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AIRCRAFT, MARITIME AND RAILWAY ACCIDENT INVESTIGATION
UNIT DIRECTORATE
(AMRAIUD)

FINAL REPORT

on

Technical investigation of a serious railway accident – collision between a diesel locomotive No 55078.0 and a motor vehicle – a car „Seat Toledo“ at a secured railway level-crossing, at Obelya halt on km 5+375 between Sofia-Voluyak railway stations on 09.10.2014.



November 2014

By the force of Order No ПД-08-584/22.10.2014 of the Minister of Transport, Information Technology and Communications, a Commission for technical investigation of a serious railway accident was appointed with the task to analyse the facts and circumstances and to find the causes for the accident occurrence as well as to prepare final report on the technical investigation performed.

In the course of the investigation, the Commission performed several inspections, carried out a confrontation with all the officials involved in the accident and required additional explanations to the presented one. The Commission analysed the presented by the Task Force report, and required additionally materials and documents to it in order to clarify the facts and circumstances.

1. Ascertained facts and circumstances within the investigation process.

At 13:45 hrs on 09.10.2014 by Order No 52/09.10.2014 of the train dispatcher from Regional operational dispatching unit (RODU) – Sofia, it was scheduled a train No 10997 in a composition of a diesel locomotive No 55078.0 ahead with a locomotive crew: engine driver – locomotive, first person and an engine driver – locomotive, second person and a transportation crew of a train master, and a diesel locomotive No 06122.6 with engine driver - locomotive and assistant engine driver - locomotive from Kostinbrod station to Poduyane marshalling yard on Sofia-Kalotina first railway line.

At 13:52 train No 10997 departed from Kostinbrod station as evident from the performed decoding of the speedometer tape of locomotive No 55078.0, achieved a speed of 53,5 km/h, followed a speed reduction to 48 km/h and speed maintenance, smooth reduce to 30 km/h and a sharp reduction to 0 km/h. The duty traffic manager-first person at Voluyak station undertook actions through the signalling equipment for the train acceptance on third unoccupied acceptance-departure track and the train was accepted by the duty traffic manager-second person at 14.00 p.m. at the station. Under an order of the first railway line train dispatcher, the diesel locomotive No 06122.6 remained at Voluyak station for servicing freight train No 50502, and the locomotive No 55078.0 continued its movement with the same train number to Poduyane marshalling yard.

The train No 10997 movement was ensured by the duty traffic manager-first person at Voluyak station and the duty traffic manager at Sofia station, western district, and with manipulations of the signalling equipment. In the journals of telephoned telegrams (Form II – 76) at both stations was recorded one for the departure of train No 10997, as the registered hours in columns No 4, No 5 and No 6 did not match.

In the telephoned telegrams log-book, Form II – 76 at Voluyak station with the rail level-crossing at Obelya a telephoned telegram was recorded with exchanged receipt numbers on the departure of train No 10997. Such a telegram however was not recorded in the level-crossing log-book.

At 13:50 p.m. from Sofia station departed passenger train (PT) No 13206 in a composition of Electrical multiple unit (EMU) No 30019.4/30020.2 with an engine driver-locomotive and transport brigade of a train master and a train conductor. The train run under the Train operation Schedule (TOS) in Sofia-Bankia direction. The train arrived at Obelya halt at 02:00 p.m. and departed to Voluyak station at 02:01 p.m. After its departure, the level-crossing guard on duty raised the level crossing barrier beams, turned off the light and sound alarms for the passage of road motor vehicles (RMT) through the level-crossing and went to the bathroom.

At 02:02 p.m. train No 10997, in a composition of diesel locomotive No 55078.0, departed from the third acceptance-departure track at Voluyak station to Sofia station with a regular exit signal and an order given with the order disk from the duty traffic manager-second person, at Voluyak station within normally functioning signalling equipment. The diesel locomotive was moving along the left track (named “Dragomanski”) between Voluyak-Sofia stations, firstly with 54,5 km/h, then a fluent acceleration up to 56,5 km/h followed and a speed reduction to 55,2 km/h. At the level-crossings on km 7+385 within the station area and on km 5+904 in the interstation, equipped with automatic level-crossing devices (ALCD), regularly activated depending on the exit and entrance signals at the station, the locomotive driver gave a sound signal „Attention“ with the locomotive horn.

