 17.10 at cat. D level crossing, 23,506-kilometer of the railway line No 017.

Detailed information on the proceedings carried out in relation to those occurrences can be found further in the Report.

2. *Direct participation of the Committee member in works of the railway committee* - was applied first of all if it was suspected that the accident may have been caused by wrongful operation of the railway traffic safety management system, in case of which the proceedings are not carried out by the Committee's accident investigation team.

Pursuant to §10(3) of the Regulation, the President of the Committee could nominate a Committee member (permanent or temporary) as a president of local or facility railway committee.
In 2015, President of the Committee did not exercise this right.

3. *Direct supervision over occurrences* - was applied in case of some occurrences, especially in situations, when there was a justified suspicion that the railway committee can have certain problems with identification of causes, circumstances or a category of the occurrence. Within the scope of direct supervision, permanent members of the Committee took part in the railway committee's meetings watching the performed proceedings.

In 2015, joint meetings of the Committee and railway committees took part in the PKBWK office in Warsaw, and there were numerous cases of external meetings of the President and other members of PKBWK and railway committees, outside the Committee's office, among others in places of the occurrences, connected with visual inspections, tests and measurements supervised by the Commission, and analysis of documentation related to the occurrences.

4. *General supervision over occurrences* - within the scope of this supervision, in 2015, the Committee verified documentation of each occurrence, starting with an analysis of the notification about the occurrences and ending with an analysis of the final findings protocol. In individual cases, when the local or facility railway committee failed to suggest potential causes or failed to determine the occurrence category in the occurrence notification, the PKBWK President applied to provide the Committee with a protocol for visual inspection of the site and other documents related to the occurrence, in order to make adequate decisions.

3. Occurrences between 1 January and 31 December 2015

3.1 Occurrences reported to the Committee by obliged entities.

As of 12/31/2015, the obligation for immediate reporting of serious accidents, accidents and incidents on railway lines to the Committee by railway undertakings and infrastructure managers was stipulated in Art. 28G of the Act, and the obligation to submit a written notification by the manager was provided for in §(1-5) of the Regulation of the Minister of Transport dated 30 April 2007 (Journal of Laws Dz. U. No. 89, item 593).

As of the day of drawing up this Annual Report, the Regulation mentioned above was replaced with the Regulation of the Minister of Infrastructure and Construction of 16 March 2016, on serious accidents, accidents and incidents in railway transport (Journal of Laws Dz.U. of 2016, item 369).

The Act and Regulation established a separation into the following types of occurrences in railway transport:

1) serious accident - an accident caused by a collision, derailment of a train or by another similar occurrence with at least 1 fatality or 5 heavily injured (a heavily injured - a person staying in a hospital for more than 24h as a result of the accident), or resulting in major damages to the rail vehicle, railway infrastructure or surroundings, which can be estimated by the Committee to amount up to at leas 2 mln Euro, **exerting obvious influence on railway safety regulations or safety management.**
2) accident - unintended, sudden occurrence or a chain of such occurrences with participation of a rail vehicle, causing negative consequences for human health, property or environment;

accidents include especially: collisions, derailments, level crossing accidents, accidents to persons caused by a rail vehicle in motion or fire of a rail vehicle.

3) incident - means any occurrence other than accident or serious accident, associated with the operation of trains and affecting the safety of operation.

Between 1 January and 31 December 2015, the Committee was informed about **1152** railway occurrences according to the classification stipulated in the Regulation, out of which there were: 2 serious accidents, 629 accidents and 521 incidents.

The number and structure of occurrences, divided into categories, are presented in the tables below, No 2 and 4.

Table No 3 presents the number of persons injured in the occurrences in 2015

Table No 2- Occurrences reported to the Commission in 2015, in comparison to 2014.

Type of occurrence (SA - serious accident, A - accident, I - incident)	**2014**	**2015**	**Change 2015/2014**
SA (cat. A)	**1**	**2**	**+100%**
A (cat. B)	**672**	**629**	**-6.4 %**
I (cat. C)	**346**	**521**	**+50.5%**
Total	**1019**	**1152**	**on average +13.0%**

Table No 3 - The injured in the occurrences in 2015, in comparison to 2014.

Injured	**2014**	**2015**	**Change 2015/2014**
Fatalities	**208**	**227**	**+9.1%**
Severely injured	**93**	**109**	**+17.2%**
Total	**301**	**336**	**on average +11.6%**

3.2 Occurrences, in relation to which the Committee carried out direct proceedings reported to the European Railway Agency.

3.2.1 Cat. B10 accident that took place on 8/31/2014 at 16.17 at the 12,629-kilometer point of the railway line No 100, at the Kraków Prokocim - Kraków Płaszów section

On 8/31/2014, at 16.47, while entering the Kraków Płaszów station, KPa region, train No 344026/7 on the Podłęże - Dąbrowa Górnicza Towarowa route, pursuant to the enable signal S10 displayed by the home semaphore F2, on the confirmed route, the ET41-144 railway engine derailed with its three axes of the second section, towards the direction of motion (section B). The derailment took place on the track at the left curve, with radius of 474 meters. Front of the train stopped in the KPa region, behind the turnout No 151 at the 12.180-kilometer point, while the end of the train remained at the 12.802-kilometer point. The derailed railway engine moved for 432 meters, damaging the surface, railway traffic control system devices, contact line and the terminal support of the gate. As a result of motion in a derailed condition, also the railway engine became damaged, to the extent rendering further travel impossible. The first mark of the right wheel from the fifth wheelset climbing up the right rail, looking towards the direction of motion, was identified at the 12.629-kilometer point. Further there was a trace of the right wheel's running on the rail head for 6 m, and afterwards a mark of the right and left wheel included in the fifth axis falling down on the right side. Derailment of the remaining wheels at the sixth and seventh axis took place at the turnout No 151. Speed of the train at the moment of the occurrence was about 20 km/h, with permissible timetable speed V=50 km/h. The wheelsets of the train section A and none of the 42 cars in the train were not derailed. PKBWBK President - Mr. Tadeusz Ryś, pursuant to Art. 28E para 3 point 4 of the "Act on Railway Transport (uniform text: Journal of Laws Dz. U. of 2013, item 1594, as amended) by way of a decision No PKBWK-0780-12/BP/15 dated 12 February 2015, nominated the Accident Investigation Team ("Team") operating within the framework of PKBWK, to determined the causes of the accident in question.

The Committee reported commencement of the proceedings related to the event to the European Railway Agency on 19 February 2015 (ERAIL database No PL-4725).

The Committee completed the proceedings related to the investigated event by way of resolution No 04/PKBWK/2015 dated 27 July 2015, and published the report No PKBWK/1/2015, specifying the causes of the occurrence and issuing 10 recommendations on improvement of safety. Full content of those recommendations, together with description of their implementation by the interested entities can be found in the Attachment to this Report.

3.2.2 Cat. A21 serious accident that took place on 6/3/2015 at 15.45 at cat. D level crossing, 36,658-kilometer of the railway line No 207

On 6/3/2015 at 15.45, the passenger train No APM 59715 traveling the Toruń Główny - Grudziądz route, operated by a railbus, type SA106-012 (EVN No 95-51-2810-041-4 PL ARP), owned by a railway undertaking ARRIVA RP Sp. z o.o., at the "D" cat. level crossing situated at the Kornatowo - Grudziądz Mniszek section, plain line No 1, 36,658-kilometer point of the railway line No 207: Toruń Wschodni - Malbork, hit a passenger car, Volkswagen Sharan.

The car entered the level crossing mentioned above from the right, and was hit in the left back doors by the front of the railbus.

The rail vehicle drive gave the Rp1 signal "Warning" and while continuing to travel at a speed of 96 km/h (permissible speed was 100 km/h) towards the level crossing at the 36,658-Kilometer point, he spotted a passenger car - Volkswagen Sharan - entering the level crossing.

Bearing in mind the emerging situation, the employee trained for a train driver gave the Rp1 signal "Warning" again and implemented the immediate braking procedure.

At a speed of 93 km/h, the rail vehicle hit the passenger car with its left bumper in the left back door, turning the car around by 180°.

The hit passenger car was pushed from the level crossing, to the left side of the track, towards the direction of travel, and into the drain channel, and afterwards the force of impact threw the car into the telecommunication pole situated at 36,678-kilometer point.

The occurrence resulted in 2 fatalities and 2 severely injured persons. The passenger car was totally destructed.

The Committee reported commencement of the proceedings related to the event to the European Railway Agency on 19 June 2015 (ERAIL database No PL-4802).

The Committee completed the proceedings related to the investigated event by way of resolution No 07/PKBWK/2015 dated 15 December 2015, and published the report No PKBWK/2/2015, specifying the causes of the occurrence and issuing 14 recommendations on improvement of safety. Full content of those recommendations, together with description of their implementation by the interested entities can be found in the Attachment to this Report.

3.2.3 Cat. A18 serious accident that took place on 7/11/2015 at 17.10 at cat. A level crossing, 23,506-Kilometer point of the railway line No 017

On 11 July 2015, at 17:06:15, a crossing keeper using the SCP-2 system confirmed reception of a notification on a train No 45104 approaching on track No 2. At 17:06:35, he entered information into the SCP-2 system that the train No 11518 crossed the level crossing at 23,506-kilometer point, on track 2, towards the Gałkówek station. At 17:06:44, the crossing keeper entered information into the SCP-2 system that the crossing level is closed for the train No 65111, and at 17:06:50 that it is also closed for train No 45104.

Afterwards, without stopping at the Żakowice station, the fast train No 45104 crossed the crossing line at 23,506-kilometer point, on track No 2, towards the Gałkówek station.

After about 6-7 s since the last axis of the train left the crossing level, the EOC track circuit installed on the crossing level was freed, thus freeing the restraint of boom barriers, enabling the crossing keeper to operate the button for opening the barriers effectively. Right after the train No 45104 freed the restraint of the barriers, the crossing keeper operated the button, thus initiating the process of boom barriers opening.

During the process of boom barriers raising, which lasts for about 8-9 s until they are fully raised and the warning light signals are turned off, passenger cars entered the level crossing too early: Skoda Octavia Estate - from the side of track No 2, and Mazda - from the side of track No 1. In that time, i.e. about 9-10 s after the train No 45104 left the level crossing, and at least about 5 s before the boom barriers were fully raised and the light warning signals were turned off, the level crossing was reached by the fast train No 65111 PKP Intercity S.A., on track No 1, at a speed of 72 km/h; the train, while approaching the level crossing, passed the warning board displaying the “Osp 2” signal (signaling devices at the corresponding level crossing are operational, travel through the level crossing with the maximum permissible speed). At the level crossing, the railway engine of the train No 65111 hit the Skoda vehicle at first, and then it struck into the Mazda vehicle.

As a result of the occurrence one person (passenger of Mazda) was killed at the very place, one person (driver of Mazda) died in a hospital, and 1 person (passenger) was heavily injured.

Mazda vehicle was destroyed and the Skoda vehicle was seriously damaged. Railway engine of the train No 65111 suffered minor damages.

The Committee reported commencement of the proceedings related to the event to the European Railway Agency on 23 July 2015 (ERAIL database No PL-4826).

The Committee completed the proceedings related to the investigated event by way of resolution No 09/PKBWK/2015 dated 22 December 2015, and published the report No PKBWK/3/2015, specifying the causes of the occurrence and issuing 12 recommendations on improvement of safety. Full content of those recommendations, together with description of their implementation by the interested entities can be found in the Attachment to this Report.

Table No 4 - Structure of occurrences in 2015 in comparison to 2014, divided into categories

