ROMANIAN RAILWAY AUTHORITY
- RRA -
ROMANIAN RAILWAY INVESTIGATING BODY
- RRIB -

ANNUAL REPORT

Resumee

A. CONTENT

B. Introduction

1. General information
2. Overview on the last twelve months (trends and themes on the railway events/incidents that stands at the activity basis)
3. The accidents investigation
4. Safety Directive – the implementation level, the implementation national framework, the achievement of the voluntary aspects

C. Organization

a. General overview
b. Organization chart

D. Investigating process

a. The basis of the investigation independence
b. Companies involved in the investigating process
c. Investigating process

E. Investigating activities

~~a.~~ Overview on the finalised investigations, the trends identification ~~Statistics concerning the~~
b. Investigating activities started / ended
- according to the safety directive
- according to the national legislation
- voluntary – other criteria.

F. Optional content

1. Resumees of the final investigations of the year
2. Comments on the investigations
3. Studies, researches began/ completed

G. Recommendations

1. Short review and presentation of the ecommendations
2. Presentation of all recommendations
3. Number of recommendations for each category from:
   - accepted (implemented)
   - rejected (were not implemented and justification)
   - now being implemented (will be implemented or transmitted by the Romanian Railway Safety Authority or transmitted to other bodies)
4. ASFR answers as requirements of the safety directive

B. INTRODUCTION

1. Report introduction

The objectives of the annual report consist of :

- Presentation of the Romanian Railway Investigating Body – RRIB on 2007;
- The implementation of the safety Directive;
- General presentation of the Romanian Railway Investigating Body – RRIB and the relation with other national authorities;

2. General overview on the last twelve months (trends and themes on the railway events/incidents that stands at the activity basis)

2.1. During 2007 no serious railway events were registered .

2.2. In 2007, 65 trains collisions were registered but all the collisions were with obstacles within the gauge (branches and trees falled down on the railway structure clearance gauge, animals left unattended that entered on the railway structure clearance gauge, road vehicles parked on the railway structure clearance gauge, etc.)

As result of the trains collisions, including trains collisions with obstacles within the gauge (animals left unattended or road vehicles), the railway personnel is informing the authorities of the Police of the Railway Transport on this facts and together with other state institutions are working on the identification of the guilty persons in order to recover the value of the railway vehicles and infrastructure damaged.

2.3. In **2007**, 20 trains derailments were registered, the level being aproximately constant in comparison to year 2006.

Current No.	Occurance date	Occurance place	Short description	Cause
1.	January 9,2007	CFR Simeria Triaj railway station	At the exit from the railway station of the freight train no. 23.823, took place the derailment of all axles and the tilting of the wagon no. 81536652936-0 (the 5th wagon of the signal), derailment of all axles of the wagons no. 81536653096-2 and 81536654439-4 (the 4th and 3rd of the signal) and derailment of an axle of the wagon no. 81536654750-3 (2nd from the signal).	The breaking of the axle 1-2 (attack axle), first in the way of running, of the first bogie of the wagon no. 82536652936-0 (the 5th of the signal), fact that has caused its derailment. This led to the derailment of the next three wagons of the train composition in the way of running.

Current No.	Occurance date	Occurance place	Short description	Cause
2.	January 18,2007	CFR Comarnic railway station	At the entrance to CFR Comarnic railway station of the freight train no.60351 took place the derailment of both bogies of the wagon no. 845354870659 (the 11th coach of the signal) loaded with old iron (pipes).	Ununiformly arrangement of the cargo inside the wagon, non-observing the instructional provisions.
3.	February 22, 2007	CFR Dej railway station	When parking the freight train no. 42612 at line no.4 to CFR Dej railway station in the area of the switch no.47 A took place the derailment of four wagons of the train composition (wagon no.10,11,12 and 13 of the locomotive loaded with vinyl chloride).	The curve non-negociation of the wagon no.57653776 because of the centre casting blocking , the lack of the play to the friction stones in line and the ununiform load on the wheels of the attack axle resulting its unloading and escalating the external line.
4.	March 19,2007	CFR Dej Triaj railway station – Reteag halt	The derailment of the second bogie of the wagon no.315354933816 (the 9-th wagon of the locomotive) of the freight train composition no.45654, that is running to the line II between CFR Dej Triaj railway station and Reteag halt.	The loss of the ability to guide the line, due to overrun tolerances allowed when operating at the line, which added an additional vertical displacement of 6.5 mm due to the lack of the rubber plate beneath the base of the rail.
5.	April 5, 2007	Rastoci halt	When the freight train no.42661 entered on the deflecting section no.2 the derailment of both bogies of the wagon no.315354821342 (the 15-th of the train composition) took place.	The giving up of the anchorage elements of the load from the wagon no.315354821342 due to the unappropriate fastening.