While passing through the secured level-crossing at Obelya halt equipped with electrical barriers managed by a level-crossing guard, with a speed of 55,2 km/h, the diesel locomotive hit a car

make „Seat Toledo“ with reg. No CA 1214 HA, which passed at the same time through the level-crossing with lifted barrier beams (in a vertical position) and non-activated signalling. The locomotive driver immediately undertook quick stop with the automatic locomotive brake. After the collision, the locomotive dragged the car approximately 130 m along the track till its final stopping on km 5+245.

The duty level-crossing guard, situated in the bathroom of the level-crossing premises, heard a strong crash. Went out and saw a locomotive after the level-crossing on the left track (Dragomanski) in Sofia station direction. The guard sent the railway man, situated on the platform of Obelya halt to check what happened. Then called the duty traffic manager-first person in Voluyak station, and asked him for the type of the vehicle, which run along the Track of Dragoman. At that time received information from the railway man on an occurred collision with a car and informed the train dispatcher at Sofia station by the business mobile phone.

As a result from the collision, the passenger who was seating next to the car driver passed away.

The train master, freight traffic, who was travelling in the locomotive cabin, informed on the occurred accident the duty operator of telephone 112 and all the interested authorities.

During the accident occurrence there was a good visibility at the level-crossing at Obelya halt.

On the accident site arrived representatives of the competent state authorities for carrying out a pre-trial investigation. After the agreement and permission of the investigating officer, the Commission for the technical investigation of the Ministry of Transport, Information Technology and Communications (MTITC) carried out inspections to the diesel locomotive, car and equipment of the rail level-crossing. A written statement on the technical condition of the railway level-crossing was prepared by the Task Force. After completion of the inspections of pre-trial investigation and from the Commission for the technical investigation, there was given an authorization for initiation of the emergency rehabilitation works in order to remove the car from the track and to restore the train operation.

At 05:04 p.m. from Voluyak station departed a diesel locomotive No 55155.6 for traction of locomotive No 55078.0 from Obelya halt.

The two locomotives arrived at Voluyak station at 05:22 p.m.

Following the impact of the diesel locomotive No 55078.0 with the car on the level-crossing of Obelya halt the train operation between Voluyak and Sofia stations along the track of Dragoman was interrupted from 02:05 p.m. to 05:25 p.m. and along the track of Banski from 03:24 p.m. to 05:00 p.m. on 09.10.2014 for carrying out pre-trial and technical inspections.

2. Officials involved in the case.

2.1 Locomotive crew:

2.1.1. „Engine driver, locomotive“, first person, of a diesel locomotive No 55078.0 at Dupnitsa Locomotive depot, „BDZ Cargo“ EOOD - 19 years and 6 months of work experience;

2.1.2. „Engine driver, locomotive“, second person, of a diesel locomotive No 55078.0 at Dupnitsa Locomotive depot, „BDZ Cargo“ EOOD - 27 years and 7 months of work experience;

2.2. Transport crew:

2.2.1. „Head of freight traffic“ at Sofia 1 Business Centre, Sofia FTD, „BDZ Cargo“ EOOD - 13 years and 6 months of work experience;

2.3. Station officers:

2.3.1. „Traffic manager“, first person, at Voluyak station – officer at the Train operation management and station activity Division (TOMSAD) – Sofia, SE NRIC - 35 years and 3 months of work experience;

2.3.2. „Traffic manager“, second person, at Voluyak station – officer at the TOMSAD – Sofia, SE NRIC - 10 years and 11 months of work experience;

2.3.3. „Traffic manager“, at Sofia station – officer at the TOMSAD – Sofia, SE NRIC - 7 years and 2 months of work experience;

2.4. Other officers

2.4.1. „Traffic manager/senior train dispatcher on shifts“ at „Regional operational dispatching unit“ (RODU) – Sofia – officer at SE NRIC - 37 years of work experience;

2.4.2. „Traffic manager/train dispatcher“ at „Regional operational dispatching unit“ (RODU) – Sofia – officer at SE NRIC - 17 years of work experience;

2.4.3. Traffic manager/station dispatcher“ at “Regional operational dispatching unit“ (RODU) – Sofia – officer at SE NRIC - 17 years of work experience;

2.4.4. „Level-crossing guard, level-crossing on km 5+375 at Obelya halt“, TOMSAD - Sofia, officer at SE NRIC ” - 16 years and 2 months of work experience;

2.4.2. „Railway man” – Sofia Railway Section, officer at SE NRIC - 18 years and 6 months of work experience.