Occurrence category (letter marking)	Occurrence category description Direct cause of the occurrence	Category (numerical marking)	IN TOTAL 2014	IN TOTAL 2015
A	Dispatch of a rail vehicle to a track that is occupied, closed or opposite to the primary, or in improper direction	1	0	0
	Rail vehicle fails to stop before the "Stop" signal, or in a place where it should stop, or it is started without a necessary permission	4	0	0
	Maximum permitted speed is exceeded	6	0	0
	Rail vehicle hits another rail vehicle or an obstacle (e.g. brake skid, luggage or postal cart, etc.)	13	1	0
	Rail vehicle hits a road vehicle or is hit by a road vehicle, on a level crossing with boom barriers (A cat. according to travel specification)	18	0	1
	Rail vehicle hits a road vehicle or is hit by a road vehicle, on a level crossing with automatic signaling and half-way barriers(B cat.)	19	0	0
	Rail vehicle hits a road vehicle or is hit by a road vehicle, on a level crossing with automatic signaling and without barriers and half-way barriers (C cat.)	20	0	0
	Rail vehicle hits a road vehicle or is hit by a road vehicle, on a level crossing without automatic signaling and without barriers (D cat.)	21	0	1
	Rail vehicle hits a road vehicle or is hit by a road vehicle, on a level crossing with boom barriers (F cat.)	22	0	0
	Rail vehicle hits persons crossing the railway tracks on the level crossing or supervised crossing	31	0	0
	Rail vehicle hits persons crossing the railway tracks on the level crossing with automatic crossing signaling devices (B, C cat.)	32	0	0
	Rail vehicle hits persons crossing the railway tracks on remaining crossings	33	0	0
	Rail vehicle hits persons crossing the railway tracks outside the level crossings at stations and on railway routes	34	0	0
	Occurrences with persons related to railway traffic (jumping out or falling out of a train, rail vehicle, strong approach or rapid braking of a rail vehicle)	35	0	0
	SERIOUS ACCIDENTS		**1**	**2**
B	Dispatch of a rail vehicle to a track that is occupied, closed or opposite to the primary, or in improper direction	1	0	0
	Receipt of a rail vehicle on a station, to a closed or occupied track	2	0	0
	Dispatch, receipt or travel of a rail vehicle on an improperly laid and unsecured route, or improper operation of railway traffic control devices	3	15	17
	Rail vehicle fails to stop before the "Stop" signal, or in a place where it should stop, or it is started without a necessary permission	4	31	19
	Rail vehicle fails to remain cautious after passing an automatic block semaphore, displaying the "Stop" signal or a doubtful signal after stopping	5	0	2
	Maximum permitted speed is exceeded	6	0	0
	A maneuver that poses a danger for railway traffic	7	2	1
	Runaway of a rail vehicle	8	5	6
	Damage or improper maintenance of surface, bridge or viaduct, including improper realization of works, e.g. inadequate unloading of materials, surface, leaving the materials and equipment on the track or clearance gauge of a rail vehicle.	9	59	48
	Damage or bad technical condition of a rail vehicle with a drive, special-purpose rail vehicle (including hitting an item that is a structural part of a rail vehicle with a drive or special-purpose rail vehicle.	10	5	9
	Damage or poor technical condition of a car (including hitting the structural part of the car)	11	21	19
	Damage or faulty operation of railway traffic control devices	12	2	3
	Rail vehicle hits another rail vehicle or an obstacle (e.g. brake skid, luggage or postal cart, etc.)	13	12	24
	Criminal act	14	0	0
	The travel route is opened too early and the switch is shifted under a rail vehicle	15	11	11
	Wrong formation of the train	16	0	1
	Improper loading, unloading, irregularities in securing the load or other irregularities in loading activities	17	12	7
	Rail vehicle hits a road vehicle or is hit by a road vehicle, on a level crossing with boom barriers (A cat. according to travel specification)	18	5	7
	Rail vehicle hits a road vehicle or is hit by a road vehicle, on a level crossing with automatic signaling and half-way barriers (B cat.)	19	11	14
	Rail vehicle hits a road vehicle or is hit by a road vehicle, on a level crossing with automatic signaling and without barriers and half-way barriers (C cat.)	20	39	32
	Rail vehicle hits a road vehicle or is hit by a road vehicle, on a level crossing without automatic signaling and without barriers (D cat.)	21	131	109
	Rail vehicle hits a road vehicle or is hit by a road vehicle, on a level crossing with boom barriers (F cat.)	22	0	1
	Rail vehicle hist a road vehicle or is hit by a road vehicle outside level crossings at stations and on routes, or communication-access track to the railway siding	23	10	7
	Fire in the train	24	3	0
	Fire in a rail vehicle, except fires in trains	25	0	0
	Natural disasters (e.g. flood, snowdrifts, ice dams, hurricanes, land slides)	28	2	1
	Mean, hooligan or reckless acts (e.g. throwing stones at the train, placing an obstacle on the track, devastation of the energetic devices, communication, railway traffic control or surface, and interference with these devices)	30	3	1
	Rail vehicle hits persons crossing the railway tracks on the level crossing or supervised crossing	31	4	10
	Rail vehicle hits persons crossing the railway tracks on the level crossing with automatic crossing signaling devices (B, C cat.)	32	9	9
	Rail vehicle hits persons crossing the railway tracks on remaining crossings	33	12	14
	Rail vehicle hits persons crossing the railway tracks outside the level crossings at stations and on railway routes	34	244	239
	Occurrences with persons related to railway traffic (jumping out or falling out of a train, rail vehicle, strong approach or rapid braking of a rail vehicle)	35	19	12
	Disconnection of a train, not causing the cars to runaway	37	0	1
	Faulty operation of buildings and devices intended to operate railway traffic or rail vehicles, caused by a theft	38	0	3
	Approach of a rail vehicle driven by electricity supplied from a contact line to an unoccupied non-electrified track	39	0	1
	A category is not determined or the process is pending		5	1
	ACCIDENTS TOTAL		**672**	**629**
C	Dispatch of a rail vehicle to a track that is occupied, closed or opposite to the primary, or in improper direction	**41**	2	1
	Receipt of a rail vehicle on a station, to a closed or occupied track	**42**	2	4
	Dispatch, receipt or travel of a rail vehicle on an improperly laid and unsecured route, or improper operation of railway traffic control devices	**43**	27	19
	Rail vehicle fails to stop before the "Stop" signal, or in a place where it should stop, or it is started without a necessary permission	**44**	35	49
	Maximum permitted speed is exceeded	**45**	2	1
	A maneuver that poses a danger for railway traffic	**46**	0	0
	Runaway of a rail vehicle	**47**	1	2
	The travel route is opened too early and the switch is shifted under a rail vehicle	**48**	0	2
	Wrong formation of the train	**49**	1	1
	Improper loading, unloading, irregularities in securing the load or other irregularities in loading activities	**50**	7	5
	Damage to surface, bridge or viaduct, a contact line, including improper realization of works, e.g. inadequate unloading of materials, leaving the materials and equipment on the track or clearance gauge of a rail vehicle	**51**	19	15
	Improper operation of the railway traffic control devices resulting in: a block system occupied by a rail vehicle is not covered with the "Stop" signal, a semaphore displays an enable signal when the route is arranged improperly, inadequate operation of track or turnouts vacancy devices, improper operation of station or line block systems	**52**	2	1
	Rail vehicle with a drive or special-purpose rail vehicle is damaged or in bad condition, causing a necessity to exclude it from traffic	**53**	19	17
	The car is damaged or in poor condition, causing a necessity to exclude it from traffic	**54**	127	292
	Fire in the train	**55**	29	29
	Fire in a rail vehicle, except fires in trains	**56**	2	0
	Fire in a construction work, etc., within a railway area, forest fires reaching the end of the fire strip, fire of cereals, grasses and tracks started within the railway area	**57**	1	0
	Uncontrolled release of dangerous materials from a car or packaging requiring application of preparations for liquidation of fire, chemical, biological threat on a station or route	**59**	1	1
	Rail vehicle hits an obstacle (e.g. brake skid, luggage cart, postal cart, etc.) without derailment or victims	**60**	26	21
	Criminal act	**61**	0	0
	Natural disasters (e.g. flood, snowdrifts, ice dams, hurricanes, land slides)	**62**	7	12
	Construction disaster within a railway area	**63**	0	0
	Mean, hooligan or reckless acts (e.g. throwing stones at the train, placing an obstacle on the track, devastation of the energetic devices, communication, railway traffic control or surface, and interference with these devices)	**64**	22	21
	Occurrences with persons related to railway traffic (jumping out or falling out of a train, rail vehicle, strong approach or rapid braking of a rail vehicle) not causing any victims	**65**	11	20
	Road vehicle fails to stop before a closed boom barrier (half-way barrier), damages the barrier or its road signals	**66**	1	6
	Irregularities in operation of devices intended to operate railway traffic or rail vehicles, caused by a theft	**67**	2	2
	A category is not determined or the process is pending			0

INCIDENTS IN TOTAL	346	521
OCCURRENCES IN TOTAL	1019	1152

4. Safety improvement recommendations issued by the Committee in annual reports based on Art. 28L para 6 of the Act dated 28 March 2003 on Railway Transport.

4.1 Recommendations issued in 2015 and published in the PKBWK Annual Report 2014.

In 2015, pursuant to Art. 28l para 6 of the Act of 28 March 2003 on Railway Transport, the National Railway Incident Investigation Committee published the following recommendations in the Annual Report 2014:

1. PKP Polskie Linie Kolejowe S.A. infrastructure manager shall carry on the actions intended to limit the use of substitute signals on railway lines.
   The recommendation results from frequent use of a substitute signal by the infrastructure manager what leads to an increased risk for railway occurrences.
2. PKP Polskie Linie Kolejowe S.A. infrastructure manager, within the scope of the safety management system, shall undertake actions intended to analyze the risk at the stations not equipped with control of main track occupancy, and shall undertake adequate preventing measures allowing to limit the risk of the event.
   The recommendation results from investigations of occurrences that emerged within the manager's territory.

3. PKP Polskie Linie Kolejowe S.A. infrastructure manager shall undertake actions intended to change the Ir-8 manual or other instructions in the following scope:
   a. elimination of the notion of "exploitation difficulty" from the manual's content,
   b. introduction of a litigation mechanism in case railway committee members cannot reach a common ground in relation to the causes, category, circumstances, preventive measures, etc., consisting in authorizing the President of the National Railway Accident Investigation Committee for final settlement of the dispute.

   The recommendation results from the fact that the situations mentioned above often lead to wrong classification of the occurrence (a) or to railway committees' problems to complete the proceedings, as a consequence of lack of understanding between the railway committees members.
4. Within the operated management systems, the railway undertakings shall take up regular actions intended to:

a. reduce the number of occurrences related to fires of rolling stock with or without drive,
b. reduce the number of occurrences cause by bad technical condition of rolling stock with or without drive,
c. reduce the number of occurrences consisting in traveling through a level crossing having passed semaphores displaying an unable signal, or in failure to stop at a specified place.

The recommendation results from a major increase in the number of such occurrences in the railway network.

5. The infrastructure managers and railway undertakings shall take up regular actions intended to:
   a. Guarantee proper human resources and equipment, allowing to carry out proceedings in railway committees.
   b. Constantly improve knowledge and skills of the committee members carrying out proceedings related to the occurrences.

   The recommendation results from repeatable situations, where employers designate persons without proper knowledge or skills in a given area to work in railway committees, causing difficulties in operations carried out by railway committees and PKBWK.

The above-mentioned recommendations were handed to the President of the Railway Transport Office (UTK), who submitted the recommendations to the addressees - i.e. railway market entities, which the President of the Railway Transport Office oversees as provided for in the Act.

4.2 Recommendations issued in this Annual Report 2015

In 2015, pursuant to Art. 28l para 6 of the Act of 28 March 2003 on Railway Transport, the National Railway Incident Investigation Committee publishes the following safety improvement recommendations in the Annual Report 2015:

1. Within the operated management systems, the infrastructure managers and railway undertakings shall carry on actions intended to reduce the number of occurrences caused by bad technical condition or rolling stock without drive.

   The recommendation results from a major increase in the number of such occurrences in the railway network.

2. Infrastructure managers and railway undertakings that have digital data registering devices (speed, statuses of devices, etc.) installed in their rail vehicles and route monitoring devices (registration of image or image and sound) shall take up actions intended to equip the railway committee members in proper tools enabling to read data from the recorders on site immediately after the occurrence.
   The recommendation results from repeating situations of lack of possibility to read the above-mentioned data by employees designated to work in railway committees on site, what inhibits and prolongs the process of identifying initial causes of the events and preparation of the protocol from visual inspection from the site.

3. According to changes in provisions of the Act dated 28 March 2003 on Railway Transport and changes of executive acts to the Act, considering performance of accident investigation procedures, the infrastructure carriers and railway undertakings:
   a. shall adjust the internal regulations, safety management systems (SMS) and maintenance management systems (MMS) to the amended national legal acts,
   b. shall ensure that the employees delegated to work in railway committees have current knowledge in the amended national, internal, SMS and MMS regulations as well as technical expertise

The above-mentioned recommendations are handed to the President of the Railway Transport Office (UTK), who submits them to the addressees - i.e. railway market entities, which the President of the Railway Transport Office oversees as provided for in the Act.

5. Implementation of recommendations issued in 2015 by PKBWK (based on information from the Railway Transport Office - UTK).

On 4/29/2015, the National Railway Accident Investigation Committee was provided by the Railway Transport Office with information on implementation of recommendations issued by the Committee in 2015.

Table - implementation status of PKBWK recommendations on improvement of safety

The source of recommendation on improvement of safety	Issued in total	out of which		
		Implemented in whole	Under implementation or implemented to a significant extent	Not implemented or implemented in an alternative manner
Recommendations arising from the Report No PKBWK/1/2015	**10**	**8**	**1**	**1**
Recommendations arising from the Report No PKBWK/2/2015	**14**	**8**	**6**	**0**
Recommendations arising from the Report No PKBWK/3/2015	**12**	**2**	**10**	**0**
Recommendations arising from the PKBWK Annual Report 2014 (issued in 2015)	**6**	**3**	**3**	**0**
IN TOTAL	**42**	**21**	**20**	**1**

In 2015, within its reports (investigation reports and the Annual Report 2014) PKBWK issued 42 recommendations in general, out of which:

- 21 were implemented in whole, i.e. 50%,
- 20 is under implementation or were implemented by majority of entities in question, i.e. 47.6%,
- 1 recommendation was not implemented by the obliged entity, i.e. 2.4%.

Therefore, half of the recommendations issued in the PKBWK reports were already implemented, while the remaining part of issued recommendations remains under implementation

as not a lot of time passed from their issue date (December 2015) to verification of implementation by the Railway Transport Office (UTK).

Recommendations presented in reports No PKBWK/1/12005 and PKBWK/2/2015 marked with letters, were treated in the discussion as individual recommendations because of their separate nature.

Detailed discussion of implementation of the recommendations issued by the Committee in 2015 is included in the Attachment to this Annual Report, developed on the basis of feedback from the Railway Transport Office.

6. An analysis of occurrences that took place in 2015

An increase in the general number of occurrences

In 2015, the general number of occurrences reported to the Committee by the infrastructure managers grew by 13% in comparison to 2014, out of which:

- 2 serious accidents, investigated by the Committee (an increase by 100% in comparison to the previous year),
- the number of accidents dropped by more than 6%,
- the number of incidents grew by more than 50%.

Accidents

The greatest **increase** in the number of accidents took place in the following groups:

- B13 - A rail vehicle hits another rail vehicle or an obstacle - by 100%
- B10 - poor condition of rail vehicles with a drive - by more than 80%,
- B12- damage or faulty operation of railway traffic control devices - by 50%,
- B03 - dispatch, receipt or travel of a rail vehicle on a route that is arranged improperly and unsecured - by more than 13%.

The greatest **drop** in the number of accidents in relation to the previous year took place in the following categories:

- B24 - there was no train fire in 2015; 3 such occurrences took place in 2014,
- B17 - improper loading, unloading, irregularities in securing the load - by more than 41%,
- B04 - a rail vehicle fails to stop before the “Stop” signal, or at a place, where it should stop - by more than 30%,
- B09 - poor condition of infrastructure - by more than 18%.

Incidents

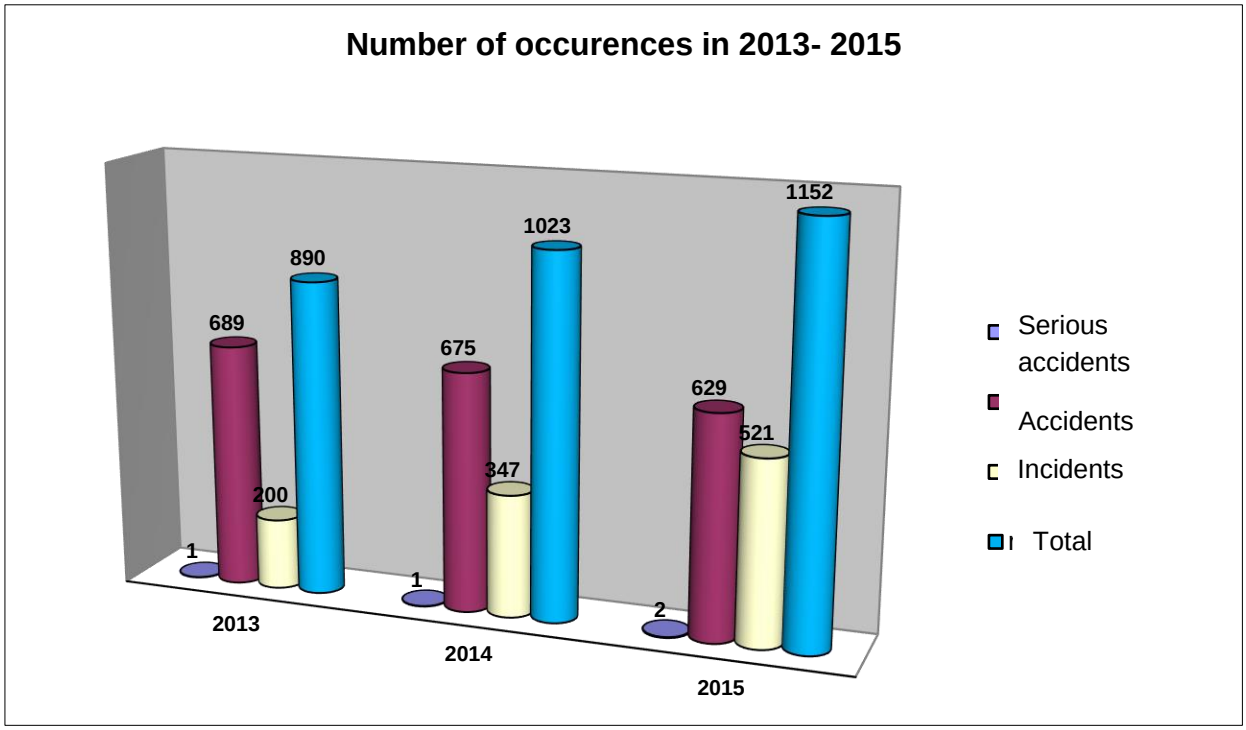
When compared to the previous year, there was a significant increase in the number of reported incidents in 2015, by more than 73%. The reason for this is, among others, improvement in detectability of incidents, and the fact that now the railway committees recognize situations classified beforehand in terms of exploitation difficulties as incidents, resulting from operations undertaken by the National Railway Accident Investigation Committee, Railway Transport Office, infrastructure managers and railway undertakings.