Current No.	Occurance date	Occurance place	Short description	Cause
6.	June the first, 2007	CFR Mintia railway station- Branisca halt	The derailment of the last six wagons (three wagons overturned, two wagons derailed and inclined and one wagon derailed) of the freight train composition no.40661-2 on the running track no.II.	The non-observance by the charger of the loading conditions and assurance of the freight into the wagon no. 31830855358-1 , fact that led to the transversal displacement of the load followed by the climbing to the rail head of the curve external line by the wheel of the attack axle of the first bogie in the way of running.
7.	June 10,2007	ROMCIM Medgidia railway station	When the freight train no. 70783 entered into the ROMCIM Medgidia railway station, took place the derailment of a bogie of the wagon no. 895369500825 (the 21-th from the locomotive).	Overlapping deficiencies on how to load / disposition of the cargo on board and the technical parameters of the line.
8.	June 25, 2007	CFR Simeria railway station	At the exit of the freight train no. 46881-2 from CFR Simeria railway station to the area of the switch no.93 the derailment of the last bogie of the wagon no.31792780009-2 took place (the last wagon of the train composition).	The noncorresponding assurance of the load followed by its displacement during transport
9.	June 28,2007	Siutghiol – Năvodari	The derailment of all axles of the wagon no. 315354931968 (the 19-th of the train composition loaded with coke), of the freight train composition no.83822.	Oversizing the rail under load, due to inadequate maintenance.

Current No.	Occurance date	Occurance place	Short description	Cause
10.	June 29,2007	CFR Dej Calatori railway station	The derailment of the wagons no.57654428 (of a bogie), no. 57504243 (of both bogies), no.57506214 (of both bogies) and no.10804996(of a bogie) (wagons no. 7, 8, 9 and 10 from the locomotive - loaded with vinyl chloride) of the freight train composition no.20195/6.	-The loss of the line guidance, caused by the inadequate condition of the sleepers and of the rail fastening to the supporting plate; - The dimensional weakness of the wagon wheels due to the width under the instructional limits allowed for the monoblock wheels of the wagons; - The loads transfer on the wagon wheels outside the safety limits, caused by the plays of the guides under the instructional limits allowed and the malfunction of the centre casting.
11.	July 11, 2007	CFR Jilava railway station	At the exit of the freight train no.86103 of the line no.6 from the railway station took place the derailment of the second bogie in the running way of the wagon no.317928910122 (the fifth wagon from the locomotive), loaded with melamined pale.	The non-corresponding assurance of the load followed by the transversal displacement during the transport.
12.	July 17,2007	CFR Oradea railway station	When the freight train no.35517 entered into the railway station in the area of the switch no.51, took place the derailment of both bogies of the wagon no. 315666501871 (wagon no.31 from the locomotive).	Ununiform load on the wheels of the first boghie as result of unloading the freight of 14100 kilogrammes that stood into the front left section.
13.	September 2, 2007	CFR Ronat Triaj railway station	When the freight train no.91322 entered into the railway station took place the derailment of a bogie of the wagon no.335378130397 (the second from the locomotive) over the point switch no.153.	The nonlifting of the drag shoe after finishing the sorting and shunting operations and attaching the hauling locomotive to the train.
14.	September 6, 2007	Jilava - Berceni	The derailment of both bogies of the wagon no.31792780014-2 (loaded with melamined pale, the fourth of the signal) of the freight train composition no.86103.	The non-corresponding assurance of the load followed by the transversal displacement during the transport.

Current No.	Occurance date	Occurance place	Short description	Cause
15.	September 18,2007	Aiud halt	When the freight train no. 60440 entered on the direct line no.3 into Aiud halt , the derailment of a bogie of the wagon no.845366571717 (the 13-th wagon of the signal) loaded with granulated gypsum.	Non-instructional loading of the wagon.
16.	October 23,2007	Sanislau Halt	When the freight train no. 42690 entered into Sanislau Halt , the derailment of five wagons of the train composition took place (wagons no.8, 12,16, 17 and 18).	The curve non-negotiation of the boghie no.2 of the wagon no.33537816101-2 as result of its blocking because of the bushing guide breaking from the inferior centre casting.
17.	October 27,2007	CFR Zalau Nord railway station	When the passenger train no. 4366 entered into the railway station , the derailment of both axles of the diesel multiple unit type LVT no.110 and of its trailer type LVS , no.510 took place.	The falling of the supporting bolt of the axle attack of LVT 110 fact that leads to its friction within the rail components taking to the derailment of the driving axle and then of the axle no.2 and LVS 510.
18.	November the first,2007	CFR Constanta Marfuri railway station	When parking the freight train no.80081 at line no.4 and passing over the common crossing of the switch no.15 the derailment of both axles of the wagon no.315335400976 (the first after the locomotive) took place.	Overwidening the rail under load, due to non-coressponding sleepers.
19.	December 13,2007	CF Comarnic railway station	The derailment when entering into the railway station of the locomotive EA 250 that was hauling the passenger train no.1641 of the first bogie in the way of running to the area of the switch no.TDJ 7/11, of the line 1/11.	The breaking of a piece from the common crossing check rail of TDJ 7/11.
20.	December 15,2007	CFR Milova railway station – Conop halt	The derailment of an axle of the wagon no.88536656718-2 (the 9-th of the locomotive), of the freight train composition no.50366.	The modification of the wagon axle track gauge as result of the axial displacement on the rim of the wheel tyre no.2.