2. Physical condition of the officials involved in the accident.

To the officials, involved in the accident was assured the necessary duration of rest before starting the work shift as required by the Labour Code and Ordinance No 50 of 28.12.2001 on the Working time of the management and executive personnel, involved in the provision of passenger and freight rail transport.

To the officials, involved in the accident was performed pre-travel (pre-shift) instruction and they declared to be alerted, rested and that did not drink any alcohol and other drugs.

The officials, involved in the accident possessed valid certificates of psychological examination.

4. Documents, certifying work qualification and exercise of work position.

All the officials, involved in the accident, possessed the necessary work and professional qualifications for the respective work position and a certificate for its execution.

5. Activities of the officials before and during the accident.

Immediately before and during the accident all the officials except the traffic manager on duty- first person in Voluyak station acted in accordance with the established national regulations and internal rules, which regulate the safety of transport by rail.

The Duty traffic manager- first person in the station of Voluyak did not act in accordance with the regulations governing the transport safety in the rail transport. Before sending the train No 10997, he did not respect the technology and the rules for sending trains from Voluyak station according to the approved by the Director General of SE NRIC "Rules for the movement of trains and shunting activity in the railway transport" (RMTASAIRT) namely:

- To check and to verify that the interstation towards Sofia station was free and that he gave the train departure by a telephoned telegram, then he accepted and registered as per the established order and way with a receipt number from the duty traffic manager at Sofia station for the train acceptance;

- To order personally to the level-crossings along the interstation;

- To inform by a telephoned telegram on a special phone the level-crossing guards of the secured level-crossings at least 3 minutes before the train departure;

- To accept a receipt number from the duty level-crossing guard at Obelya level-crossing, after stopping the movement across the level-crossing and lowering the barrier beams in a horizontal position.

The Duty traffic manager- first person in the station of Voluyak was obliged after checking and being indisputably sure that the orders given by him were properly adopted and implemented and that the personally performed by him actions with the interlocking systems were correct and the train was ready to depart, to forward the documents to the train master or to the locomotive driver in person or through the traffic manager on duty- second person, and then to undertake an opening of the exit semaphore.

6. Circumstances, preceding the accident in terms of track, signalling equipment, catenary, rolling stock, etc.

Meteorological weather data, which had impact on the visibility of signals:

- air temperature - +18 °C;
- in the daylight hours around 02:00 p.m.;
- Good visibility.

Whether the brakes were activated before the accident and at what distance before the accident site happened the retention: immediately before the collision.

Whether the train acceptance at the station plan was respected: no reference.

Permanent way: regular.

Profile, geometry and permanent way layout: straight section with inclination 0,30 ‰ of the track of Dragomanski and 0,50 ‰ of the track of Banski towards Voluyak station.

Type of the station and interstation signalling condition and its status before the accident:

- At Voluyak – RRI MH-70 with route shunting - regular;
- At Sofia station - RRI „Russian block“ with route shunting - regular;
- Along the interstation – Semi-automatic block system (SABS) – regular.

Level-crossing equipment: electrically managed barrier with sound and light highway signalling by a level-crossing guard – regular and functioning.

Whether the barriers were lowered down: lifted (in a vertical position).

Contact network: regular, with no reference to the occurred accident.

Train composition station: Kostinbrod.

Communication equipment and telecommunication interfaces: technically regular.

Rolling stock:

The diesel locomotive No 55078.0 was technically regular, with regular draft gear, brake system, light and sound signalling equipment as per the technical standards and requirements, which is evident from the records in the respective log-books, presented in the Task Force report.

7. Fulfilment of the working procedures and technologies within the system of the SE National Railway Infrastructure Company before and during the accident.

The working procedures and technologies before and during the accident at the Train Operation and Station Activity Management Division – Sofia, part of the SE NRIC structure, before and during the accident **were not fulfilled**, which was described in the Task Force report, as well as from the materials and conducted interviews by the Commission for the technical investigation of the staff involved in the accident and witnesses.