The areas, where the **increase** in the number of incidents took place, are:

- C54 - a car is damaged or in poor condition, causing a necessity to exclude it from traffic - by almost 130%,
- C42 - a rail vehicle is dispatched or received at a station at a closed or occupied track - by 100%,
- C65 - occurrences with persons related to jumping in and out a moving rail vehicle - by more than 80%,
- C44 - a rail vehicle fails to stop before the "Stop" signal, or at a place, where it should stop - by more than 40%.

The greatest **decrease** in the number of accidents took place in the following groups:

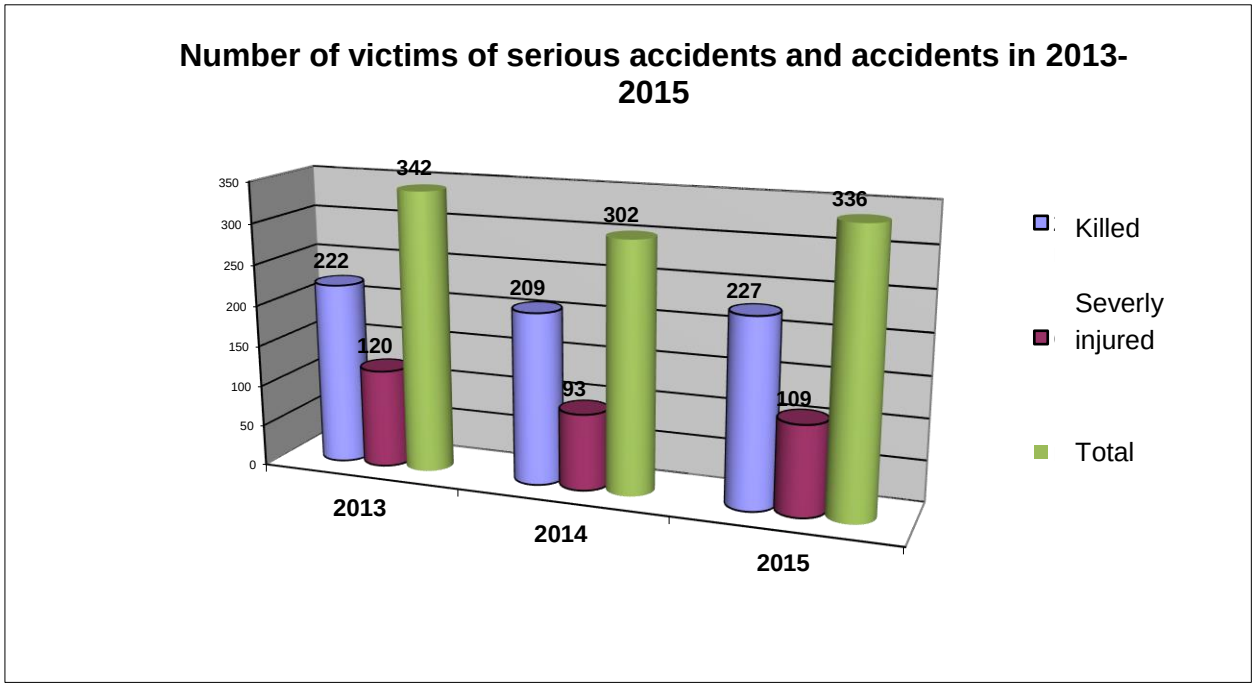
- C51 - damage to surface, bridge or viaduct, contact line, also improper realization of works - a decrease by more than 20%,
- C60 - a rail vehicle hits an obstacle - by almost 20%,
- C53 - a rail vehicle with a drive or a special-purpose rail vehicle is damaged or in poor condition, causing a necessity to exclude it from traffic - by more than 10%.



Victims of the accidents

The total number of victims in the accidents grew by more than 11%, out of which the number of killed by more than 9% and the number of severely injured by more than 17%. The group of victims is in majority composed of persons hit by rail vehicles while crossing the track in prohibited places, or at level crossings, persons jumping in and out of moving rail vehicle and users of the rail vehicles. There were no records of persons killed among the passengers or employees working in trains and rail vehicles.

The charts presented below illustrate basic data related to occurrences in 2015.



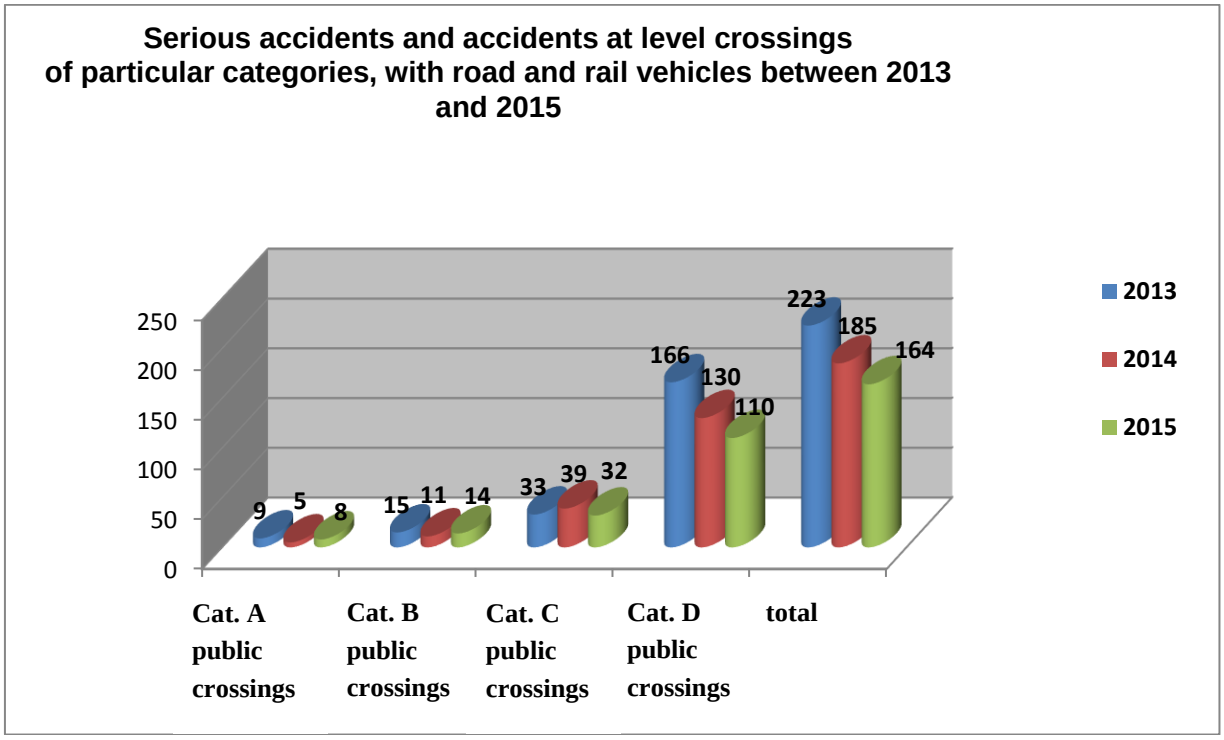
Accidents on level crossings

Since 2013, the general number of serious accidents and accidents on level crossings was dropping systematically. In 2015, when compared to the previous year, the drop amounted to 12%, while it was 26% in 2013.

The drop in the number of accidents took place at cat. C and D level crossings - respectively by 18% and 15%.

At the same time, there was an increase in the number of accidents at A and B level crossings, respectively by 60% and 27%.

Bearing in mind the increasing number of accidents on cat. A level crossings, the infrastructure managers should undertake adequate corrective and preventive actions, pursuant to the functioning safety management systems (SMS).



7. Remaining aspects of the Committee's activity in 2015

In 2015 the Committee carried out its statutory operations, realizing its objectives and pursuing its challenges, with significant savings on the awarded funds, in relation to this year's budget.

Within its actions, the Committee cooperated with other units of the Ministry, among others in the scope of giving opinions on projects of legal acts, sectoral programs, preparation of budget or organizational and personal issues.

Activities of the Committee were also related to cooperation with railway committees, internal organizations and enterprises in the country and abroad, especially:

- railway committees carrying out investigations supervised by the President of the Committee,
- prosecutor's offices and police, carrying out preparatory investigations related to the occurrences,
- European Railway Agency (ERA) in the scope of participation in plenary sessions and conferences organized by the Agency, exchange of information and participation in working parties within ERA,

- organizers of trainings and conferences in the scope of presentation of Committee's activities and the manner, in which it carries out the investigations related to railway occurrences (serious accidents, accidents and incidents) by railway committees.

In 2015, the Railway Transport Act was amended (uniformed text (Journal of Laws Dz.U., item 1297, as amended) what influenced the operations undertaken by the Committee in 2016.

In relation to the Committee, the changes are related to the following aspects:

- A possibility to increase the number of permanent members of the Committee (Art. 28A para 3),
- wider protection of the Committee members - they cannot be called to act as a witness or an expert before courts or other bodies in the scope of cases carried out by the Committee (Art. 28a para 17),
- greater stress on the necessity to provide proper resources for operation of the Committee by the ministry responsible for transport affairs (Art. 28d para 1),
- users of railway sidings are now obliged to inform the Committee about occurrences (Art. 28g para 1),
- Broadening of competence of the Committee members in the scope of, among others, access to the railway area, travel in the train cab and inspection of managers, undertakings and users of railway sidings after showing the Committee member ID card, within the scope of affairs considering traffic safety as a result of occurrence (Art. 28H para 2 points 7, 8 and 9),
- applying special legal protection to information, evidence and records from hearings of persons carried out by the Committee, including the prohibition to submit the documentation mentioned above to judicial bodies or other bodies carrying out proceedings (Art. 28h para 4), unless the District Court in Warsaw gives its approval for their publication, if it recognizes that the overriding public interest justifies the disclosure (Art. 28h para 5),
- taking over the supervision by the Railway Transport Office (UTK) President over proceedings carried out by railway committees (Art. 13 para 1a, point 7A), till 29 February 2016 the supervision was carried out by the President of the Committee.

The modifications mentioned above entered into force upon 1 March 2016, and are mandatory as of the day of publishing of this Annual Report.

8. Tasks of PKBWK for 2016

Within the current activities undertaken by the Committee in 2016, it will be necessary to realize the following tasks, among others:

- Committee's carrying out activities resulting from amended national regulations (among others on railway lines and sidings),
- creation of 2 field divisions of the Committee, and ensuring proper human resources and equipment,
- increasing the number Committee members to the extent enabling realization of broader tasks imposed on the Committee by amended national regulations,
- Introduction of an emergency contact number, where all the occurrences must be immediately reported (Art. 28g)
- update and maintenance of databases for railway events,
- cooperation with the Railway Transport Office (UTK), especially in the scope of recommendations handed for implementation pursuant to competence of the Railway Transport Office President, and other activities in the scope of railway traffic safety improvement,
- Cooperation with other units of the Ministry of Infrastructure and Construction in the area of consulting the regulations,
- Participation in meetings with representatives of national investigation bodies (NIB) of other EU member states and the European Railway Agency within the scope plenary meetings and working parties - exchange of experience and knowledge,
- cooperation and participation in working parties and trainings organized by the European Railway Agency,
- trainings for the Committee members in the scope necessary for realization of its tasks,
- supervision over observance of budgetary assumptions developed by the Committee for 2016

9. Summary

In 2015, the total number of occurrences reported to the Committee grew by 13% when compared to the previous year. When it comes to the number of accidents, there was a slight decrease in occurrences (by more than 6%), while the number in incidents grew by more than 50%. The same period experienced an increase in the number of accidents victims, by more than 11%.

Special attention should be paid to a general number of serious accidents and accidents on level crossings, systematically decreasing since 2013. In 2015, when compared to the previous year, the drop amounted to 12%, while it was 26% in 2013.

At the same time, the number of incidents has been on the increase since 2013, what on one hand proves improvement in their detectability, related to the fact that railway committees classify

situations recognized beforehand as exploitation difficulties (now potentially dangerous situations) as incidents, and on the other obliges the entities to undertake proper preventive activities intended to decrease the number of those events.

In the reports from performed investigations, published in 2015, and in this Report, the Committee issued a series of recommendations that according to the Committee serve further improvement of safety in railway transport.

In 2015, the Committee fulfilled its statutory obligations, at the same time not exceeding the budgetary assumptions for 2015. They were implemented with effective cooperation with numerous entities, first of all with railway committees, Railway Transport Committee, infrastructure managers and railway undertakings.

Remaining activity of the Committee President and of the Committee itself was carried out within the scope of supervision of investigations performed by railway committees. This supervision forces an in-depth analysis of reasons for occurrences, on the basis of which conclusions preventing similar occurrences in the future were developed. The Committee played an arbitration role plenty of times, in relation to the railway committees that were unable to reach a common ground in terms of reasons and categories of occurrences during the realized investigations.

10. Contact details of PKBWK

National Railway Accident Investigation Committee
Ministry Of Infrastructure And Construction
ul. Chałubińskiego 4/6 building A
00-928 Warsaw

PERMANENT MEMBERS:

Tadeusz Ryś President of PKBWK phone (0-22) 630-14-33, fax (0-22) 630-14-39	**Jan Andrzej Młynarczyk** Deputy President of PKBWK phone (0-22) 630-14-33, 630-14-34, fax (0-22) 630-14-39
Rafał Leśniowski Secretary, Permanent member of PKBWK phone (0-22) 630-14-35, fax (0-22) 630-14-39	**Andrzej Gniwek** Permanent member PKBWK phone (0-22) 630-14-36, fax (0-22) 630-14-39

COMMITTEE'S SERVICE EMPLOYEE:

Barbara Pióro, phone (0-22) 630-14-33, fax (0-22) 630-14-39, e-mail: pkbwk@mib.gov.pl
Emergency contact number 510 126 711

Website of PKBWK

The Committee's website is available at:

www.mib.gov.pl

tab: Tasks → Transport → Railway → National Railway Accident Investigation Committee

On the Committee's website, the available information and documents are grouped according to the following classes:

- Immediate reporting of events (Art. 28g),
- reporting of railway occurrences in writing (§),
- about the Committee
- law and documents,
- reports.