This chart was taken from the annual report of the Romanian Railway Safety Authority on 2007. The causes are those established with the occasion of investigating the railway events by

the investigating commissions in accordance with Instructions 003/2000 on preventing and investigating the railway events and incidents.

From the total of twenty trains derailments, the Romanian Railway Investigating Body decided to start four investigations on the basis of the Directive 2004/49/EC on the railway safety that was transposed to the Romanian legislation by the Law no.55/2006 on the railway safety.

The decision on the investigation of the fourth trains derailments was made taking into consideration the railway event gravity, the impact on the railway safety and the fact that this have been a part of a series of relevant railway events as concerns the system.

2.4. In 2007, were registered 189 of railway events at level crossings including those railway events where pedestrians were involved at level crossings that had as consequence :

- a total of 94 of persons serious injured;
- a total of 65 persons deceased .

Taking into consideration that all railway events at level crossings didn't took place as result of the railway, the Romanian Railway Investigating Body didn't started any investigation on this matter.

2.5. In 2007 were registered 15 fires on the rolling stock with no victims or injured persons.
2.6. In 2007 were registered other 34 railway events.

3. The philosophy of accidents investigation

At this time in Romania two different activities on the railway events and incidents are in force:

3.1 the railway accidents and incidents inquiry;
3.2 the railway accidents and incidents investigation;

3.1. The railway accidents and incidents inquiry

In Romania all the railway accidents and events are inquired according to the Instructions 003/2000 concerning the prevention and the investigation of the railway accidents and incidents.

According to the provisions of the chapter II, art. 9 from the Instructions 003/2000, the inquiry of the railway accidents and incidents consists of the activities for the establishing of the circumstances of their occurrence, reasons, infringements, guilty persons and the necessary prevention measures.

According to the provisions of the chapter XI, art. 46 from the Instructions 003/200, the railway accidents and events inquiry is done by the Commissions stipulated in Annex 1. The inquiry Commission is independent from the Romanian Railway Investigating Body.

According to the provisions of the chapter XI, art. 61(1) from the Instructions 003/2000 the inquiries will be ended with an inquiry report according to the model in the annex 4.

According to the provisions of the chapter XI, art. 63 from the Instructions 003/2000, the inquiry file has to contain the documents stipulated in annex 5.

According to the provisions of the chapter XI, art. 62(1) from the Instructions 003/2000, the railway accidents and incidents inquiry will be ended within 5 weekdays at the most, starting from its occurrence date. The exceeding of this deadline will be done observing the provisions of the chapter XI, art. 62(2) and/or art. 65

According to the provisions of the chapter XI, art. 64 from the Instructions 003/2000, the copies of the inquiry files are sent by the Commission president, to the companies managers involved in the occurrence of the railway accidents and incidents, in order to implement the established measures.

According to the provisions of the chapter XI, art. 72 from the Instructions 003/2000:

- paragraph (1): the railway accidents inquiry files are obligatory sent, by the Railway State Inspectorate of the Romanian Railway Authority – AFER, to the prosecutor's offices where occurred the railway events
- paragraph (2): the railway events inquiry files stipulated at the art. 14, groups from A1 to A3, will be obligatory sent by the company manager, who has personnel guilty for the events occurrence, to the prosecutor's offices where these railway events occurred.
- paragraph (3): the railway events inquiry files can be sent to the prosecutor's offices where the railway events occurred, if necessary, by the company manager who has personnel involved in their occurrence.
- paragraph (4): the measures stipulated at the paragraphs (1), (2) and (3) will be adopted independently from the disciplinary penalties

According to the provisions of the art. 3, paragraph (2), point n from the annex 1 (The Organizing and functioning Regulations of the Romanian Railway Safety Authority – ASFR) of the HG 1561/2006 for the changing and amending of the HG no. 626/1998 concerning the organizing and functioning of the Romanian Railway Authority – AFER, the Romanian Railway Safety Authority – ASFR inquires the railway accidents and ends the inquiry of the other railway events in case of conflict of opinions between the involved parties, inclusively in the subway activity.

Also according to the provisions of the art. 3, paragraph (2), point o from the same annex the Romanian Railway Safety Authority notify the Romanian Railway Investigating Body about the railway events occurrence.

3.2. The railway incidents and accidents investigation

The railway incidents and accidents investigation is carried out according to the Law no. 55/2006 concerning the railway safety and to the HG no. 1561/2006 concerning the changing and amending of the HG no. 626/1998 concerning the organizing and the functioning of the Romanian Railway Authority – AFER that implement in the Romanian legislation the Directive no. 49/2004 concerning the railway safety.

According to the provisions of the chapter I, art. 3, point p from the Law 55/2006 concerning the railway safety, the investigation is a process carried out in order to prevent the railway incidents and accidents, that includes to collect and analyse the information, to establish the conditions, inclusively to establish the circumstances of their occurrence and, if necessary, to establish some safety recommendations.

