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Draft Regulation on the Train Traffic on Russian Railways (Steam Locomotives' Railways) Open for Public Use (1892)



Press archives

This issue reprints extracts from the preliminary draft of one of the core regulations on railway operations which was the regulation on train traffic. It was compiled more than 130 years ago. Probably, the entire document is less of interest regarding engineering aspects but is of much greater interest as far as jobs are concerned or, in modern terms, human resources. Many aspects are quite relevant regardless the historical gap. We can quote requirement addressed to the employees when they work at the positions that combine two qualifications to possess all the skills necessary for each of them.

Publication keeps intact as much as possible the style, punctuation and lexis of the time

Keywords: transport, history of transport, railways, staff, employees, history of science and engineering.

Preliminary draft regulation on train traffic on Russian railways (steam locomotives' railways) open for public use. Developed by the Commission established by the Department of Railways by Circular Order of April 21, 1892, No. 5190, under the chairmanship of the engineer, D.S.S. M. M. Petrovsky.

Organisation of traffic service CHAPTER I General provisions

8 1

(1) Movement of trains on a railway open for public use is carried out by the direct order of the traffic service under the general direction of the manager of the road, in accordance with this regulation.

- (2) If necessary, due to the special conditions of the road, to establish any deviations from this provision, such may be allowed only with the permission of the Minister of Railways.
- (3) All persons in the traffic service, starting with the head of this service, are subordinate to the road manager.

Note: Under the name of the board of the railroad, in this provision, one should also understand the boards of management of private railways, replacing the boards, and under the name of managers, also the heads of public and directors of private railways.

8 2

(1) The traffic service includes the following persons who are directly related to movement of trains:

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The text in Russian is published in the first part of the issue.
Текст на русском языке публикуется в первой части данного выпуска.

- a) the head of the traffic service and his assistant:
- b) heads of central administrative departments and local departments, auditors and traffic controllers;
 - c) stationmasters and their assistants;
- d) signalmen at permanent station and track signal posts;
 - e) telegraph operators;
 - e) switchmen;
 - g) assemblers of trains and couplers;
- h) chief conductors and conductors of all types.

Note: The locomotive servicing team members, although they do not belong to the traffic service, but in relation to movement of rolling stock, are subordinate at the stations to the head of the stations, or the person in charge of the manoeuvres, and en route – to the chief conductor.

- (2) From among the named positions, the administration of each road establishes the composition of the traffic service, which is approved by the Minister of Railways.
- (3) The procedure for appointing and dismissing employees who are part of the traffic service, as well as the mutual relations of employees, shall be determined for each road, in accordance with the provisions of the law, the regulations of the Minister of Railways and the articles of association of the underlying railway company.
- (4) The position of head of the traffic service, depending on the conditions of the road, may be combined with the position of a road manager or other position on the road, with the permission of the Minister of Railways. For the rest of the positions named in paragraph 1 of this section, with the approval of the road manager, it is allowed to combine temporarily, periodically or permanently several positions in one person, in accordance with local traffic conditions, and in addition for each of the employees, regardless of the duties defined by this provision, other obligations relating to the railway service may be imposed if the manager of the road considers such a combination possible without prejudice to the case.
- 5) An employee who combines several positions must satisfy all the qualities and knowledge established for each of the positions he combines, whether it is a combination of permanent, temporary or periodic nature.

- § 3
- (1) Each person is obliged to temporarily remove from office an employee directly subordinated to him who has proved unreliable or who has found himself incapable of performing the duties assigned to him, and immediately report such removal to his immediate superior for further instruction, taking on his part the necessary measures for the uninterrupted service.
- (2) The employees referred to in § 2 must have such sight and hearing as to be able to clearly distinguish the signals used on the road, and not to have bodily defects that prevent them from performing the duties assigned to them.
- (3) Station and train employees must be of legal age, but the following exceptions are allowed:
- a) those who have completed a course at technical railway schools may be allowed: to occupy the positions of a switchman, coupler, train builder and conductor from the age of 18, if they satisfy the required rules and qualities for employees;
- b) telegraph operators, who are not assigned traffic duties, are allowed to practice with telegraph devices from the age of 16.
- (4) Only persons who have passed the test in full knowledge of their duties are allowed to perform the positions of station masters, their assistants, signalmen, switchmen, train assemblers, couplers, chief conductors and conductors, and the station masters, their assistants and deputies must be appointed from persons who know how to operate the telegraph; train assemblers and chief conductors must be literate; couplers, switchmen and conductors should be elected as far as possible from among the literate.
- (5) Each person holding the position named in § 2 of this provision must be provided with an instruction (manual) approved by the road manager, know the regulations on signals and the instructions of employees subordinate to him and freely explain himself in Russian. Instructions are drawn up in accordance with this regulation and the relevant resolutions and orders of the Minister of Railways, and should, as accurately and concisely as possible, determine the duties of the person to whom they are issued, and the order of subordination.
- (6) Each instruction must be accompanied by the following excerpts from the laws ... in addition, from the general charter of Russian railways, the relevant articles must be included





in the relevant instructions, at the discretion of the road manager.