ATTACHMENT
to the PKBWK Annual Report 2015
Information on implementation of recommendation issued in 2015 by PKBWK

based on data from the Railway Transport Office

In 2015, as a result of completion of investigations from railway occurrences, in relation to identified irregularities that pose a direct threat for the railway traffic safety, the National Railway Accident Investigation Committee (PKBWK), pursuant to Art. 28l para 1, 6 and 8 of the Act of 28 March 2003 on Railway Transport (Journal of Laws Dz.U. of 2013, item 1594) hereinafter referred to as the Railway Transport Act, issued recommendations intended to improve safety and prevent or minimize results of similar events in the future.

Pursuant to the Attachment to the Commission Regulation (EU) No 1158/2010 of 9 December 2010 on a common safety method for assessing conformity with the requirements for obtaining railway safety certificates, and according to the Commission Regulation (EU) No 1169/2010 of 10 December 2010 on a common safety method for assessing conformity with the requirements for obtaining railway safety authorisation, railway undertakings and railway infrastructure managers, operating on the basis of the safety management system, are obliged to establish procedures ensuring that recommendations issued by the national safety body and the national investigation body are assessed and applied in justified cases, or their application is advised (Q9 criterion for a common safety method for assessing conformity).

Pursuant to Art. 13(1A) point 4 of the Act dated 28 March 2003 on Railway Transport (uniform text: Journal of Laws Dz. U. of 2005, item 1297, as amended), hereinafter referred to as the Railway Transport Act, President of the Railway Transport Office, while implementing his tasks, carries out a systematic monitoring over observance of the conditions or requirements provided for in the safety and authorisation certificates, including requirements related to the manner in which the railway undertakings deal with the safety recommendations issued by an investigation body.

Bearing in mind the above-mentioned information and obligations imposed on the railway sector entities in the area related to safety recommendations, the railway undertakings, i.e. infrastructure managers and railway undertakings operating on the basis of a safety certificate or authorisation issued by the President of the Railway Transport Office (UTK), were called for

information on implementation status of post-accident recommendations issued by the President of the National Railway Accident Investigation Committee in 2015:

1. Recommendations published in the **Annual Report for 2014** pursuant to Art. 28l para 6 of the Transport Railway Act.
2. Recommended preventive measures, intended to avoid similar accidents in the future or to limit their effects, published in the Report No **PKBWK/1/2015** from the investigation of cat. B10 accident that took place on 31 August 2014 at 16.47, on the Kraków Prokocim - Kraków Płaszów route, on track No 2 on the 12.629-kilometer point, at the railway line No 100 Kraków Mydlniki - Gaj - area of PKP Polskie Linie Kolejowe S.A., Railway Lines in Cracow infrastructure manager.
3. Recommended preventive measures, intended to avoid similar accidents in the future or to limit their effects, published in the Report No **PKBWK/2/2015** from the investigation of cat. A21 serious accident that took place on 3 June 2015 at 15.45 at cat. D level crossing, located on the Kornatowo - Grudziądz Mniszek route, on track No 1, at 36.658-kilometer point of the railway line No 207; Toruń Wschodni - Malbork, area of the PKP Polskie Linie Kolejowe S.A. Railway Liner in Bydgoszcz infrastructure manager.
4. Recommended preventive measures, intended to avoid similar accidents in the future or to limit their effects, published in the Report No **PKBWK/3/2015** from the investigation of cat. A18 serious accident that took place on 11 July 2015 at 17.10 at cat. A level crossing, located on the Gałkówek - Koluszki route, on track No 1, at 23.506-kilometer point of the railway line No 17, Łódź Fabryczna - Koluszki, are of the PKP Polskie Linie Kolejowe S.A., Railway Lines in Łódź infrastructure manager.

According to the status of 22 April 2016, there are five entities that failed to report information about the status of the post-accident recommendations implementation or undertaken actions intended for implementation of those recommendations. Pursuant to Art. 28l para 9 of the Railway Transport Act, President of the Railway Transport Agency (UTK) supervises implementation of recommendations by the managers, railway undertakings or other entities, whose operations influence safety of railway traffic and rail exploitation under regulations provided for in the Act. The Companies shall be controlled within the scope of the Safety Management System (SMS) implementation. The scope of inspection shall also cover the implementation status of the post-accident recommendations by the entity, provided by the National Railway Accident Investigation

Committee, as well as implementation of the systemic approach tot he communicated recommendations.

Pursuant to Art. 25 of the Directive 2004/49/EC, the recommendations issued by the investigation body should be adequately treated by the addresses, and implemented wherever applicable. The safety authorities should enforce adequate treatment of the issued recommendations within the sector, carrying out supervision over safety management systems adopted by particular entities. Structure of each management system should include procedures guaranteeing that recommendations by the national safety authority, national investigation body, sectoral recommendations or those resulting from external investigations, are assessed and in applicable cases implemented, or advised for implementation (criterion Q of the common safety method in the scope of conformity assessment).

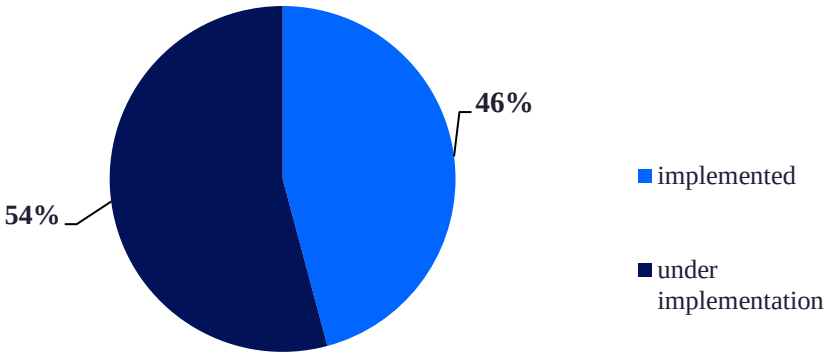
Pursuant to the obligation arising from Art. 28l para 9 of the Act of 28 March 2003 on Railway Transport, regarding supervision carried out by the President of the Railway Transport Office (UTK), actions undertaken by entities from the railway sector in the field related to implementation of safety recommendations were carried out in 41 monitoring actions, performed from January 2015

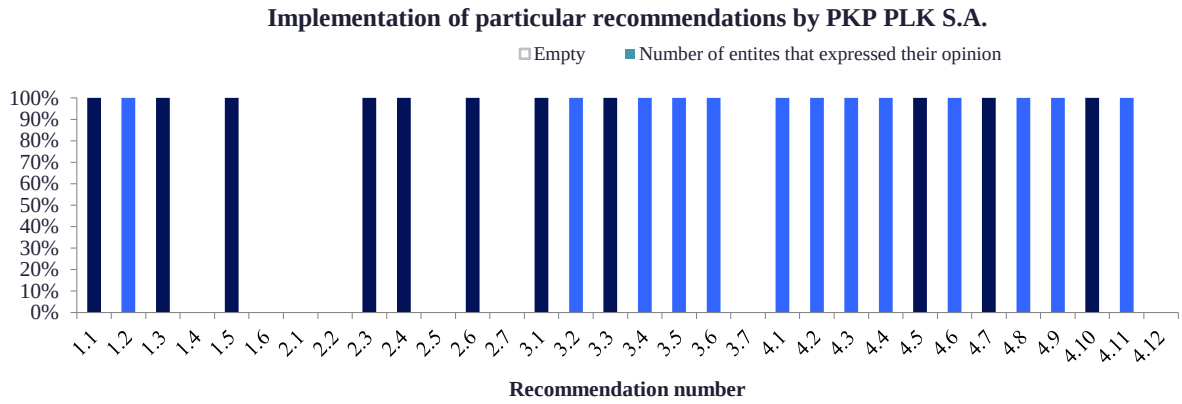
to April 2016. Implementation of recommendations issued in 2014, i.e. In the Report No PKBWK/1/2014 was verified during implementation of 3 of them, when no irregularities were found out.

Below is presented information on the status of recommendations implementation by the railway market entities as of 21 April 2015. The analysis presented below was prepared on the basis of declarations submitted by particular entities. Content of particular recommendations and the information about the level of their implementation is presented in the attached table.

Recommendations for PKP Polskie Linie Kolejowe S.A.

Out of 32 recommendations published by the National Railway Accident Investigation Committee in 2015, 24 referred to the PKP PLK S.A. Company. The Company declares 11 implemented recommendations, i.e. 46% of all corresponding recommendation for that year. The remaining 13 are under implementation. Details related to the manner of implementation and undertaken actions aimed at realization of particular recommendations are presented in the attached table.

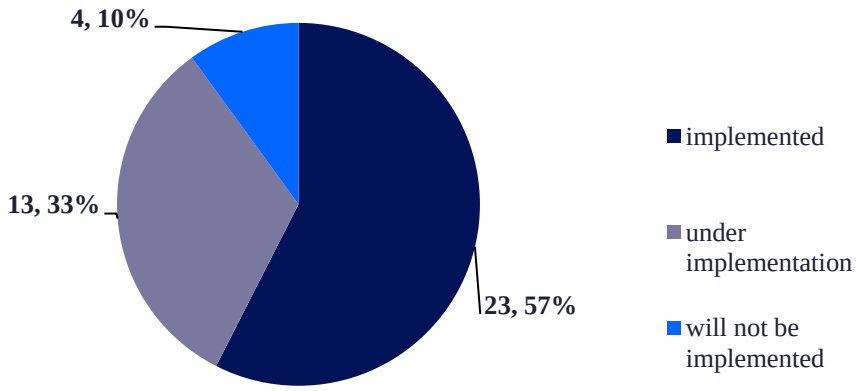




Recommendations related to the remaining infrastructure managers

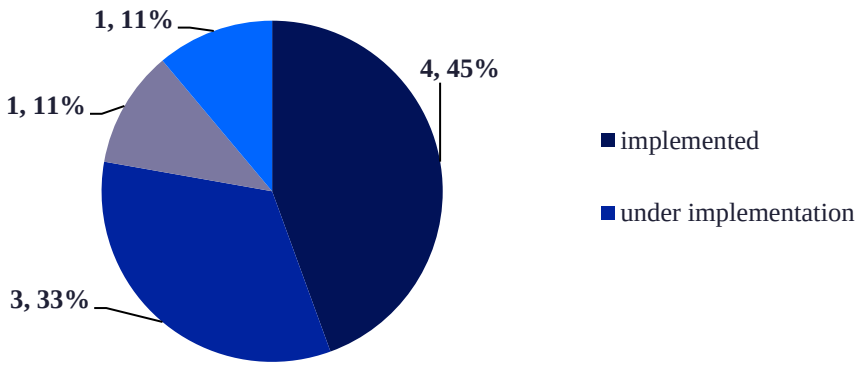
4 recommendations were related to other infrastructure managers, i.e. 10 entities. Pursuant to the obtained declarations, 3 entities implemented 4 recommendations each (PMT Linie Kolejowe sp. z o.o., PKP Linia Hutnicza Szerokotorowa sp. z o.o., Jastrzębska Spółka Kolejowa sp. z o.o.). Three recommendations were implemented by a single entity (Infra Silesia S.A.). Two recommendations were implemented by three companies (PKP Szybka Kolej Miejska sp. z o.o. and Kopalnia Piasku Kotlarnia Linie Kolejowe sp. z o.o. and Cargotor S.A). According to the information received from the infrastructure managers, two entities (CTL Maczki - Bór S.A. And Dolnośląska Służba Dróg i Kolei sp. z o.o.) will not implement the recommendation and provide railway regulations and instructions with detailed principles regarding the place of emitting the "Warning" signal by a train driver, towards the W6a indicator location in cases, when the travel situation (indications of semaphores) or location of the stop suggest significantly longer time of the train approach to the level crossing than if it traveled with the maximum permitted speed (for which the indicator location is

determined). The recommendation related to consideration of the fact that while designing modernization or revitalization works of the railway lines, the designer should verify the communication outline of roads, as a whole that is functionally connected with level crossings, will not be implemented by one entity (Infra Silesia S.A.). Recommendation related to workers employed on positions regarding railway traffic safety, which require authorizations, to eliminate cases - nonconforming with the applicable regulations - when the work is carried out by persons without documentation that would include current entries on the performed actions will not be implemented by one entity (Dolnośląska Służba Dróg i Kolei S.A.).

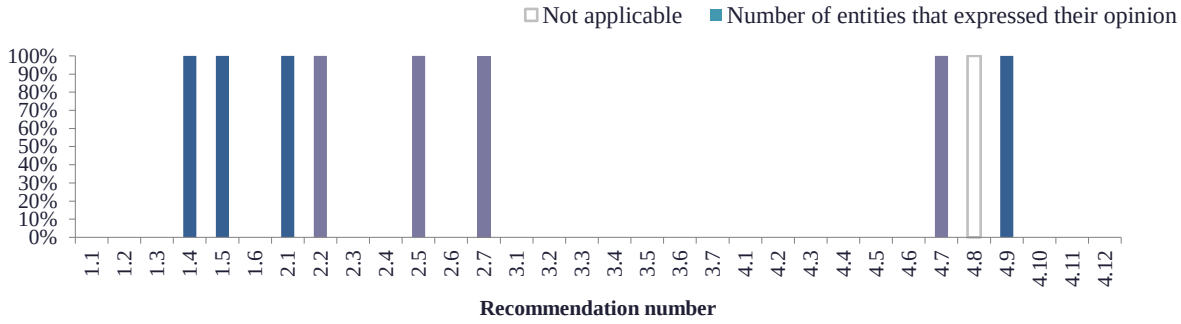


Recommendations for PKP Cargo S.A.

Out of 32 recommendations published by the National Railway Accident Investigation Committee in 2015, 9 referred to the PKP Cargo S.A. The company declares that it implemented 4 recommendations and that 3 are under implementation. The Company also stated that one recommendation is not related to its operations, and that it undertook alternative actions towards another one. Details related to the manner of implementation and undertaken actions aimed at realization of particular recommendations are presented in the attached table.



Implementation of particular recommendations by PKP Cargo S.A.