According to the provisions of the chapter V, art. 19 from the Law 55/2006 concerning the railway safety, the Romanian Railway Investigating Body carries out an investigation of the serious railway accidents, its objective being to improve the railway safety and to prevent the accidents.

The Romanian Railway Investigating Body can investigate, in addition to the serious accidents, those accidents and incidents that in slight different circumstances can lead to serious accidents, inclusively technical problems of the structural subsystems or of the European conventional or high speed systems interoperability constituents. The Romanian Railway Investigating Body decides, in accordance with the situation, if carries out an investigation of a such accident or incident, taking into account in its decision the following aspects:

a) how serious is the accident or the incident;
b) if it belongs to a series of relevant accidents or incidents for the entire system;
c) its impact on the communitary safety;
d) applications of the infrastructure managers, of the undertakings, of the Romanian Railway Safety Authority or of the member states of the European Union.

The investigation does not aim to establish the guilt or the responsibility.

According to the provisions of the chapter V, art. 20 of the Law no. 55/2006 concerning the railway safety, the status of the investigation is the following:

1) The investigation is an administrative act from the juridical viewpoint, giving to the main investigators the permission to fulfill their tasks efficiently and in the shortest time possible.
2) According to the legislation in force and, if necessary, together with the responsible authorities for the juridical investigation, one gives to the investigators, as soon as possible, the following:
    a) their access to the accident or incident place, as well as to the rolling stock involved, to the respective infrastructure and to the control devices of the traffic and to the signaling devices;
    b) the right to draw up immediately a list of proves and to remove, under control, the vehicles, the devices or the infrastructure components in order to examine or to analyze;
    c) the access to/and the use of the data contains of the register devices on board and of the register equipments of the verbal messages and of the register of the traffic control and signaling system;
    d) the access to the examination result of the victims bodies;
    e) the access to the examination of the train staff and of the other railway staff involved in the accident or incident;
    f) the possibility to inquire the involved railway staff and the other witnesses;
    g) the access to any relevant information or evidence detained by the infrastructure manager, the undertaking or the Romanian Railway Safety Authority.
3) The investigation is carried out independently from any juridical inquiry.
4) In the investigation process the Romanian Railway Investigating Body can, if necessary, to ask the support of the specialists from connected areas.

4. The safety Directive – the stage of implementing, the national basis of implementation, the performance of the voluntary elements

The Directive 2004/49/EC on the railway safety was transposed to the national legislation by the Law no.55/2006 on the railway safety. Through this normative document were set up four independent bodies within the Romanian Railway Authority , having permanent activity:

- Romanian Railway Safety Authority;
- Romanian Railway Notified Body;
- Romanian Railway Investigating Body;
- Romanian Railway Licensing Body;

The organizing and functioning of the Romanian Railway Authority – AFER and of the fourth independent bodies with permanent activity were established by hte Government Decision no.1561/2006 .

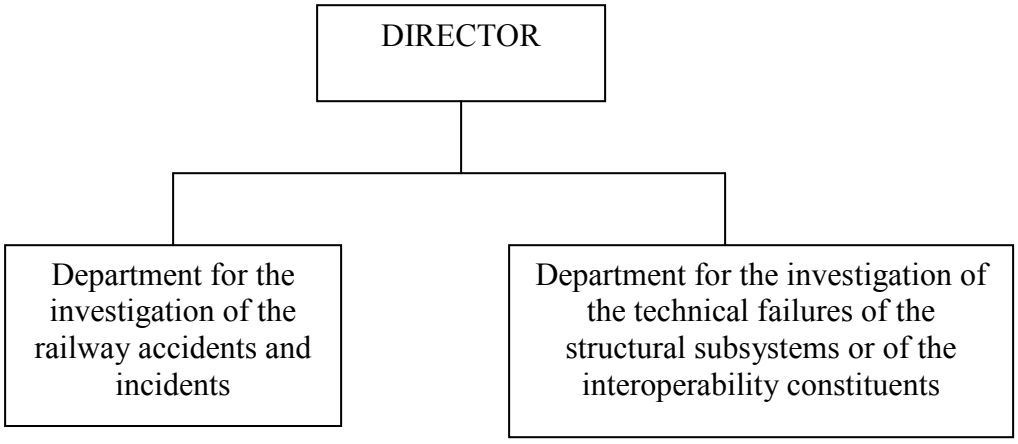
C. ORGANIZATION

1. General presentation

In accordance with the provisions of the Law no.55/2006 on the railway safety and the Government Decision no.1561/2006 for modifying and completing the Government Decision no.626/1998 on the functioning and organizing of the Romanian Railway Authority- AFER , the Romanian Railway Investigating Body is an independent body within the Romanian Railway Authority- AFER, designed to perform the following activities:

- Investigates the serious railway events;
- Investigates other railway events and incidents which in slightly different circumstances could lead to serious railway events;
- investigates technical defects of the structural subsystems or of the interoperability constituents of high speed or conventional European railway systems;
- can ask or offer assistance to similar investigating bodies from other Member States of the European Union or of the European Railway Agency in order to offer competences or to perform technical inspections, analysis or assessments;
- to draw up an annual report concerning its activities carried out in the previous year, published in the AFER Journal and on its site and sends it to the European Railway Agency until the 30th of September the later; also, it publishes final reports of the carried out investigations in the AFER Journal and on its site and sends them to the European Railway Agency;
- other specific duties of its field of activity, entrusted to it by juridical papers .