- (7) Any changes and additions to the instructions resulting from the order of the Minister of Railways, as well as changes in laws and regulations placed in the appendices to the instructions, are communicated by an official order through the line of the road manager.
- (8) Instructions are issued to each employee on receipt, while they are read and explained to the illiterate by their immediate superiors.
- (9) An employee admitted to performance of duties assigned to him cannot excuse himself by ignorance or misunderstanding of the content of the instructions, rules, regulations, etc. given to him.
- (10) Every member of the traffic service must be provided in performance of his official duties with serviceable signal signs assigned to his position, tools and all items necessary for performance of duties entrusted to him. The receiver of the instruments and signals is obliged to verify their suitability and, in case of a malfunction, immediately report this to the authorities.
- (11) Each of the traffic officers named in these rules must be in uniform or with a uniform badge assigned to this position according to an approved, in the prescribed manner, model while on duty.

§ 4

(1) The duties regarding traffic must be entrusted to a sufficient number of employees, so that they can successfully carry out the work assigned to them and, in case of a sudden illness of one of them, his duties can be promptly taken over by another person.

1st option

(2) The number regarding traffic is determined on the basis of the following limit norms for permanent rest service during the day.

2nd option

(2) The number of employees is determined on the basis of the following limits for continuous service and subsequent rest.

For station employees

(3) For the permanent service of station employees, the maximum limit of daily work allowed in winter is 12, and in other seasons is 14 hours a day, on the indispensable condition of providing uninterrupted rest, regardless of day or night, at least 6 hours a day and beyond that uninterrupted one-day rest during each

month twice, and the employee is granted the right to use this rest, with the consent of the road administration, not by months, but by the totality of several months.

1st option

- (4) When, due to traffic conditions or due to particular intensity of work, it is not possible to comply with the above norms for permanent service, then the duty is distributed between two or more persons, depending on the following norms of duty and rest.
- a) Heads of stations, their assistants, signalmen, assemblers, couplers, senior switchmen and switchmen at ordinary switches can be on duty 24 hours a day; signalmen and switchmen at posts of concentrated action no more than 16 hours a day.
- b) Whenever the uninterrupted service of named servants reaches the highest limits of the said norms, the subsequent rest granted to them shall not be less than the number of hours of uninterrupted service preceding.
- c) Duty among employees should be distributed in such a way that during four days the total number of hours of rest provided to employees is equal to the total amount of time worked.

2nd option

- (4) When, due to traffic conditions or due to special intensity of work, it is not possible to observe the above standards for permanent service, then a regular watch is established between two or more persons, and the maximum limit of continuous service of each of them should not exceed:
- a) for the heads of stations, their assistants, signalmen, assemblers, couplers, senior switchmen and switchmen with manual switches 24 hours, for signalmen and switchmen at central apparatus 16 hours.
- b) The shortest rest of employees, immediately following the service, must be at least half of the previous number of hours on duty.
- c) The total result of the rest must be in the amount of at least 48 hours within 4 days.

For conductor crews:

1st option

(1) Conductor crews assigned to escort passenger, cargo-passenger, military and cargo trains carry out continuous service no more than 18 hours a day; uninterrupted rest of crews should not be less than 6 hours during the day, and during the period of time determined by the manager of the road, for the entire line or for the section, the average daily duration of work

per day should not exceed 12 hours in any case, and the longest period assigned road manager should not be allowed more than 6 days.

- (2) When compiling the distribution of duty and rest, one should be guided by the rule of assigning the longest rest in the places of residence of crews, limiting rest in the circulating depot to the extreme limit of necessity.
- (3) In some cases, the duration of the uninterrupted presence of conductor crews on trains may be up to 24 hours, but only with the permission of the Minister of Railways.
- (4) The duration of uninterrupted service of conductor crews of working trains may be increased, with the permission of the road manager, to 24 hours, provided that uninterrupted rest time is granted not less than the number of hours of the previous service.
- (5) The appointment of shifts, as well as the distribution of duty and rest periods for station and train employees, is made by order of the traffic service, within the limits of the above norms and is approved by the road manager.

2nd option

(5) For conductor crews, the maximum limit of continuous service should not exceed 18 hours. Under special conditions of the road, the maximum limit of continuous service is allowed even as long as 24 hours, but only with the special permission of the Minister of Railways. The indicated limit norms can be applied both in relation to one, and in the aggregate of several trips.

Note: The indicated service time limits for conductor crews also include the time required for acceptance and delivery of trains.