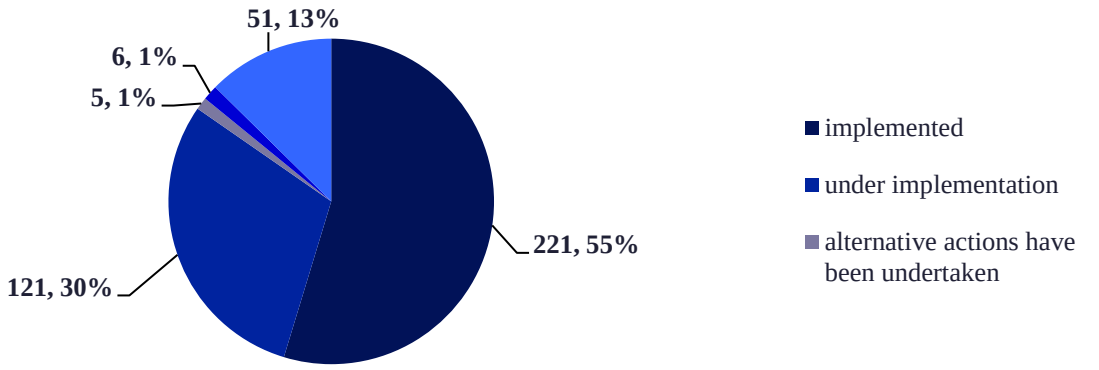


Recommendations related to the remaining railway undertakings

5 recommendations were related to other railway undertakings, i.e. 81 entities. 17 entities, i.e. 21%, declare implementation of all corresponding recommendations (Bartex sp. z o.o., Centrum Logistyczne w Łososnej sp. z o.o., CTL Kolzap sp. z o.o., CTL Logistics sp. z o.o., CTL Północ sp. z o.o., Dolnośląskie Linie Autobusowe sp. z o.o., Kolej Bałtycka S.A., Koleje Czeskie sp. z o.o., LOTOS Kolej sp. z o.o., PKP Linia Hutnicza Szerokotorowa sp. z o.o., POLZUG Intermodal Polska sp. z o.o., Przedsiębiorstwo Obrotu Surowcami Wtórnymi „DEPOL" sp. z o.o., Przedsiębiorstwo Usługowo - Handlowe „AGROSTOP" sp. z o.o., Przewozy Regionalne sp. z o.o.,TRANSCHEM sp. z o.o., Ciech Cargo sp. z o.o., „TABOR" M. Dybowski sp.j.).

Recommendation related to provision of railway regulations and instructions with detailed principles regarding the place of emitting the "Warning" signal by a train driver, towards the W6a indicator location in cases, when the travel situation (indications of semaphores) or location of the stop suggest significantly longer time of the train approach to the level crossing than if it traveled with the maximum permitted speed (for which the indicator location is determined) will not be implemented by 5 entities, 3 undertook alternative actions while 31 did not give any opinion on the matter.

Recommendation related to actions undertaken within the scope of the Safety Management System, intended to reduce the number of events of fire of the rolling stock with and without drive, occurrences caused by poor condition of the rolling stock with and without drive, and occurrences consisting in traveling through the level crossing next to the semaphores indicating prohibition, or failure to stop the rail vehicle at a given place will not be implemented by a single entity (Moris sp. z o.o.), one entity undertook an alternative actions (DB Schenker Rail Spedkol sp. z o.o.).



Furthermore, 18 entities declared implementation of the recommendation directed to PKP Cargo S.A., related to successive realization - within the scope of the Safety Management System adopted by the enterprise - of an analysis of occurrence of threats resulting from failure to carry out complex inspections of the vehicles after occurrences, pursuant to internal regulations, 3 entities are under implementation of the recommendation, while two undertook alternative actions.

RECOMMENDATIONS - ISSUED IN 2015:

recommendations issued by the National Railway Accident Investigation Committee in the Annual Report 2014 based on Art. 28L para 6 of the Act of 28 March 2003 on Railway Transport:

Developed by: Railway Transport Office

No.	CONTENT OF THE RECOMMENDATION	IMPLEMENTATION
1.	PKP Polskie Linie Kolejowe S.A. infrastructure manager shall carry on the actions intended to limit the use of substitute signals on railway lines. *The recommendation results from frequent use of a substitute signal by the infrastructure manager what leads to an increased risk for railway occurrences.*	Regarding PKP PLK S.A. **Implemented** by 1 entity (100%)[1] PKP Polskie Linie Kolejowe S.A. infrastructure manager carries on the actions provided for in the Railway Traffic Safety Improvement Programme in previous years and for 2016, under: Section "Monitoring" Objective M.8.1 "Supervisory actions preventing long-term realization of traffic on the basis of substitute signals and written orders" / Measure M.8.1.1; M.8.1.2; M.8.1.3 and Section "Improvement" Initiative D.3b.3 "Preventing application of substitute signals (Sz) during investment and maintenance works" / Measure D.3b.3.1; D.3b.3.2 and Objective 8 "Elimination of reasons for long-standing realization of traffic on the basis of substitute signals and written orders" / Initiative D.8.1; D.8.2; D.8.3. Furthermore, Management Board of PKP Polskie Linie Kolejowe S.A. adopted PKP PLK S.A. priority safety objectives for 2016, including an objective entitled "Elimination of reasons for long-term realization of traffic on the basis of substitute signals and written orders". Thanks to decisive actions undertaken by the Company, the number of traffic posts - where traffic was realized on the basis of substitute signals "Sz" for a long time - was reduced. In March 2012, traffic based on substitute signals was realized in 153 posts (applying "Sz" for more than 7 days), in December 2014 on 55 posts (applying "Sz" for more than 3 days), while in the report of 9 December 2015, the number of such posts amounted just to 31. What is more, in accordance with the above-mentioned recommendations, the Guidelines on organization of periodic instructions in 2016 adopted the notion entitled "An analysis and successive elimination of reasons for employing substitute signals on traffic posts as a factor causing high

[1] regarding percentage share of entities for a given phase of the recommendation implementation.

		risk of occurrence of threat". Furthermore, permanent element of periodic instructions for such positions as a train dispatcher, a signalman, or a switch-man, included the notions related to "utilization of substitute signals by workers of traffic posts for a substitute signal with simultaneous indication of the W 24 sign". *18 supervisory actions were carried out in 10 facilities of the Company. The identified irregularities in the scope of implemented recommendations are already removed or they will be removed until 30 April 2016. In one case, a company suggests that the reason for application of substitute signals are numerous thefts of railway traffic control system devices.*
2.	PKP Polskie Linie Kolejowe S.A. infrastructure manager, within the scope of the safety management system, shall undertake actions intended to analyze the risk at the stations not equipped with control of main track occupancy, and shall undertake adequate preventing measures allowing to limit the risk of the event. *The recommendation results from investigations of occurrences that emerged within the manager's territory.*	<u>Regarding PKP PLK S.A.</u> **Under implementation** - by 1 entity (100%) PKP Polskie Linie Kolejowe S.A. Management Board agreed that in 2015 , 2016 and 2017 the first ones to be covered by the recommendation will be the train stations, where the systemic control for track vacancy is to be installed, selected according to the criteria provided below: 1) **"line category"** – the task will be realized on main tracks of the station, localized on main and 1st class lines; 2) **"speeds of traveling trains"** – the task will be realized on main tracks of the stations, where the speed of traveling trains exceeds 60 km/h; 3) **"track loading with trains"** – the task will be realized in relation to track loading with at least 100 trains per day; 4) **"work character of the main track"** – the task will be realized on the main track that plays a role of a running track on stations. There is a process for installation of devices for systemic control of track vacancy taking place on stations included in the plans for 2015-2017, financed from own and investment funds. In case of remaining railway stations, for which the planned date for installation of the track vacancy control systems, the deadline is 2017. The investment platform is provided with investment applications for funding the planned tasks. Furthermore, in case of stations, which are not equipped with track insulation, there are other actions take up in the scope of implementing preventive measures that limit the risk of a certain occurrence, including: utilization of auxiliary locks (protecting or warning), a duty to control vacancy of station track (in case of stations equipped with track

		insulation such a duty is recommended in case of damage or improper operation of railway traffic control system devices and track insulation). Principles of conduct during preparation of the route, and application of auxiliary measures by the personnel of traffic posts are constantly monitored and discussed by the instructor-control ans supervisory team during visits in the posts. Furthermore, within the scope of improvement and prevention conclusions, according to the Safety Management System procedures, the following actions were performed: ➢ an analysis of provisions of Technical Regulations in the scope of adequate verification of the track vacancy status, ➢ verification of visibility of the boundaries of switch circles determined in the Technical Regulations (TR), ➢ verification of provisions provided in 36 TR and employees' respecting the requirement for utilization of auxiliary measures. It was also recommended to pay attention to work of the technical post personnel during internal audits, in relation to correctness of verification of the tracks and turnouts vacancy verification. *No irregularities in the scope of recommendation implementation were found out during control activities.*
3.	PKP Polskie Linie Kolejowe S.A. infrastructure manager shall undertake actions intended to change the Ir-8 manual or other instructions in the following scope: a) elimination of the notion of "exploitation difficulty" from the manual's content, b) introduction of a litigation mechanism in case railway committee members cannot reach a common ground in relation to the causes, category, circumstances, preventive measures, etc., consisting in authorizing the President of the National Railway Accident Investigation Committee for final settlement of the dispute. *The recommendation results from the fact that the*	<u>Regarding PKP PLK S.A.</u> **Implemented** by 1 entity (100%) PKP Polskie Linie Kolejowe S.A. implemented (from 1 January 2016) amended "Instructions for conducts in case of serious accidents, accidents and incidents on Ir-8 railway lines", the content of which was modified in accordance with, among others, recommendation issued by the National Railway Accident Investigation Committee, i.e.: a) the notion of "exploitation difficulty" was eliminated and replaced with the category of "potentially dangerous situations". Application of a category of occurrences within the safety management system of an auxiliary infrastructure manager - except of serious accidents, accidents and incidents - (especially for the needs of preventing serious accidents, accidents and incidents) complies with point 2 letter h of Attachment III to

	situations mentioned above often lead to wrong classification of the occurrence (a) or to railway committees' problems to complete the proceedings, as a consequence of lack of understanding between the railway committees members.	the Directive 2004/49/EC on railway safety and criterion Q from Attachment II to the Commission Regulation (EU) No 1169/2010 on a common safety method for assessing conformity with the requirements for obtaining railway safety authorisation (Journal of Laws EU 327, of 11.12.2010) b) in § 26. "Proceedings in disputes" was provided with paragraphs 5 - 8, regulating the principles of operation of a litigation team under auspices of PKBWK. *No control actions in the scope of recommendation implementation were carried out.*
4.	Within the operated management systems, the railway undertakings shall take up regular actions intended to: a) reduce the number of occurrences related to fires of rolling stock with or without drive, b) reduce the number of occurrences cause by bad technical condition of rolling stock with or without drive, c) reduce the number of occurrences consisting in traveling through a level crossing having passed semaphores displaying an unable signal, or in failure to stop at a specified place. *The recommendation results from a major increase in the number of such occurrences in the railway network.*	<u>Regarding railway undertakings</u> **Implemented** by 49 entities (61%) The entities implemented the recommendations, among others through: • In order to reduce the number of occurrences with fire of the rolling stock with and without a drive, the entities declared (within the Safety Management System) to analyze near-misses or other dangerous occurrences on ongoing basis, and to draw conclusions and adopt preventive measures in relation to near-misses and other dangerous occurrences; • Such occurrences are discussed during periodical instructions, and what is more, they pose a permanent subject of interest of the internal audit personnel, carrying out inspections at the workplaces of contact line, maneuver, revision or maintenance teams. If any threats or irregularities are identified during the inspections, additional and temporary instructions are provided; • Technical condition of rail vehicles is maintained at the level provided for in the Documentation Maintenance System, what reduced the level of technical risk in the "rolling stock"area to an acceptable level; • On the basis of a register of faults of traction vehicles, entities monitor data on current basis, thus they are capable of undertaking corrective or preventing actions, including disciplination of service companies; • Signals from devices detecting emergency conditions of the rolling stock are reported by the train drivers to dispatching offices responsible for

		the technical condition of rolling stock, where they are analyzed and assessed. Defective vehicles undergo repairs. **Under implementation** by 25 entities (31%) The entities implemented the recommendations, among others through: • It was declared that the recommendation would be realized through reviewing the occurrences raised in the recommendation, during future periodic instructions; • It was declared that the recommendation would be realized via additional inspections of the exploited rail vehicles within the Safety Management System and Maintenance Management System, in terms of fire protection and technical condition; **It will not be realized** by 1 entity (1%) • No such occurrences were found out; • Additional actions are not required as the entity is in possession of legally approved fire protection measures. **Alternative actions** were undertaken by 1 entity (1%) • Bearing in mind that no such occurrences were identified in case of the entity in question, alternative actions consisting in implementation of the recommendation pursuant to the implemented Safety Management System and Maintenance Management System, including ongoing monitoring, were undertaken. **5 entities failed to give any opinion** (6%) *No irregularities in the scope of recommendation implementations were found out during control activities.*
5.	The infrastructure managers and railway undertakings shall take up regular actions intended to: a) guarantee proper human resources and equipment, allowing to carry out proceedings in	<u>Regarding railway undertakings and infrastructure managers</u> **Implemented** by 60 entities (66%) The entities implemented the recommendations, among others through: a) • Within the scope of the continuous improvement and effective

	railway committees, b) constantly improve knowledge and skills of the committee members carrying out proceedings related to the occurrences. *The recommendation results from repeatable situations, where employers designate persons without proper knowledge or skills in a given area to work in railway committees, causing difficulties in operations carried out by railway committees and PKBWK.*	management of personnel competence, the entities provide human resources in a systematic manner, for work in the railway committee and monitor qualification of employees designated for works in the subject committees. • Duty schedules for local and in-house railway committees are determined in a monthly cycle, pursuant to provisions of the Labor Code; b) • improvement of knowledge and skills of railway committees members is carried out within the scope of periodic instructions and seminars, exchange of experiences during emergency meetings, and exchange of experiences between railway committees members, self-education and ad-hoc trainings. **Under implementation** by 26 entities (29%) The entities implemented the recommendations, among others through: a) • actions were undertaken in order to employ persons with proper qualifications and experience - implementation to take place during 2nd quarter 2016 b) • In-house trainings for committees members - continuous actions; • Continuous improvement of knowledge and skills of the employees designated to work in the committee. **5 entities failed to give any opinion** (5%) *No irregularities in the scope of recommendation implementation were found out during control activities.*
6.	The Minister of Infrastructure and Development shall undertake actions intended to amend the Regulation of 30 April 2007 on serious accidents, accidents and incidents on railway lines, including especially: a) introduction of a mechanism for disputes	**Implemented** Regulation of the Minister of Infrastructure and Construction of 16 March 2016 on serious accidents, accidents and incidents in in railway transport was published in the Journal of Laws of 2016, item 369.