In 2007, RRIB had the following structure :



1. The Department for the investigation of the railway events and incidents was composed of:

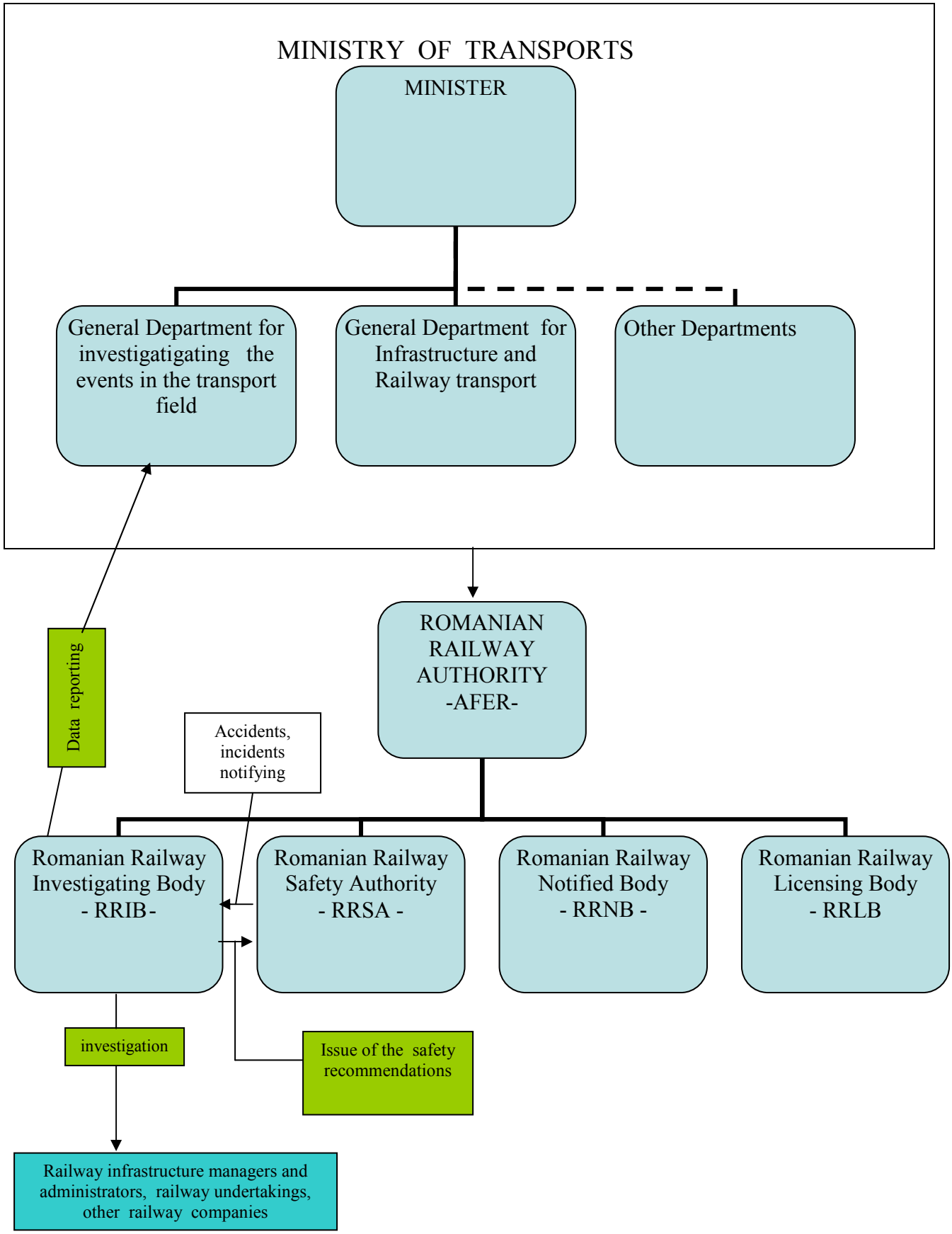
   - 1 chief of department;
   - 1 investigator located in Bucharest;
   - 1 investigator located in Iaşi;
   - 1 investigator located in Constanța.

2. The Department for the investigation of the technical problems of the structural subsystems and of the interoperability constituents was composed of:
   - 1 chief of department;
   - 3 investigators located in Bucharest.