5. Fulfilment of the procedures and technologies for rolling stock service within the railway undertaking system before and during the accident.

The diesel locomotive 0 55078.0, was with a regular locomotive brake and was provided with the necessary train documents. The locomotive and transport crews were equipped with business mobile phones.

At the time of the accident, the runs of the diesel locomotive No 55078.0 from the last plan repairs are shown in the table below:

TYPE OF THE REPAIR	INSCRIPTION DATE OF THE REPAIR	RUN FROM THE REPAIR
Overhaul repair (OR)	02.02.1996	3 747 wd
Hoist repair (HR)	21.02.2012	459 wd
Small periodical repair (SPR)	12.08.2014	52 wd
Technical inspection 1 (TI 1)	19.09.2014	21 wd
Equipment inspection (EI)	08.10.2014	

Within the review of the technical documentation for the accordance with the PP_PLS 200/11 "Prescription for inter repair runs and cycles of the planned inspections and repairs of diesel locomotives of "BDZ Cargo" EOOD was found that all the inspections and repairs were carried out according to the approved inter repair cycle. On 15.05.2014, periodic inspection of the brake system (PIBS) of the locomotive was performed in the locomotive depot in Dupnitsa.

Within the review of the technical documentation, there were not ascertained and recorded any infringements of the effective regulations for factory and depot repair and maintenance of diesel locomotives as well as of the organisation and operation related to the accident.

9. Railway infrastructure and rolling stock status before, during and after the accident.

The railway infrastructure and the rolling stock were in good working order before the accident.

As a result from the accident insignificant damages and failures were caused to the railway infrastructure and the diesel locomotive, which were detailed in p. 10.

10. Consequences from the accident.

10.1. Fatalities – 1, the passenger in the car;

10.2. Seriously injured – 1, the car driver;

10.3. Caused failures and damages to the rolling stock:

10.3.1. Diesel locomotive No 55078.0:

The diesel locomotive No 55078.0 is property of „BDZ – Cargo” EOOD, Dupnitsa Locomotive Depot.

The expenditures for the recovery of the damages caused to the diesel locomotive amount to 337, 82 BGN, without VAT.

10.4. Failures and damages to the rail infrastructure:

10.4.1. Permanent way and structures: none;

10.4.2. Signalling and communications, radio connections, power supply: none;

10.4.3. Catenary:

Caused damages to the catenary:

- Connecting terminal type „A“ – 4 pieces;
- Concrete iron ø 10 – 2 kg.

The damages, which were caused to the catenary amounting to 37,38 BGN without V.A.T.

10.5. Train circulation interruption:

As a result from the accident, the train circulation between Voluyak and Sofia stations along track No 1 was interrupted from 02:05 p.m. to 05:25 p.m. and along the track No 2 from 03:24 p.m. to 05:00 p.m. on 09.10.2014.

10.6. Caused train delay:

10.6.1. Delayed trains:

- train No 13207 – 09.10.2014 - „BDZ PS“ EOOD - 19 min.;
- train No 10207 – 09.10.2014 - „BDZ PS“ EOOD - 111 min.;
- train No 13208 – 09.10.2014 - „BDZ PS“ EOOD - 45 min.;
- train No 13210 – 09.10.2014 - „BDZ PS“ EOOD - 10 min.;
- train No 13209 – 09.10.2014 - „BDZ PS“ EOOD - 42 min.;
- train No 60203 – 09.10.2014 - „BDZ PS“ EOOD - 9 min.;

10.6.2. Cancelled trains:

- train No 10208 – 09.10.2014 - „BDZ PS“ EOOD;
- train No 10209 – 09.10.2014 - „BDZ PS“ EOOD;

10.6.3. Costs suffered due to the accident:

10.6.3.1 Sofia PSD, „BDZ Passenger Services“ EOOD – 2 501,15 BGN without V.A.T.

10.7. Rehabilitation means circulation – none.

11. Analysis of the causes for the railway accident.

From the additional inspections and measurements on the site and from the required by the Task Force materials was found that the investigated serious railway accident – a collision between the diesel locomotive No 55078.0 (train No 10997) and a motor vehicle car "Seat Toledo" with reg. No CA 1214 HA occurred at 02:05 p.m. at a railway level-crossing at Obelya halt on 5+ 375 km during transit passage along the track of Dragomanski between the stations Voluyak - Sofia with raised barrier beams in vertical position.