- (6) Upon reaching the uninterrupted service of the above-mentioned limits in this §, the conductors must be provided with rest, the smallest limit of which is determined in the place of permanent residence equal to half, and outside it, not less than one third of the previous service. Rest granted prior to the onset of the limit norms, at least for several trips, interrupts the course of the total duration of service only if such rest was not less than the above ratios to the previous service.
- (7) Rest time of 3 hours or more spent outside the place of permanent residence is counted in the total amount of rest indicated below, only under the condition that the teams are provided with a room adapted for rest within the station.

Note: Rest of less than 3 hours is included into the number of hours of service.

- (8) The total amount of hours of rest, both in the points of permanent residence of crews, and outside them, should, in a certain period of time not exceeding 6 days, be equal to the sum of the hours of service, and the rest should be distributed as evenly as possible.
- (9) The distribution of the duty of station employees, as well as the work of conductor crews, is carried out by order of the traffic service with the approval of the road manager.
- (10) When employees are sent in passenger, cargo-passenger or cargo trains to their destination for performance of their official duties, half of the time spent by such employees on the road is considered as rest hours if they are not assigned any duties during the journey.
- (11) In cases of emergency that could not be foreseen in advance (such as force majeure, train delays, etc.), accidental deviations from the above-mentioned norms of continuous service are allowed, but so that the road management takes care of restoring as soon as possible the ratio rest to the duration of the previous service.

§ 5

- (1) The limits of responsibility of each employee are determined by the content of this regulation, the instructions given to him and the orders communicated to him on the road, and the following rules apply:
- a) If the failure to perform, or unsatisfactory performance, of any of the duties resulted from an untimely notification to the executing employee, or as a result of assignment of duties associated with the positions named in § 2 to a person who does not possess the qualities specified in this § , then the responsibility falls on the person who made such omissions.
- b) If it is impossible to fulfil his duty personally, everyone must promptly transfer the execution to the person appointed by the authorities for such a case; in the absence of such a person, everyone must immediately notify the appropriate authorities of the impossibility of fulfilling their duties.

CHAPTER II Distribution of duties between employees

§ 6

(1) Every employee, regardless of performance of the duties directly assigned to him, must, as far as possible, contribute to prevention of any danger that may threaten train traffic. In case of a train, rolling stock, or any other incident on the road, each employee is obliged to immediately take measures





depending on him to provide assistance, and to fence off the scene of the accident with signals.

2) In case of a fire, every employee who notices the latter is obliged to immediately sound an alarm. On such a signal, railway employees are obliged to immediately arrive at the place of fire and, having taken their places, act in accordance with the instructions.

Note: This requirement does not apply to employees who perform responsible duties of receiving and sending trains during a fire.

- (3) Employees of the traffic service are obliged to behave towards the public modestly and politely, but at the same time, with firmness and perseverance, demand implementation of the established rules; they must be helpful within the limits of their official rights. If outsiders do not pay attention to the warnings of employees or show unwillingness to obey their legitimate demands, employees are obliged to contact the gendarmerie police for assistance, and report more important cases to their superiors.
- (4) The agents of the traffic service referred to in § 2 of this provision, in the performance of their official duties, in relation to the public, enjoy the rights of persons in the public service¹.

§ 7

Head of traffic service

- (1) The person who is entrusted with direct management of the traffic service is called the head of the traffic service.
- (2) The duties of the head of the traffic service include:
- a) direct, responsible management and governance of traffic on the road and the personnel of this service;
- b) concern for appropriate development of stations, their signalling and trains, a sufficient number of rolling stock, arrangement of premises and devices necessary for train movement, supplying stations, trains and serving with the necessary signals, tools, instructions, other items and materials, about a sufficient number of employees and their compliance with the requirements of the service;
- c) monitoring the correct and timely movement of trains;
- d) supervising the exact application and enforcement of all rules, regulations, ordinances and orders of the government relating to railways, as well as the rules taught by the road administration;

- e) drawing up schedules and timetables for trains; g) maintaining the established reporting.
- *Note 1:* In urgent cases, the head of the traffic service takes, with his own authority and under his own responsibility, all the measures necessary for the part entrusted to him to ensure safety, correctness and continuity of the traffic;

Note 2: The closest, under the general guidance of the head of traffic, management and governance of the service and monitoring the exact execution by employees of all applicable rules may be assigned to the assistant head of traffic, the head of the central administrative department, the heads of local departments, auditors and traffic controllers.