The RRIB management is ensured by the Director Committee whose president is the RRIB Director . The RRIB Director is helped in ensuring the operative management by the two heads of the department

2. The organizational chart

In 2007 the RRIB organization chart in the relation with other institutions involved is the following:


MINISTRY OF TRANSPORTS
MINISTER
General Department for investigatigating the events in the transport field
General Department for Infrastructure and Railway transport
Other Departments
Data reporting
ROMANIAN RAILWAY AUTHORITY -AFER-
Accidents, incidents notifying
Romanian Railway Investigating Body - RRIB-
Romanian Railway Safety Authority - RRSA -
Romanian Railway Notified Body - RRNB -
Romanian Railway Licensing Body - RRLB
investigation
Issue of the safety recommendations
Railway infrastructure managers and administrators, railway undertakings, other railway companies

D. INVESTIGATING PROCESS

1. Independent basis of the investigation

According to the provisions of the chapter V, art. 21, paragraph 1 of the Law 55/2006 concerning the railway safety, the Romanian Railway Investigating Body is independent in its organizing, juridical structure and decisions taking of any railway infrastructure manager, railway undertaking, tariff body, allocation and notifyed body , as well as of any part whose interests could conflict with the tasks entrusted to the Romania Railway Investigating Body. The Romanian Railway Investigating Body is independent, from the functional viewpoint, of the Romanian Railway Safety Authority and of any regulating authority of the railway system.

2. Institutions involved in the railway investigations

According to the provisions of the chapter V, art. 21 of the Law no. 55/2006 concerning the railway safety, the Romanian Railway Investigating Body fulfils its duties independently of the legal persons stipulated at the paragraph 1 and detains the necessary resources in this regard.The investigators are completely independent in fulfilling their investigation duties.

The ensurance of human , material and financial resources of the Romanian Railway Investigating Body is made by the Romanian Railway Authority- AFER.

3. The investigation process

The investigation process is carried out more openely, so that the parts be able to be listened and to have access to the results. The railway infrastructure manager and the railway undertakings involved, the Romanian Railway Safety Authority, the victims and their relatives, the owners of the deteriorated goods, the manufactures, the emergency services involved and the representatives of the personel and the users are regularly informed on the investigation and its course , giving at their request, the posibilty to present their opinions and their points of view on the investigation and to comment upon the information from the reporting projects .

The Romanian Railway Investigating Body ends its examinations on the accident place in the shortest time possible, in order to allow to the infrastructure manager to repair it and to open it as soon as possible.

The Romanian Railway Investigating Body can arrive in time to the place of the railway event/incident if occured on the area of the District Branches of Bucharest, Iasi and Constanta.

In case of the District Branches of Bucharest, Iasi and Constanta, the investigators of the Romanian Railway Investigating Body are moving to the place of the railway event together with the inspectors from the Railway Teritorial Inspectorates of Safety using the cars from the endowment of the Railway Teritorial Inspectorates of Safety .

If the railway event/incident occured on the area of the District Branches of Cluj, Timişoara, Braşov, Craiova and Galaţi reach to the place of the railway event in time the railway infrastructure manager, the railway undertakings involved and the inspectors of the Railway Teritorial Inspectorates of Safety that have attributions in inquiring or surveillance after case.

The investigators of the Romanian Railway Investigating Body take over in this case the informations from the Railway Teritorial Inspectorates of Safety , the railway infrastructure manager or the railway undertakings involved, the restoration of the railway infrastructure being in this cases usually started , as the investigators of the Romanian Railway Investigating Body can arrive to the place of the railway event after 8-12 hours in this case.

In this case the investigating file is based on the inquiring file.

E. INVESTIGATIONS

4.1. General overview on the completed investigations, trends identification

Taking into consideration that this was the first year when investigations were started as result of setting up the Romanian Railway Investigating Body and also that no investigation was completed this year , the trends can be identified in the following years.

4.2. Investigații completed/ started

- **According to the safety directive**
- **On the basis of the legal national legislation**

In 2007 four investigations were started on the basis of the Directive 2004/49/EC on the railway safety that was transposed to the Romanian legislation through the Law no.55/2006 on the railway safety as follows:

1. The railway event of February 22, 2007 on the area of the Railway District Branch Galati, in Cricov halt, by the derailment of the last two wagons of the freight train composition no.60373, belonging to the Railway Transport Company Bucharest, railway event ranged at article 3, item 1 of the Law no.55/2006 on the railway safety (corresponding to the article 19& 2 of the safety directive).

   The intermediary report for this railway event was completed on April 18, 2007.
   On this occasion were set up the following objectives:

   a. Performing a technical and scientific expertise by which:
      - To determin the stages through which passes a wheel with loose tyre to tearing off the tyre of the wheel rim;
      - To estimate the period (as time or distance – eventually in correlation with speed and braking conditions) in which a tyre is moving on the wheel rim;
   - To establish any elements that have favored the loss of the tightening and displacement of the tyre on the rim running with the automatic brake in action;

   From discussions held with specialists in the fields of rolling stock and metallurgy has concluded that, because many factors are involved in the process of tightening loss and displacement of the tyre on the rim, its study has a high complexity and the duration of this expertise is very high.

   Taking into consideration these facts, expertise became very expensive compared with the results and what information that could have beeen obtained from it.