In accordance with the technical passport, the level-crossing on km 5 + 375 at Obelya halt was equipped with electrically handled barrier beams with sound and light signalling on the road without depending on the security equipment. The barriers were of "hand barrier with electric drive" type, which were lowered and raised by the duty level-crossing guard through a control panel (CP), installed at the entrance of the level-crossing premises. The barrier beams were driven by an electric engine, powered by set voltage of 220 V. Before the barrier mechanisms were installed two-section traffic lights that were equipped with flashing red lights and a sound alarm (horn). From both sides of the level-crossing along the road there were installed clearance gauge frames, signalized by a road sign No B 16. The level- crossing was signalized by road signs A 35 ("Balise") and pre level-crossing pointers.

The approaches to the level-crossing along the track from Sofia station side and from Voluyak station side are horizontal, as the visibility from both sides to the level-crossing is 200 meters.

The approach to the level-crossing along the road from the left to the mileage direction is asphalted and in a horizontal situation with visibility to the level-crossing of about 30 meters. The approach to the level-crossing from the right side to the direction of mileage is asphalted and with 5 ‰, inclination as the visibility to the level-crossing is approximately 150 meters.

At 01:50 p.m. passenger train No 13206 departed from Sofia station to Voluyak station along the Banski track. The train movement was ensured by the duty station master of Sofia station - central post, western area, and by the duty traffic manager,-first person in Voluyak station orally and in writing by exchanging telephoned telegrams and handling of signalling equipment. In the log-books for telephoned telegrams, Form II – 76, of the two stations was recorded a telephoned telegram on the train No 13206 departure. The duty traffic manager at Sofia Central Station post, western area, informed by telephone the duty level-crossing guard of Obelya halt before the train departure with telephoned telegram, recorded in the log-book under the order and method established. After the departure of the train from Obelya station to Voluyak station the duty level-crossing guard raised the barrier beams and turned off the light and sound alarms for the passage of vehicles through the level- crossing.

The movement of train No 10997 was ensured by the duty traffic manager-first person at Voluyak station and the duty manager of Sofia station central post, western area.

In the course of investigation the following was ascertained:

- In the telephoned telegrams log-book Form II – 76 at Sofia station the duty traffic manager **personally recorded the hour of departure of train No 10997, taken under the indication of the light-scheme board at the station, „Received departure“ (RD) of the semi-automatic block system (SABS),** without exchange of receipt numbers.

- In the telephoned telegrams log-book Form II – 76 at Voluyak station **the duty traffic manager-first person made a record of the telephoned telegram with Sofia station after the accident occurred;**

- From the in-depth inspection, and the performed comparisons and analyses of the records in the log-books of the telephoned telegrams Form II – 76 at the stations of Voluyak and Sofia on 09.10.2014 **was ascertained an incompatibility of the receipt numbers,** which led to the conclusion, that the same were written **infringing the normative acts.**

- In the log-book for telephoned telegrams Form II – 76 **at Voluyak station** with the level-crossing at Obelya halt **was recorded a telephoned telegram** on the departure of train No 10997;

- In the log-book for telephoned telegrams Form II – 76 **at the level-crossing of Obelya halt** with Voluyak station **there was no recorded telephoned telegram** on the departure of train No 10997;

- In the written and oral explanations given by the duty traffic manager - first person at Voluyak station was stated, that he gave information through the station concentrator (a telephone system ensuring the possibility for registering the time of the performed incoming and outgoing calls with the adjacent stations and railway level-crossings) to the duty level-crossing guard at Obelya halt on the departure of train No 10997 and receipt numbers were exchanged. In the protocol for registering of events from the performed calls of the station concentrator at Voluyak station with the respective subscribers within the period **from 01:04:49 p.m. to 02:07:32 p.m., were not registered any requests or callings between Voluyak station and the level-crossing of Obelya halt, which is contradictory to the statements of the duty traffic manager-first person at Voluyak station.**

After a performed review of the inspection sheets made by the Regional Inspectorate "Traffic Safety" (RITS) - Sofia SE NRIC, during inspections and control to the transport safety and prevention against railway accidents conducted on 27.05.2014 and 15.08.2014 there were registered gross violations of the regulations governing the safe reception and dispatch of trains in the Volujak station.