	settlement by the Presidents of the National Railway Accident Investigation Committee if railway committees that carry out the proceedings on the events are incapable of reaching an understanding, b) other changes intended to simplify the procedure of conduct by railway committees, and influencing elimination of difficulties faced by passengers in relation to the proceedings carried out by the railway committee, c) implementation of an additional category of occurrences "other not specified above", applied in case of two independent direct causes and lack of possibility for the railway committee or PKBWK the dominating reason. *The recommendation mentioned above arises from previous policy of PKBWK functioning from 2007, and a necessity to grasp the mechanisms for solving the mentioned issues in the regulations.*	

As a result of serious accident - cat. A18 B10, which took place on 31 August 2014, at 16.17, on the Kraków Prokocim - Kraków Płaszów route, on track No 2, at 12.629-kilometer point of the railway line No 100, Kraków Mydlinki - Gaj, the accident investigation team from PKBWK recommended implementation of the following actions:

No.	CONTENT OF THE RECOMMENDATION	IMPLEMENTATION
Recommended preventive measures intended to avoid such accidents in the future or to limit their effects:		
1.	Within the Safety Management System, to carry out a successive analysis of occurrence of threats resulting from failure to perform complex inspection of vehicles after occurrences, pursuant to the internal regulations.	Regarding PKP Cargo S.A. **Implemented** by 1 entity (100%) By way of decision by the representative for the Safety Management System, facilities of the Company were directed to carry out an analysis for occurrence of threats resulting from failure to perform periodic inspections of vehicles, pursuant to internal regulations. Implementation date 30.10.2015 *PKP Cargo S.A. was not monitored in the scope of implementation of that recommendation.* *Additionally, 18 entities declared implementation of the recommendation directed to PKP Cargo S.A. During the inspection carried out in two entities declaring implementation of that recommendation there were no irregularities identified within that scope.*
2.	Increase the number of technical conditions controls of the rolling stock after technical inspections and repairs by a railway undertaking, pursuant to the adopted and applicable "Action programme for improvement of railway traffic safety in facilities" of PKP Cargo S.A.	Regarding PKP Cargo S.A. **Implemented** by 1 entity (100%) By way of a decision made by the Freight Managing Director, the number of inspection carried out each month is increased by one, as well as the number of controls over the rolling stock after technical inspections and repairs. Implementation date 31.12.2015 **Under implementation** - within the scope of the Railway traffic safety improvement programme in PKP Cargo S.A. in 2016", adopted by way of resolution by the PKP Cargo S.A. Management Board, the requirements related

		to in-house commissioning of traction vehicles after maintenance level 1, 2 and 3 are increased. Final implementation date: 31.12.2016 *No control actions in the scope of recommendation implementation were carried out.*
3.	Carry out a successive analysis of risk for threats reported by diagnosticians after technical inspection of tracks, within the scope of the Safety Management System structure of the railway enterprise.	<u>Regarding PKP PLK S.A.</u> **Implemented** by 1 entity (100%) Safety Office of the Company's HQ, in the letter communicated to all facilities of railway lines and the organizational units, recommended a risk analysis pursuant to the SMS / MMS-PR-02 procedure for the whole Railways, including all faults of the railway surface that were not removed, in order to undertake preventive actions. The risk analysis must consider the impact of faults occurring in various tracks within the same location, e.g. a station, on the level of safety, and an attachment to a corresponding report must be a schedule for removing all identified faults with specified safety measures (risk control measures), implemented until they are removed. The Company's organizational units - addressees of the above-mentioned recommendation - submitted feedback to the Safety Office informing that they have carried out the risk analysis in accordance with the SMS / MMS-PR-02 procedure, covering the faults of the rail surface that were not removed. If a location of a high risk of occurrences is identified, additional measures of risk control were determined and implemented within the scope of preventive actions (SMS / MMS-PD-05), until the faults are removed. *No irregularities in the scope of recommendation implementations were found out during control activities.*
4.	Increase the number of inspections of tracks conditions in locations (with high risk of occurrences) selected by the infrastructure manager after a risk analysis carried out within the scope of the Safety Management System.	<u>Regarding PKP PLK S.A.</u> **Implemented** by 1 entity (100%) The Safety Office of the Company's HQ, in the letter communicated to all facilities of railway lines and the organizational units of the Safety Office, recommended to carry out additional inspections of tracks condition (at least 1 unplanned

		inspection in each ISE) in locations selected on the basis of the risk analysis covering the existing faults of the rail surface. The Company's organizational units that are the addressees of the above-mentioned recommendation, submitted feedback to the Safety Office, informing that they carried out additional inspections of the track condition, as a measure for risk monitoring in case of locations with existing faults of the railway surface, of a high risk of occurrences. Or informed that the the risk level within the suggested locations remains on a permissible level, and it is not necessary to carry out additional inspections of the tracks condition. If danger in railway traffic is identified on an acceptable level, additional diagnostic inspections of the railway surface were implemented. *No irregularities in the scope of recommendation implementations were found out during control activities.*
5.	In relation to the Safety Management System, PKP Cargo S.A.: a) shall undertake actions intended to complement the Register of threats with a threat related to an improper manner of issuing a permission to operate the rail vehicles, including the traction vehicles, after accidents. According to the P/10 procedure, there is a need to assess risk related to this threat, b) improvement in the number of SMS audits in the Company's facilities, c) expansion of the scope of SMS audits, covering the P/12 procedure "Maintaining the rolling stock in a working order" with audits.	<u>Regarding PKP Cargo S.A.</u> **Under implementation** by 1 entity (100%) a) **Implemented** – By way of decision by the representative for the Safety Management System, a new item was entered into the register of threats functioning within the Company, *i.e. permission for use of rail vehicles* incompliant with applicable procedures. Facilities of the Company were directed to carry out an analysis for occurrence of threats resulting from failure to perform full inspections of vehicles, pursuant to internal regulations. Implementation date 30.10.2015 b) **Implemented** - PKP Cargo S.A. Has improved the number of internal audits of the Safety Management System. Pursuant to the "Schedule for internal audits of the SMS for 2016", there will be 24 audits carried out in total in the Company's Facilities and HQ's Offices. Implementation date 31.12.2016 c) **Under implementation** - Internal audits of the Safety Management System, including the P/12 Procedure *Maintaining the rolling stock in a working*

		order, will be carried out in all Company's Facilities and in the HQ's Office that holds substantive responsibility for notions referring to the rolling stock maintenance process, pursuant to the accepcted "Schedule for internal audits for the SMS for 2016". Final implementation date: 31.12.2016 *No control actions in the scope of recommendation implementation were carried out.*
6.	In relation to the Safety Management System, PKP Polskie Linie Kolejowe S.A.: a) full implementation of the safety management system in all organizational units, especially the risk assessment procedure (SMS-PR-02), SMS-PW-1 procedure entitled "Maintaining a railway line in a working and organizational order" and the Procedure of "Corrective and preventive actions" (SMS-PD-05), b) improvement in the number of complex SMS audits in facilities of PKP PLK S.A.	<u>Regarding PKP PLK S.A.</u> **Implemented** by 1 entity (100%) a) Safety Office of the Company HQ, in a letter communicated to all railway facilities and organizational units of the Safety Office recommended to: ➢ analyze the results of diagnostic activities carried out in the scope of railway surface in 2015, and the current status of recommendations implementation - carried out by a team composed of the Technical Deputy Director of the Railway Facility, Chief Engineer, Head of the Road Department, Heads of the Road Exploitation Sections (or their deputies); ➢ after completion of the above-mentioned analysis, to carry out a risk assessment pursuant to SMS-PR-02 procedure for the whole Facility of the Railway Lines, which will cover all faults to the railway surface that were not removed, in order to undertake preventive actions. The risk analysis must consider the impact of faults occurring in various tracks within the same location, e.g. a station, on the level of safety, and an attachment to a corresponding report must be a schedule for removing all identified faults with specified safety measures (risk control measures), implemented until they are removed. Company's organizational units that are addressees of the above-mentioned order, provided the Safety Office with certain feedback. They informed that implementation of the Safety Management System takes place on current basis, especially as a continuous process, employing the SMS-PW-01 procedure entitled "Maintaining the railway line in technical and organizational order", and the SMS/MMS-PR-02 Procedure called "Technical and operational risk assessment", implementing the corrective and preventive actions. Furthermore, the Company's organizational units

		informed that they carried out a risk analysis covering the faults of the railway surface that were not removed, and that they implement additional risk monitoring measures in the scope of preventive actions (SMS/MMS-PD-05), until the faults are removed; b) The Safety Office of the Company HQ, in a letter communicated to all facilities of railway lines and organizational units of the Safety Office, recommended to increase the number of complex audits in 2015 to 10, and to refer the auditing plan for the I half of 2016 to complex audits amounting to 5, in order for the complex audits to cover all Facilities of Railway Lines till the end of the II quarter 2016. The Safety Management System department of the Safety Office of the Company HQ (IBR2) - an addressee of the above-mentioned order, provided certain feedback in the scope of implementation of the recommendation in question. The Safety Management System department prepared an annex draft for the Framework auditing plan for 2015, extending the number of complex audits to 10. Implementation status as of 31.12.2015 is completion of 10 (ten) complex audits. *There were actions undertaken, intended to remove any irregularities that were identified during monitoring actions. In case of a single Company Facility, as suggested by information provided by the Company, the dispositions arising from the Monitoring protocol were not implemented.*
7.	PKP Cargo S.A. shall undertake actions intended to follow the principle of utilizing consumables for speedometers that are authorized by manufacturers, including tally rolls.	<u>Regarding PKP Cargo S.A.</u> **Alternative actions** were undertaken by 1 entity (100%) PKP Cargo S.A., in case of the exploited vehicles' speedometers utilizes the tally rolls by Hasler, meeting the requirements provided for in the Polish standard PN-C_99221, pursuant tot which its parameters were confirmed for application with the territory of our country. *No control actions in the scope of recommendation implementation were carried out.*

As a result of serious accident - cat. A21 that took place on 3 June 2015 at 15.45 at cat. D level crossing, located on the Kornatowo - Grudziądz Mniszek route, on track No 1, at 36.658-kilometer points of the railway line No 207 Toruń Wschodni - Malbork, the PKBWK investigation team recommended implementation of the following actions:

No.	CONTENT OF THE RECOMMENDATION	IMPLEMENTATION
The recommended preventive measures issued by the National Railway Accident Investigation Committee after the accidents, requiring immediate actions:		
1.	In a letter No PKBWK.4631.52.2015.BP of 31.07.2015, PKP Polskie Linie Kolejowe S.A. was directed to level the excess of ground at the left side of the access route to the level crossing located at 36.658-kilometer point in order to profile this road's shoulder properly, i.e. To improve visibility of approaching trains from a road vehicle.	Regarding PKP PLK S.A. **Implemented** by 1 entity (100%) On 07.08.2015, i.e. after a consent was expressed by PKBWK and performance of on-site verification, the excess of land was leveled on the left side shoulder of the access route to the level crossing located at 36.658-kilometer point, in order to improve visibility. *During the performed monitoring actions, it was identified that an ad hoc recommendation issued by PKBWK in this scope was not implemented. The next control allowed to find out that the recommendation is implemented.*
2.	Bearing in mind lack of possibility to achieve technical conditions in accordance with requirements provided for in the "Regulation of the Minister of Infrastructure and Development of 20 October 2015 on technical conditions that must be met by railway lines and sidings level crossings and their location" (Journal of Laws Dz.U. of 2015, item 1744), an infrastructure manager and a road manager should consider a possibility to eliminate irregularities through: a) liquidation of the railway and road level crossing D. cat at 36.658-kilometer point, and replace it with a pedestrian crossing - cat. E with a labyrinth, b) drawing a public road in parallel to the track towards the cat. C crossing level located at	Regarding PKP PLK S.A. **Under implementation** by 1 entity (100%) In order to implement the recommendation, the Railway Facility in Bydgoszcz held three meetings with the Lisewo Commune Head on 3.11.2015, 19.01.2016 and 26.01.2016. Purpose of the meetings was to specify the cooperation principles and the implementation manner of PKBWK recommendations. During the meetings and realized visual inspections on-site, the parties made a decision to build an access road to the cat. C crossing level at 36.914-kilometer point of the railway line No 207. Currently, it is impossible to specify the deadline for preparation of the road in question as the Lisewo Commune Head does not hold a legal title to dispose of the land for construction purposes in the location of the future road. The legal title will allow to commence the investment process, whcih will cover, among others, development of the design documentation and performance of a tendering procedure for the works contractor and realization of the intended plan. Liquidation of the railway and road level crossing D. cat at 36.658-Kilometer point

	36.226-kilometer point.	will take place after the road is constructed. *During the performed monitoring actions, it was identified that an ad hoc recommendation issued by PKBWK in this scope was not implemented. The next control allowed to identify actions intended for implementation of the recommendation, i.e. during inspection of level crossings, the committee composed of representatives of the railway infrastructure manager and the adequate road manager, i.e. the Lisewo Commune Head, recommended liquidation of the level crossing and replace it with cat. E pedestrian crossing with a labyrinth, and to draw a new public road that would be connected to the road running through the neighboring C cat. crossing level located at 36.226-kilometer point. The opinion mentioned above was included in a memo No IZKI-732-67/2015 of 29 July 2015.*
3.	PKP PLK S.A. shall carry out extraordinary verification of currentness of cat. D level crossings metrics, especially in terms of currentness of data related to the visibility from the train front from 5, 10 and 20 meters from the extreme rail.	<u>Regarding PKP PLK S.A.</u> **Implemented** by 1 entity (100%) To 30 September 2015, all Facilities of the Railway Lines, following the order issued by the Management Board of PKP Polskie Linie Kolejowe S.A. carried out the inspection of safety conditions on cat. D level crossings located on railway lines, where the speed of trains reaches at least 40 km/h. Special attention was paid to visibility conditions in the vicinity of the level crossings and signs from the side of road and track. Findings from the performed monitoring of D cat. Level crossings were recorded in the level crossings metrics. If there were certain lacks in signs of the level crossings found out from the side of track or road managed by the Facility - they were immediately complemented or ordered. If lack of signs, managed by the road management, was found out - the Facilities were obliged to inform adequate road administration about a necessity to complement the signs, within 7 days from identification of the irregularity. If no proper visibility conditions were identified, the Railway Facilities implemented actions intended to improve them by: cutting grasses, bushes and trees with their own resources or by outsourcing these activities, or they commenced proceedings to obtain a permission to cut the trees, or informed owners of private parcels that there is a need to remove the trees, bushes, fencings or other elements that disturb visibility on the level crossing, etc. There were numerous situations of introducing speed limits of trains, until proper visibility was reinstated.