Since the sources of funding of RRIB could not cover the estimated costs of such expertise and taking into account the above, the RRIB management decided that this expertise should not be done.

b. Establishing the route followed by the axle no.3407007 previously to its mounting at the wagon no. 88536657717-3 in order to determin the date of mounting the tyre no. 6948/1975.
The results were included in the final investigating report.

c. The questionning of the railway personnel that performed the technical inspections to trains in which circulated the wagon no. 88536657717-3 and also of the training ,guidance and control personnel belonging to SC SEFER SA Brazi and SC CTF SA Ploieşti in order to establish:
   - the implementation of the instructions, rules and operating procedures specific to activities of technical maintenance and inspection of the wagons in operation;
   - The way of examination and internal auditing of the activities of technical inspection and maintenance of the wagons in operation.

   The results were included in the final report.

The final investigating report was completed on January 11, 2008.

Direct causes

- The modification of the mounted axle track gauge as result of the transversal displacement of the wheel tyre no.5 of the wagon no. 88536657717-3 (the last but one of the train) fact that led to the derailment of that axle on the switch no.9 of Cricov halt.

Underlying causes:

- the loosening of the wheel tyre no. 5 of the wagon no. 88536657717-3 (the last but one wagon) having as result his rotation on the wheel rim and the grinding of the rails;
- when the technical inspections were performed, they didn't comply with the regulations in force, so that the railway staff didn't repaired the marks on the outside of the wheel with tyre, being placed in four points at 90 degrees one from another, respectively they didn't removed the wagon from running , taking into consideration that Ploiesti railway station was not equiped as appropriate.

Factors:

- the reduction in time of the clamping forces between the tyre and the wheel rim as result of crushing the irregularities on those two contact areas due to the heat and mechanical impact that appeared during the axle operating (the axle is 31 years old);
- the heat impacts exercised on the wheel rim as result of the brakings during the wagon operating.

2. The railway event of February 22, 2007 on the area of the Railway District Branch Cluj, to Dej Triaj railway station, by the derailment of eight wagons of the freight train no.42612, belonging to SNTFM „CFR Marfă" SA , railway event ranged at article 3, item l of the Law no.55/2006 on the railway safety (corresponding to the article 19& 2 of the safety directive).

   The intermediary report for this railway event was completed on April 12, 2007.
   On this occasion were set up the following objectives:

   a. Establishing the impact of non-oiling the centre casting on the railway event by measuring the rotation moment to a bogie type Diamond on roller bearings that is used in order to move the freight wagons of large gauge (1520 milimetres) on normal gauge (1435 milimetres) in the two alternatives meaning with oiled centre casting and with non-oiled centre casting.

   ICPV SA Arad has communicated to us by the document no.209 of March 29, 2007 that it has the possibility to perform measures of the rotation moment in case of an empty wagon and of the loaded wagon by mentioning the fact that the UIC leaflet 510-1 is precising the value of the rotation moment for a standard UIC wagon of almost 20 tons; for a loaded UIC wagon is not being precised the value of the rotation moment.
   Also for widening the investigation it was proposed a test for determining the total torsional rigidity in order to establish the influence of the frictions on the loads on the wheels.
   Since the sources of funding of RRIB were not identified the RRIB director Mr. Laurenţiu Dumitru realized a theoretical study concerning the behaviour from the safety point of view against derailment depending on the centre casting revolving couple of the railway vehicles (oiled centre casting , respectively non-oiled).

   The conclusion of this theoretical study is that between the case of the oiled centre casting and in the case of the non-oiled centre casting, the driving force P1 increase by 6.03% and the coefficient of safety against derailment (the Y / Q) increases with a value of 0.02 which allows to believe that the centre casting non-oiling represents a factor and not a direct cause of the wagon derailment.

   b. The questionning of the personnel that performed the measures to the point switch no.47 A in order to clarify the occurred discrepancies .
      The results were not included in the final investigating report.

   c. Establishing how the drainage water is ensured, and the ability of enforcement of maintenance work by the sub-unit that is taking care of the lines and points and crossing of Dej Triage Group A railway station.
      The results were not included in the final investigating report.

   The final investigating report was completed on January 11,2008.

The direct causes – the railway event occured by the derailment of the first axle of the wagon no. 57653776. This could occur as a result of overcoming the limit of stability to the derailment by downloading the load of the attack wheel, in conjunction with lowering the contact point between the lip of the tyre and the active lateral area (flank) of the track (to the attack wheel in moving on the curve of the point switch), which led to the escalation of the track on the right side and fall of the wheel on the left side in the path.

We are considering that the cause of the derailment is the cumulation of the undelying causes .