In the inspection sheet No 14/27.05.2014, filled in by a Safety Inspector at RITS-Sofia it is written:

- „1. The station master permitted the shunting to work until R = 9:40 hrs./without a Shift plan prepared and presented by the RU as per Art. 449, par. 2 of the Rules of train operation (RTO).“;

- „4. ...in the office of the duty traffic manager I found the presence of an open exit signal for train No 60206 without an order to Obelya level-crossing as per Art. 327, par.1 of RTO, the first person was writing a telephoned telegram, while the second person was giving an order for the train departure“;

- „5. Within a performed check of the telephoned telegrams in the Log-books II-76 with Obelya level-crossing were found differences in the hours given by the duty manager and those entered by the level-crossing guard for three trains in violation of article 347, paragraph 2 of the RTO.“;

- „7. The duty manager-second persondid not go out to timely meet train No 60201 in infringement of art. 383 of RTO, but he appeared when the train approached the station building“.

In inspection sheet No 08/15.08.2014, prepared by the Section inspector in RITS-Sofia is written:

- „1. Log-book II-76 at Voluyak station with Obelya level-crossing:

There is a written telephoned telegram on 09.08.2014 at 2:03 p.m., but there is missing a written train number. On the same date the telephoned telegrams regarding trains No No 12963, 12961, 50923, 12965 and other trains are recorded two minutes earlier – contrary to art. 347, paragraph 1 of the ROT and IT.

On 13/14.08.2014 the duty shift is not accepted with approval signatures from the managers on duty first and second person.“;

- „2. Log-book II-76 with level-crossings Ivanyane and Bozhurishte:

On 13/14.08.2014 the duty shift is not accepted with approval signatures from the managers on duty first and second person.“;

- „3. Log-book II-76 with Kostinbrod station:

On 04.08.2014 the telephoned telegrams regarding trains No 14141 and No 10214 are with an incomplete text;

- „4. In Log-book II-76 to all the adjacent stations the telephoned telegrams on the freight trains are not written in a complete text. The words „in a composition“ and the series of the locomotives were not written – contrary to art. 142, paragraph 2 of RTO and IT.“;

- „5. Operation order within the specific conditions with Form II-A:

In Order No 23 on ensuring the operation under TUS-02 with „Key sceptre“ up to kilometre with turning back to the station, it is not written from which track will depart TUS-02 – contrary to art. 180, paragraph 1, p. 3 from the RTO and IT“;

- „6. Log-book DP-2

In the hand over note dated 05.08.2014 there is not given the work load of interstations with Sofia station – in violation with art. 97, paragraph 2 of the ROT and IT.“;

- „7. Signalling equipment Book – VII-51

In part 6 dated 12.08.2014 a record for placing of a temporary seal to ESC button was made, but the train dispatcher and the panel dispatcher were not informed – infringing art. 470, paragraph 1, p. 2 and par. 3 of the TOR.“.

The secured level-crossing at Obelya halt on km 5+375 takes a small part of the cars flow to Obelya village. In order to ensure the growing traffic and to increase the safety of road and rail transport, in 2007 was built and put into operation a road underpass under the railway line at "Pancho Vladigerov" bld. on km 4 + 760 connecting the two residential areas at a distance of 615 meters from the level-crossing. After putting into operation of the underpass of Obelya halt the level-crossing had to be closed. For this reason it was not equipped with an automatic barrier and remained serviced with a level-crossing guard with electric barriers as a temporary facility, according to Ordinance No 4 / 03.27.1997 on the railway crossings.

12. Causes of the accident.

As a result of the on-the-spot inspection, getting acquainted with the report and the attached Protocols and additional documents from the task force, the results of checks carried out, other technical documents and the analysis of the causes, the Commission of inquiry established that in ensuring the movement of train No 10997 from Voluyak to Sofia station, the operating personnel of SE NRIC (traffic managers on duty) at stations Voluyak and Sofia had violated the basic requirements of the normative acts governing the safety of movement for acceptance and dispatch of trains at the two stations as follows:

1. The traffic manager on duty-first person at Voluyak station infringed art. 99 (1), (2), (3) and (4), art. 101, art. 142 (1) and art. 347 (1) from the "Rules of train operation and shunting activity in the rail transport" (RTSA).