		No irregularities in the scope of recommendation implementations were found out during control activities.
4.	PKP PLK S.A. shall undertake actions intended for: a) more effective supervision over giving opinions and commissioning of documentation drafts related to revitalization and modernization of railway lines, especially in order to ensure conformity of design documentation with applicable technical and national regulations; not limiting the designers with a functional and utility programme, making them unable to implement projects in a manner compliant with the national regulations, b) more effective supervision over final commissioning of works, especially provision of conformity of the realized works with the applicable technical and national regulations and design documentation.	<u>Regarding PKP PLK S.A.</u> a) **Under implementation** by 1 entity (100%) There will be a review carried out over internal regulations of the Company, related to the Terms and Conditions for Investment Project Assessment Teams, aimed at improvement of supervision and selection of team members, who would express their opinions and commission the design documentation. The currently applied base documents, related to the functional and utility programme, covers certain provisions - cit.: "Implementation of the task entitled *Works on a railway line* will be carried out in the "design and construction" system, based on (Terms of Contract) FIDIC (yellow book) - issue of 1999, translation of 2000. The whole subject of the order covers realization of the following elements: design documentation necessary for safe and secure performance of all required works, developed on the basis of land surveying documentation for design purposes (among others design documentation, construction project, executive design, traffic flow plan), and for all required opinions, arrangements, permissions, conditions, decisions and permits (...)". Furthermore, in accordance with the base document FUP (Functional and Utility Programme) PART II - INFORMATIONAL POINT 2 – „Legal provisions and standards related to design and drawing up of a construction project": "Implementation of the order is governed by the Polish law. The Contractor shall be obliged to follow changes in legal provisions and Regulations of the Ordering Party, and to realize the order in accordance with the applicable legal provisions and

		Regulations of the Ordering Party within the scope of the Accepted Contractual Amount, with reservations to provisions of the Contract". This provision directs the contractor to follow the applicable legal regulations during realization of the design procedure. These provisions do not limit the designer, making them unable to implement projects in a manner compliant with national regulations. *No control actions in the scope of recommendation implementation were carried out.* b) **Under implementation** by 1 entity (100%) The Investment Implementation Center submitted a letter to the Railway Bureau, Railway Exploitation and Facilities Bureau with a request for proposal for changes in internal regulations related to final commissioning of works in the scope specified in the PKBWK recommendation. Furthermore, in the Railway Traffic Safety Improvement Programme 2016 the Investment Implementation Center specified persons responsible for realization of monitoring actions and additional requirements related to inspections, i.e. they need to be carried out once per two weeks or after being informed about commencement of final commissionings of works in design teams or units related to implementation of an investment. Regions of the Investment Implementation Center were directed to consider information about the performed monitoring activities in the quarterly and annual reports, from implementation of the Railway Traffic Safety Improvement Programme 2016 . In the base document, the supervision duty over the Engineer was provided with a series of responsibilities related to the investment works commissioning procedure, related both to physical realization of works (their quality, number and compliance with the agreement), and verification of documentation prepared by the Contractor, protocols, certificates and commissioning documentation, in the context of conformity with applicable regulations, interoperability conditions and terms of contract. Moreover, within the scope of base documentation update, in the part related to duties in the scope of quality management, measurements and land surveying works verification, there will be provisions introduced that oblige the Engineer to supervise, among others: "the process of handing copies of the setting out sketches and copies of inventory measurements, measurements of sight triangles at the level crossings or measurements of clearance gauge of the Ordering Party's track - Real Property and National Land Surveying Bureau". *No irregularities in the scope of recommendation implementations were found out*

		during control activities.
5.	In relation to the Safety Management System, PKP Polskie Linie Kolejowe S.A. shall undertake actions intended to: a) carry out an extraordinary complex audit of SMS in relation to the Railway Line Facility i Bydgoszcz, especially in the scope of SMS procedures: PR02, PW-01, PR-03, PD-02, PW-09 and PW-11 and to take up adequate corrective actions, if necessary;	Regarding PKP PLK S.A. (100%) a) **Under implementation** by 1 entity (100%) An extraordinary complex audit of the Safety Management System in the Railway Line Facility in Bydgoszcz, in the implementation scope of the following procedures: SMS/MMS-PR-02, SMS-PW-01, SMS/MMS-PR-03, SMS-PD-02, SMS-PW-09 and SMS-PW-11 is planned to take place in the IQ 2016. *No control actions in the scope of recommendation implementation were carried out.*

	b) modify the procedure of information flow about threats, reported by level crossings users (including postulates put forward by residents of areas located in the vicinity of level crossings) or infrastructure manager's employees, in such a manner that the Railway Line Facility inform the Safety Office Director about such situation every time, who then order adequate actions with a purpose to eliminate or minimize those threats;	b) **Implemented** by 1 entity (100%) § 7 Procedures SMS / MMS-PD-04 "Monitoring and continuous improvement of the Safety Management System and the Maintenance Management System" was modified. What is more, via the Information Bulletin, all Railway Line Facilities were directed to communicate information about threats reported by users of the level crossings (including postulates of residents of the areas located in the vicinity of level crossings) or employees of PKP PLK S.A. after initial verification and justification, pursuant to the principles provided for in § 7 of the recalled SMS / MMS-PD-04 procedure. All new threats are managed by the Railway Line Facilities in accordance with the principles stipulated in the SMS/MMS-PR-02 procedure "Assessment of technical and operational risk". *No control actions in the scope of recommendation implementation were carried out.*
	c) More effective monitoring and analysis of particular dangerous situations occurring within the area of a railway network of the infrastructure manager, including an increase of speed, especially in relation to cat. D level crossings;	c) **Implemented** by 1 entity (100%) The principle is constant monitoring and analysis of data related to occurring dangerous situations. What is more, according to the SMS / MMS-PR-03 procedure "Change management", there are Teams called to evaluate significance of the change for an exploitation modification of increasing the maximum permitted speed. *Inspections were carried out in three Facilities of the Company. In one case there were irregularities identifies, which were grasped in the inspection protocol and the inspection follow-up.*
	d) further increase in the number of complex SMS audits in relation to all organizational units of the infrastructure manager.	d) **Implemented** by 1 entity (100%) Framework audit plan for Safety Management System for 2016 (a document of 17.12.2015) assumes an increased number of complex audits of the Safety Management System from 5 (five) to 8 (eight) in the Railway Facilities. Complex audits of the Safety Management System pose a permanent element of the annual framework plans. *No control actions in the scope of recommendation implementation were carried out.*

	e) entries into the Register of threats for level crossings kept within the SMS, of the threats identified in this Report, i.e.: - improper longitudinal inclination of accesses, improper type of surface, non-conforming with the "Regulation of the Minister of Infrastructure and Development of 20 October 2015 on technical conditions that must be met by railway lines and sidings level crossings and their location" (Journal of Laws Dz.U. of 2015, item 1744), - in point 8.6.8 "Register of threats", i.e. "no evaluation of the change significance before creation of the level crossing", must be complemented with "no evaluation of the change significance during the design and implementation procedure for the line modernization or revitalization";	e) **Implemented** by 1 entity (100%) Threats identified by the National Railway Accident Investigation Committee are stipulated in the "Register of threats" of PKP Polskie Linie Kolejowe S.A. in a revision applicable since 28 December 2015. *No control actions in the scope of recommendation implementation were carried out.*
	f) PKP PLK S.A. shall undertake actions intended for more effective verification of correctness of road traffic intensity on level crossings, by roads managers, and in case of any irregularities in this scope, the company shall inform the road managers that it is necessary to carry out measurements pursuant to the applicable regulations.	f) **Implemented** by 1 entity (100%) If Railway Line Facilities find out that the road traffic intensity is not measured, or there are any irregularities in such measurements, they will inform the road managers that is is necessary to carry out the measurements pursuant to the applicable regulations. The Safety Office provided the Railway Facility with a letter regarding change in the manner of specification of the road traffic intensity on level crossings, pursuant to the Regulation of the Minister of Infrastructure and Development of 20 October 2015, on technical conditions that must be met by railway lines and sidings level crossings and their location (Journal of Laws Dz. U. of 2015, item 1744). What is more, all Railway Line Facilities, pursuant to provisions related to the above-mentioned regulation, implement the order by the Deputy President - Exploitation Director related to implementation of new regulations, including those referring to specification of the exposure factor according to the principles provided for in Attachment 1 to the above-mentioned regulation.

		Furthermore, the Railway Line Facilities, to 30 November 2015, informed all road managers that there is a need to plan costs, and to carry out first measurements of road traffic intensity in 2016, pursuant to the new regulations for all public level crossings. If there was no response from the road manager, related to the planned measurement of road traffic intensity in 2016, the Railway Line Facilities, to 15 January 2016, called such a road manager to plan those actions (notifying the Prosecutor's Office). They also informed the manager that failure to take any actions in this scope can also cause liquidation of the level crossing. During subsequent years, the Railway Line Facilities will provide applicable road managers with letter calling for road traffic intensity measurement, based on regulations § 14 and Attachment 1 of the above-mentioned regulation, also based on § 7 para 2 of the SMS/MMS-PW-13 Procedure "Cooperation with infrastructure managers, users of railway sidings and other railway traffic user, including the scope of maintenance". *There were some irregularities found out during the inspection, which were removed.*
6.	Railway infrastructure managers should consider the fact that while designing modernization or revitalization works of the railway lines, the designer should verify the communication outline of roads as a whole that is functionally connected with level crossings. During the design phase, it is justified to prepare the organizational change proposal for such roads in an applicable impact area, in vicinity of level crossings, in such a manner that re-organization of such an outline enables re-direction of traffic to neighboring level crossings of at least the same category, in order to channel the traffic in a single spot (a level crossing). This actions should lead to liquidation of unnecessary level crossings. Local administration authorities and road managers should cooperate with the	<u>Regarding infrastructure managers</u> **Implemented** by 3 entities (27%) The entities implemented the recommendation, among other by considering the fact that while designing modernization or revitalization works of the railway lines, the designer should verify the communication outline of roads as a whole that is functionally connected with level crossings. However, bearing in mind the scope of the works performed by the entities, which do not anticipate modernization of revitalization of railway lines, it is not necessary to implement such a solution. **Under implementation** by 7 entities (64%) **PKP PLK S.A.** Feasibility Studies Bureau, Railways Office of the Company HQ and Investment Implementation Center took the following position. 1. During the process of pre-project documentation preparations, related to modernization works and revitalization of railway lines, there are possibilities of railway and pedestrian traffic reorganization analyzed for the existing road systems, connected functionally with level crossings, with a purpose to liquidate

	infrastructure manager within a given area covered by the mentioned works to achieve the above-mentioned objective.	those that are redundant. There are activities undertaken on a current basis, intended to improve traffic safety by considering liquidation of level crossings of the lowest categories within the design preparation process. Local committees are designated for that purpose, including the Provider of documentation, Railway Lines Facility, local Road infrastructure manager, examining technical possibilities of reconstruction of the communication systems in the context of local social needs. Requirements related to the above-mentioned actions and analysis result directly from provisions of base documents templates, applicable in the Company and related to pre-project documentation, i.e.: for the currently prepared pre-project documentation, realized within the framework of the Operational Programme Infrastructure and Development 7.1-103, the Contractors performed works on the basis of the following Description of the Object of Contract (drawn up in 2004), based on the regulation of the Minister of Transport and Maritime Economy of 26.02.1996, on the technical requirements to be met from the crossing of railway and and public roads and their location: *„Point 4.6.3. Level crossings, roads and freight yards.* The Contractor shall propose a detailed model (of quantitative and qualitative guidelines based on traffic flows, impact on capacity of the line, population density and an outlay of local roads) for development of actions priorities, for reconstruction of level crossings, divided into following groups: 1) planned for liquidation; 2) intended for reconstruction (details to be specified); 3) intended for replacement with two-level crossings. Bearing in mind the possibility of liquidation of the level crossings and their replacement with two-level crossings in modernized variants, the Contractor shall propose new solutions for road connections. The Contractor shall suggest an exact value and particular location of the roads, specifying the area that they will be realized in. These works should be preceded with an analysis of the local roads distribution. All cases related to new solutions for local roads, in case of liquidation of a level crossing or construction of a two-level crossings, should be agreed on with applicable road managers and territorial administration bodies. The Contractor shall carry out social consultations related to the level crossings liquidation. The work should consider provisions, regulations of the Minister of Transport and Maritime Economy of 26.02.1996 - technical requirements to be met from the crossing of railway and and public roads and their location. Conclusions

		should be based on arrangements made by the Committee, according to § 22 of the Regulation. Decision about liquidating or leaving a particular crossing untouched should be based on a comparison of indicative expenditures that would arise from leaving or (development of device, work of a lineman) liquidating the crossing (construction of parallel roads, a viaduct, etc.)...". When it comes to the Description of the Object of Contract, prepared for implementation of Detailed Guidelines within the Regional Operational Programme of Voivodeships for 2014-2020, the provisions related to works carried out on level crossings, and those related to improvement of their safety will be based on provisions of the Regulation of the Minister of Infrastructure and Development of 20.05.2015, technical requirements to be met from the crossing of railway lines and sidings with public roads and their location. (Journal of Laws Dz.U. of 2015, item 1744), with the following wording after implementation of amendments: *„Point 5.1.8. Road network, including road surface of railway and road crossings".* The Provider of documentation shall propose a detailed model (of quantitative and qualitative guidelines based on traffic flows, impact on capacity of the line, population density and an outlay of local roads) for development of actions priorities, for reconstruction of road and railway crossings, divided into following groups: 1) planned for liquidation; 2) intended for reconstruction (details to be specified); 3) intended for replacement with two-level crossings. These works should be preceded with a detailed analysis of the local road distribution and burden with road traffic. Decision about liquidating or leaving a particular crossing untouched should be based on a comparison of indicative expenditures that would arise from leaving or (development of device, work of a lineman) liquidating the crossing (construction or use of parallel roads)...". The Contractor shall carry out consultations related to the level crossings liquidation. The work should consider provisions, regulations of the Minister of Infrastructure and Development on technical requirements to be met from the crossing of railway lines and sidings with public roads and their location. In case of level crossings liquidation or emergence of collisions, the Contractor shall propose new solutions for (local) road connections. All cases related to new solutions for local roads should be agreed on with applicable roads managers, pursuant to § 38 of the regulation. The Contractor shall present an analysis of each level crossing,

		embracing also the notion of visibility conditions on road and railway crossings...". 2. The Investment Implementation Center, during another update of based documents in relation to the Description of the Object of Contract for drawing up of pre-project documentation, Functional and Utility Programme for proceedings related to design and performance of construction works, and during development of the base document for the Description of the Object of Contract for drawing up of design documentation with the Railways Office shall agree on provision that will be included in those base documents, pursuant to point 6 of the Recommendations issued by the National Railway Accident Investigation Committee. Until the above-mentioned regulations are drawn up, the Safety Management System (SMS) team, shall consult the tender documentation in the matter raised in point 6 of the Recommendations issued by the National Railway Accident Investigation Committee, if the project scope assumes this. The Railway Lines Facilities, within the held competence, shall take part in the designing process (Assessment Team for Investment Projects, ZOPI), present their notes in order to implement the recommendation, and while being a part of Study Works Assessment Teams (ZOS), they shall pay attention to the above-mentioned aspects, and in case of wider field expertise, propose particular solutions or ensure the Study provider with directions of actions for given locations. By recommending verification of the communication roads network to the same designers, in such a manner that re-organization of such an outline enables re-direction of traffic to neighboring level crossings of at least the same category, in order to channel the traffic in a single spot (a level crossing). Apart from that, there are meetings with local authorities organized in the scope of formal and legal issues related to existence of some level crossings. The remaining infrastructure managers implement their recommendation by, among others: • including cooperation with territorial authorities intended for arrangement of optimum implementation variants, into the study works at implementation of the feasibility Studies and documents related to reconstruction or construction of railway infrastructure, • consideration of the communication network of roads as a whole that is

		functionally connected with the crossings, during the design process for modernization or revitalization works to be carried out on railway lines in the future, • liquidation or an increase of the category of crossings, • implementation of changes to the procedures, related to maintenances of infrastructure efficiency and technical resources, in related to the necessity of considering the PKBWK and UTK President recommendations in case of modernization or revitalization of a railway line. **It will not be implemented** by 1 entity (9%) The Company is not planning to modernize the railway line allowing to increase the speed on the routes in the upcoming years. Within the scope of current maintenance and realized renovation of the surface, it is possible to maintain the infrastructure in a condition allowing a safe flow of railway traffic. *No irregularities in the scope of recommendation implementations were found out during control activities.*
7.	As a result of the monitoring procedure, where the President of the Railway Transport Office (UTK) identifies certain irregularities, among others, in signs or technical conditions that do not conform with provisions and regulations applicable on a given level crossing, he should inform the manager of this road and an applicable body governing the traffic on roads.	During the monitoring procedures carried out from January 2015 to the end of March 2016, the above-mentioned safety recommendation was implemented in case of 17 monitoring actions. When it comes to irregularities in the scope of level crossings, applicable road managers or bodies competent for traffic governance were informed about violation of regulations in 22 letters.