Underlying causes:

- The choking of the broken stone prism of the area where the derailment took place fact that allowed uncontrolled settlementsof the prism of broken stone and the formation of a free space between the bottom chord member of the sleeppers and the prism of the broken stone.
- When the plan for tracks maintenance and points and crossing was approved it was not foreseen the realistic possibilities for the supply of materials and labor providing.
- at the end of 2006 it was not analyzed in a realistic way the method of performing the labour as the situation clearly shows that:
  - it was not ensured the real quantity of new rail parts necessary to replace the defective ones, fact that is confirmed by the works that demonstrates the degradation of some rail parts. By example the sleepers – the work „ modified gauge", where the achievements are well above the requirements to be scheduled according to the Instructions no. 300 or census;
  - works that show the degradation of some rail parts, such as sleepers, are well above the scheduled plan or the requirements to be scheduled according to the Instructions no. 300 - eg the work „ modified gauge";
  - comparing the quantities of works scheduled with the quantities of the performed works is found that in some cases there is no connection between the two groups of data than the final result in terms of km conv;
  - To the chapter replacing special sleepers on points and crossing for 2006 small quantities have been provided than the necessary. A similar situation was found also in the case of the broken stone;
- Consulting the documents of the District no.4 Dej Triaj on establishing the work labour necessary for 2007 it was found that in order to cover the 61,228 km conv scheduled for maintenance only 50% of the personnel is used from the total.
- The benefits for which execution is necessary to use qualified personnel, were performed using unqualified staff, in the personnel structure of the sub-unit being between 53% - 65%, far exceeding the maximum of 5%.
- Analyzing in a realistic way the situation of the working staff of the Section L7 Dej is found that the real number (of staff) of workers needed for maintenance and track repairings (calculated according to the quantities of works reviewed) is 335, higher compared to 290 as results from the calculation performed according to the provisions of Instructions no.300/1972. To this need, at the end of April 2007 the department was having only 90 workers.

- Keeping the non-corresponding sleepers within the points and crossing is not allowed by the Instructions no.314/1989, chapter II, article 15, item 11. The instructional provision show that when overpassing the term of 12 months of maintaining on the track the non-corresponding sleepers , the only safety measure should be closing the traffic on this points and crossing;
- Overpassing the term of instructional replacing of the non-corresponding special sleepers within the points and crossing is one of the causes that led to the situation that an important percentage of the railway events and incidents to be registered on the points and crossing within the Romanian Railway Network;
- The non-oiling of the centre castings contrary to the Romanian and Ukranian regulations that contributed to prevent the corresponding rotation of the boghie being in curve;
- The wide of the tyre from the wheels of the first boghie of the wagon smaller with 3 milimetres than the minimum value of the annex 5, point 2.3 of PPV.

Factors that contributed:

- heavy drainage of water resulting from rainfall;
- pulverulent goods flowing from the wagons;

3. The railway event occured on December 13, 2007 on the area of the Railway District Branch of Bucharest to Comarnic railway station , by the derailment of the first bogie in the way of running of the locomotive EA 505, that was hauling the passenger train no. 1641, railway event ranged at article 3, item l of the Law no.55/2006 on the railway safety (according to the article 19& 2 of the safety directive).

   The accident is being investigated.

4. The railway event occured on December 15, 2007 on the area of the Railway District Branch of Timisoara , the running section Ilia – Radna, between CFR Milova railway station and Conop halt, at the kilometre 586 + 310 by the derailment of an axle (corresponding to the wheels 1-2) of the wagon no. 88536656718-2 (the 9-th of the locomotive), of the freight train composition no.50366 belonging to the railway undertaking SC UNIFERTRANS SA at article 3, item l of the Law no.55/2006 on the railway safety (according to the article 19& 2 of the safety directive).

The investigating report was completed on July 4, 2008.

The direct causes:

- The modification of the wagon axle track gauge as result of the axial displacement on the rim of the wheel tyre no.2 of the wagon no. 88536656718-2 fact that led to the derailment of the respective axle between Milova and Conop railway stations, at the kilometre 586+310.

Underlying causes:

- Loosening the wheel tyre no.2 of the wagon no. 88536656718-2 (the 9-th from the safety) taking to its rotation on the wheel rim and grinding of the fastening ring;

Factors that contributed:

- the reduction in time of the clamping forces between the tyre and the wheel rim as result of crushing the irregularities on those two contact areas due to the heat and mechanical impact that appeared during the axle operating (the axle is 30 years old);
- the heat impacts exercised on the wheel rim as result of the brakings during the wagon operating.
- on the occasion of the technical inspections at composing and arrival it was not observed the specific regulations in force, the railway personnel didn't performed the completion of the rail parts that were missing and didn't notified the wagon situation;

➢ **voluntary – other criteria**

No investigations were started on the basis of other criteria than the Directive2004/49/EC on the railway safety that was transposed to the Romanian legislation through the Law no.55 /2006 on the railway safety.

F. Optional content

1. Resumees of the final investigations of the year
2. Comments on the investigations
3. Studies, researches began/ completed

No investigations were completed during 2007.

G. Recommendations

1. Short review and presentation of the ecommendations
2. Presentation of all recommendations
3. Number of recommendations for each category from:
   - accepted (implemented)
   - rejected (were not implemented and justification)
   - now being implemented (will be implemented or transmitted by the Romanian Railway Safety Authority or transmitted to other bodies)
3. ASFR answers as requirements of the safety directive

No recommendations were transmitted as no investigating file was completed during 2007.