„Art. 99. (1) The train operation is ensured through an exchange of specific forms and telephoned telegrams orally or obligatorily recorded in the Log-book for the specific interstation“.

„(2) The train telephoned telegrams are recorded in the Log-book for the specific interstation with a pen. It is allowed the use of a stamp. Preliminarily inscription of texts of the train telephoned telegrams is allowed for not more than a train in a direction“.

„(3) The telephoned telegrams are written under the order of their reception and as per the lines of the Log-book legibly, without corrections and rubbing. It is not allowed the receipt numbers within the exchange of the telephoned telegrams to be given serial from one work place within the scale from 1 to 99. The outgoing and incoming reference numbers for one telephoned telegram are different“.

„(4) The incorrectly written telephoned telegram is struck out in a diagonal and against it is made an authorization with the text "INVALID SIGNATURE".“.

„Art. 101. Within ensuring the train operation the traffic manager on duty gives the telephoned telegrams in a comprehensive way, understandable, without any abbreviations and modifications. The telephoned telegrams are recorded readably in the Log-book according to the separate chapters, they are repeated completely by the recipient, and the recipient confirms it by the word "RIGHT".

**„Art. 142. (1) After the train leaves the station the duty traffic manager gives the departure with the following telephoned telegram:
"FROM STATION TO STATION . . . HOUR . . . MIN . . . TRAIN . . . DEPARTED ON HOUR . . . MIN .. No SIGNATURE“.**

The duty traffic manager at the station of acceptance after receiving the telephoned telegram gives a number“.

„Art. 347. (1) The level-crossing guards at level-crossings secured, situated in the interstation, connected by a special telephone with the neighbouring stations, are being informed

by the traffic manager on duty in the station, which send the train, at least 3 min. before the departure of the train with the following telephoned telegram:

"FROM STATION TO LEVEL-CROSSING HOUR MIN
TRAIN DEPARTS FROM STATION ON HOUR MIN №
SIGNATURE"

2. The traffic manager on duty, Sofia station-central post, western region violated art. 142 (1) of the RTOSA.

3. The station master of Voluyak station violated art. 495 of „Railway infrastructure technical operation rules“ (TOR) of NRIC.

„Art. 495. When at the station during the duty shift there are more than one traffic manager on duty, the traffic managers work with the devices according to a schedule, prepared by the station master.“

13. Recommendations and proposals for activities to prevent other incidents of a similar nature.

In order to prevent the occurrence of similar accidents in future and with reference to the requirements of art. 94, par. 1 of No 59 dated 5.12.2006 on the management of railway safety of the Minister of Transport, Information Technology and Communications, the Railway Administration Executive Agency shall implement the following safety recommendation.

In order to prevent other incidents of a similar nature in the future and in conjunction with the requirements of art. 94, paragraph 1 of Ordinance No. 59 from 5.12.2006 on the management of safety in rail transport, the Executive Agency 'Railway Administration' to put into execution the following safety recommendation:

1. The Director General of the State Enterprise National Railway Infrastructure Company shall initiate a procedure on the closure of a level-crossing, situated on km 5+375 at Obelya halt between Sofia-Voluyak stations in accordance with the requirements of Ordinance No 4 from 27.03.1997 on the railway level-crossings not later than 30.12.2014.

With reference to the requirements of art. 94, par. 3 of Ordinance No 59 dated 5.12.2006 on the management of safety in rail transport the Railway Administration Executive Agency and the SE NRIC shall notify in writing the AMRAIU Directorate at MTITC not later than 30.12.2014 on the appropriate actions undertaken for the implementation of the safety recommendation.

Chairman:

..... (Boycho Skrobanski)
State Expert at AMRAIUD, at MTITC

Members:

1. (Boyko Stoilov)
Chief Inspector at AMRAIUD, MTITC

2. (Dimitar Iotov)
Inspector at AMRAIUD, MTITC

3. (George Maloselski)
Independent external expert ST