As a result of serious accident - cat. A18 that took place on 11 July 2015 at 17.10 at cat. A level crossing, Located on the Gałkówek - Koluszki route, on track No 1, at at 23.506-kilometer point of the railway line No 17, Łódź Fabryczna - Koluszki, the accident investigation team from PKBWK recommended implementation of the following actions:

No.	CONTENT OF THE RECOMMENDATION	IMPLEMENTATION
Recommended preventive measures intended to avoid such accidents in the future or to limit their effects:		
1.	Analyze the need to fence the lookout station on the level crossing, at 23.506-kilometer point from the side of the road and parking, in order to eliminate direct access of third persons to the lookout station's doors and windows. What is more, verify whether there is a need to fence other lookout stations on level crossings located in a similar manner, with facilitated unauthorized access of third persons.	Regarding PKP PLK S.A. **Under implementation** by 1 entity (100%) The Railway Line Facility in Łódź called the Team for Analysis of Recommendations issued by PKBWK, under direct supervision of the SMS Coordinator. The task of the called Team is to analyze the need to fence the lookout station on the level crossing at 23.506-kilometer point from the side of road and parking, in order to designate the boarder of the railway area, and thus to eliminate direct access of third persons to the lookout station's doors and windows. Furthermore, the designated Team shall verify whether there is the same need for level crossing lookout stations located in a similar manner, with facilitated unauthorized access of third persons. *No control actions in the scope of recommendation implementation were carried out.*
2.	Clarify the provisions of Technical Regulations related to operation of crossings on the line (especially on 20.831, 22.005 and 23,506-kilometer points) related to the spot, where an employee operating the crossing is located while the train is traveling through the crossing, considering the meaning of the phrase "at the post's window", point III.6. The Regulations should carefully specify the manner of carrying out the lineman's duty, arising from § 13 para 3 *"Instructions for operation of railway crossings"* Ir-7 (R-20) PKP PLK S.A., this provision can have the particular wording - "at the open post's window", also specifying a particular side and	Regarding PKP PLK S.A. **Under implementation** by 1 entity (100%) There was an order issued for the Exploitation Section within the area of the Railway Facility of Łódź stating that all Technical Regulations for operation of cat. A level crossings should be analyzed in terms of provisions in point III.6, related to the spot, where the employee operating the crossing while the train is passing should be located, and the manner of displaying the D8 signals, and if there is such a need, that the provisions in that scope should be clarified. Implementation of that recommendation is supervised directly by the SMS Coordinator. *No control actions in the scope of recommendation implementation were carried out.*

	window of the post, as well as the manner of displaying the D8 signal by the lineman, and the manner (place) of displaying the D7 or D2 signal, if there is such a need.	
3.	Align real configuration of the lineman's work post on the level crossing at 23.506-kilometer point of the line No 17 with the content of as-built documentation, having agreed on an optimum configuration of this post	Regarding PKP PLK S.A. **Under implementation** by 1 entity (100%) Team for Analysis of Recommendations issued by PKBWK, supervised directly by the SMS Coordinator was designated, with a purpose to align real configuration of the lineman's post on the level crossing at 23.506-kilometer point of line No 017, and content of as-built documentation, having agreed on an optimum configuration of this post. *No control actions in the scope of recommendation implementation were carried out.*
4.	Cat. A level crossings, equipped with level crossing warning signals (TOPs) or designed with such devises should ensure selectiveness for switching TOP on regarding a given track and the direction, from which the train approaches the crossing. The signal displayed on TOPs should depend on the status of gate arms, and not only on the condition of warning the road users by light signals. After the Osp2 signal is displayed on TOP, the lineman should be capable of opening the gate arms before a train passes the crossing only after a special order (or another special manner of devices operation).	Regarding PKP PLK S.A. **Under implementation** by 1 entity (100%) Pursuant to the provisions provided for in § 53 para 1 and § 58 para 6 of the Regulation of the Minister of Infrastructure and Development of 20 October 2015 on technical conditions that must be met by railway lines and sidings level crossings and their location, newly-constructed cat. A level crossings must be equipped with level crossing warning signals (TOPs), working in a selective manner for a track and direction of the moving rail vehicle. The TOP signal, according to § 58 para of the regulation referred to, will depend on the fact that the operation employee failed to close the gate arms, and lack of the gate arm pole continuity in case of cat. A or E level crossings, operated remotely. The possibility to provide the new semi-automatic passing systems with a function of partial locking of the gate arms opening after the signal is displayed on TOP shall be analyzed by the Automatics and Telecommunication Bureau and if such possibilities occur, it will be included in the Technical and Functional Requirements developed in 2016, related to traffic safety systems on rail and road crossings. *No irregularities in the scope of recommendation implementation were found out during control activities.*

5.	Provide the possibility for work of all persons authorized to operate the SCP-2 system with application of their own identifier and passwords, pursuant to the Technical Regulations of the station, without a reserve identifier - "Jan Kowalski".	Regarding PKP PLK S.A. **Implemented** by 1 entity (100%) Only those persons are registered in the SCP2 system who are authorized to operate it, and who use only their own login and password, pursuant to the station's Technical Regulations. The reserve identifier - "Jan Kowalski" - was eliminated from the system. The recommendation was implemented on 02.02.2016. *No control actions in the scope of recommendation implementation were carried out.*
6.	Verify validity of temporary certificates for operation of SCP-2 and SPD-2 systems, in accordance with requirements provided for in documentation of the utilized devices.	Regarding PKP PLK S.A. **Under implementation** by 1 entity (100%) Team for Analysis of Recommendations issued by PKBWK under direct supervision of the SMS Coordinator shall verify validity of the temporary certificates for operation of SCP-2 and SPD-2 systems, in accordance with requirements provided for in documentation of utilized devices. *No control actions in the scope of recommendation implementation were carried out.*
7.	In relation to workers employed on positions regarding railway traffic safety, which require authorizations, to eliminate cases - nonconforming with the applicable regulations - when the work is carried out by persons without documentation that would include current entries on the performed actions.	Regarding railway undertakings and infrastructure managers **Implemented** by 69 entities (76%) The entities implemented the recommendations, among others through: • replacement of authorizations issued for workers employed on positions related to railway traffic safety, into authorizations with current entires covering the realized actions, • realization of monitoring actions on positions that are directly related to operation and safety of railway traffic, and with driving specific types of rail vehicles, with a purpose to verify the held authorizations and currency of entries, with special attention paid to the entries regarding authorization. **Under implementation** by 15 entities (17%) • random checks of workers employed on position related to railway traffic

		safety, in terms of required authorizations and currentness of entries. **It will not be implemented** by 1 entity (1%) **Alternative actions** were undertaken by 1 entity (1%) 5 entities **failed to give any opinion** (5%) *No irregularities were identified during control actions related to implementation of the recommendation in four entities. Two entities are currently carrying out the process of documentation update.*
8.	Specify, within the railway regulations and instructions, detailed principles regarding the place of emitting the "Warning" signal by a train driver, towards the W6a indicator location in cases, when the travel situation (indications of semaphores) or location of the stop suggest significantly longer time of the train approach to the level crossing than if it traveled with the maximum permitted speed (for which the indicator location is determined). The requirement should assume that the "Warning" signal is displayed in such cases at such a distance from the crossing that corresponds to the time for passing through the section from the spot, where this signal is located, to the level crossing which it refers to, when a train moves at a maximum permitted speed. If above-mentioned situations repeat frequently, replacement of the W6a signal with W6b should be considered . Similar regulations are required by warning principles for W6 and W7 signs.	<u>Regarding railway undertakings and infrastructure managers</u> **Implemented** by 26 entities (29%) The entities implemented the recommendations, among others through: • verification of signals positions in the infrastructure, which proved that all W6a signals are located in accordance with principles provided for in regulations on technical conditions that should be met by railway crossings with roads, and there is no need to change their localization; • the manual for a driver of a rail vehicle was complemented with detailed principles on the place, where the "Warning" signal is displayed. **Under implementation** by 24 entities (26%) The entities shall implement the recommendations, among others through: • the Cross-Sectoral Recommendation Implementation Team will be designated. The Team shall present an opinion on harmonization of regulations in terms of the place of displaying the "Warning" signal by the train driver, towards the place, where the W6a signal is situated; • contents of internal regulations for the train driver will be analyzed. **Alternative actions** were undertaken by 3 entity (3%) • The notion was discussed during periodic instructions. **It will not be implemented** by 7 entities (8%) An exemplary justification of non-implementation of a recommendation was a note

		made by one entity that the recommendation should be implemented by the Infrastructure Managers by changing provisions of the Ie-1 (E-1) signalization instructions Chapter III § 16. and in regulations on technical conditions that the railway crossings with public roads and their location should correspond to. Actions for improvement of safety on railway crossings with public roads are performed by improvement of awareness among employees working on positions related to railway traffic safety, during organized periodic instructions. 31 entities **failed to give any opinion** *No control actions in the scope of recommendation implementation were carried out.*
9.	Include "good practices" in trainings for train drivers, consisting in sending of a long "Warning" signal, starting its transmission before the oncoming train is passed, especially in places exposed to intrusion of persons, such as platforms, level crossings, etc. Implementation of such a recommendation as a duties governed by regulations should be considered.	<u>Regarding railway undertakings</u> **Implemented** by 38 entities (47%) The entities implemented the recommendations, among others through: • ordering the workers of tractions teams to display the "Warning" signal in situations and places exposed to intrusion of persons under the oncoming rolling stock, and current discussions over the subject in question during periodic instructions and pilot drives, • Discussion of "good practices"principles related to transmission of the "Warning" signal, including transmission of the signal in dangerous places regardless to occurrence of W6, W6a W6b signals, during a training for candidates for a machine driver (a person driving a rail vehicle). **Under implementation** by 38 entities (47%) The entities implement the recommendations, among others through: • plans for discussion of the notion with the employees, carried out by the instructors, within the scope of additional trainings, in a form of ad-hoc instructions on a work position, and communication of "good practices" within the scope of additional trainings and periodical instructions, • during control drivers, the train drivers are verified in terms of transmitting the long "Warning" signal, if a situation demands it.

		5 entities **failed to give any opinion** (6%) *No irregularities in the scope of recommendation implementations were found out during control activities.*
10.	Consider purposefulness of separating - in the "Regiser of threats" in the SMS documentation of the infrastructure manager, PKP PLK S.A. - such improper behaviors of road users on a level crossing, as failure to follow suggestions presented by light signals, entrance to the level crossing while the gate arms are being raised or lowered, breaking the barriers, etc., from threat No 5.6.4 *"failure to conform with information suggested by (vertical and horizontal) road signs"* as it may contribute to actions intended for limitation or liquidation of this group of threats. Furthermore, make proper entries into the Register, related to threats of visibility limitation, caused by noise barriers, especially when they are located in the vicinity of level crossings. The mentioned threats are caused by road users not seeing the trains, including from the distance of 5 m from the extreme rail on cat. A level crossings, and machine drivers not seeing the road vehicle approaching the level crossing.	<u>Regarding PKP PLK S.A.</u> **Implemented** by 1 entity (100%) All threats listed in sub-point 10) are grasped in the "Register of threats" of PKP PLK S.A. (version of 28 December 2015). *No control actions in the scope of recommendation implementation were carried out.*
11.	During closest inspections of the lookout stations on all cat. A level crossings, PKP PLK S.A. shall control the trains approach area in terms of visibility from the spot of operating the barrier devices by the lineman, as well as visibility of the D8 signal transmitted by the lineman for drivers of trains approaching the level crossing, and if the visibility is limited, he shall take up adequate	<u>Regarding PKP PLK S.A.</u> **Under implementation** by 1 entity (100%) Via the Information Bulletin, PKP PLK S.A. ordered all Railway Lines Facilities to carry out the following actions during the closes inspections of cat. A level crossings: verify visibility of the approach zone of trains from the place of operating the barrier devices by the lineman, and visibility of the D8 signal transmitted by the lineman, for drivers of trains approaching the level crossing.

	preventive measures.	If the visibility is limited, to undertake corrective and preventive actions, in accordance with the Procedure SMS/MMS-PD-05 "Corrective and preventive" actions. *No irregularities in the scope of recommendation implementations were found out during control activities.*
12.	Implement prohibition of turning from DW 716: left into Kolejowa street, towards Gakówka, for vehicles passing through the level crossings, and left, into the parking at the lookout station, for vehicles passing through the crossing towards Żakowice Południowe. Photos of the place in question are included in chapter I.5.b) of this Report. Vertical signs B-21 *"no left turn"*, located before a crossing, as the distance after the crossing is lower than 50 m, should be properly complemented with horizontal signs.	<u>Regarding PKP PLK S.A.</u> **Under implementation** by 1 entity (100%) PKP PLK S.A. Turned to the Province Roads Authority in Łódź with a request to consider a possibility of introduction of B-21 signs "no left turn" on the provincial road No 716 Koluszki - Rokiciny - Piotrków Trybunalski, from the southern side, into Kolejowa street, towards Gałkówek, and from the northern side towards the parking next to the lookout station. *No control actions in the scope of recommendation implementation were carried out.*