§ 8

Heads of stations

- (1) To manage the station for reception and departure of trains, a special person is appointed, called the head of the station.
 - (2) The head of the station must:
- a) maintain in full working order to ensure train traffic the facilities located within the station: tracks, switches, signals and rolling stock, eliminate, if possible, noticed malfunctions and, if necessary, require assistance and orders from relevant persons;
- b) take care of the appropriate number for the station: of tracks, switches, structures, signals of rolling stock and personnel, and the supply of station employees with instructions, signals and other items;
- c) monitor exact performance of duties of the service by all train and station employees and distribute duties between the latter, depending on traffic conditions and the existing rules for this;
- d) direct and supervise the production of maneuvers, not allowing any deviations from the existing rules;
- e) make sure that rolling stock placed on the tracks, as well as the arriving trains, do not go beyond the allowed dimensional limits and are firmly secured:
- f) send and receive trains on prior assurance that the path for movement is clear, that the rules for relations with neighbouring stations and the conditions for the proper composition of the train are strictly observed, that the latter is accompanied by a certain number of train employees and equipped with established signals;
- g) manage the supply of assistance to trains and passengers injured en route and at the station, taking possible measures and directing, in appropriate cases, the actions of employees to resume correct and safe traffic on the track or at the station;

¹ To be established by law.

h) maintain the established reporting on movement of trains.

Note: The words «head of the station» should also be understood as their assistants, who assumed a.i. the post of a head of a station.

§ 9

Signallers

- (1) Signal posts between stations, and within them, established for communication on reception and departure of trains, are entrusted to the care of special persons called signalmen.
 - (2) Signallers are obliged to:
- a) keep the post and apparatus in full working order for movement, as often as possible making sure that they are intact, serviceable and in proper operation;
- b) take care of replacement and repair of everything that has deteriorated at the post and devices, as well as cleanliness and timely lighting of signals;
- c) ensure that the post is always free for trains to run:
- d) strictly follow all the rules for signalling at the post and communicating with neighbouring stations when receiving and sending trains;
- e) report immediately to the responsible authorities and neighbouring stations or posts about malfunctions of the post or devices, entailing a violation of the established order of train traffic;
- f) notify neighbouring stations or posts and the responsible authorities of incidents with trains and demand the dispatch of assistance in accordance with the rules in force;
- g) maintain the established reporting on movement of trains.

§ 10

Telegraph operators

- (1) The operation of the telegraph apparatus of the station is entrusted to the telegraph operators.
 - (2) The telegraph operator is obliged to:
- a) observe that the devices and the room telegraph device are in good order, and in case of damage, take possible measures to repair them in a timely manner;
- b) report any damage to the telegraph, without exception, both on the line and at the station, immediately to the station head, mechanic and telegraph supervisor;
- c) transmit train, service telegrams and private correspondence on the basis of existing rules;
 - d) keep regular reports about the telegraph.

§ 11

Switchmen

- (1) Persons who are responsible for maintenance, protection and operation of rail switch crossings are called switchmen.
 - (2) The switchman must:
- a) maintain the post entrusted to him in full serviceability, making sure that the switches are intact, serviceable and proper;
- b) take care of replacement and repair of everything that has deteriorated at the post, of cleanliness and timely lighting of signals;
- c) observe that the post assigned to him and adjacent tracks are free for movement of rolling stock:
- d) keep the switches always in the position that will be determined for this and transfer them: for passage of trains at the direction of the head of the station, and during manoeuvres at the direction of the person in charge of the manoeuvres or according to the requirements stated by the established signals;
- e) be at the switch facing the expected train with the point blade; if there are several such switches at the post, then fix all the rest with devices adopted on the road in the absence or damage of devices, such switches should be fenced off with stop signals; observance of this rule is not necessary for manoeuvres;
- f) report immediately to the responsible authorities about all malfunctions on the track and switch points, notify station employees about the incident with established signals, and fence off the rolling stock or a place that impedes movement with signals.

Note: When switch crossings are centralised, the obligations of persons acting in this way are determined by special rules issued by the Railroad Administration.

§ 12

Train assemblers

- (1) The production of any kind of movement of rolling stock within the station (station manoeuvres) can be entrusted to special persons, called train assemblers.
 - (2) The assembler is obliged to:
- a) make sure of the proper condition and position of the track, switch crossings, structures, rolling stock and signals in the area of the forthcoming work;
- b) supervise and monitor the work of couplers, switchmen and team of a shunting locomotive, as well as any other engine;



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- c) perform manoeuvres within the tracks indicated to him by the head of the station;
- d) compose trains without deviating in any way from the rules in force with regard to signalling, speed, type, number, placement and coupling of rolling stock;
- e) report immediately to the responsible authorities about all noticed malfunctions both in relation to the track, signals and rolling stock, and in relation to employees subordinate to the assembler;

f) monitor proper placement of cars on the tracks and their solid securing.

Note: For coupling and uncoupling of rolling stock, special employees may be appointed, called couplers, who act under the direct supervision of the assembler or the person in charge of the manoeuvres.

§ 13

Chief conductor

- (1) The chief conductor is the head of the train that he accompanies.
 - (2) The chief conductor is obliged to:
- a) make sure, when the train leaves the station, that the train is correctly composed, properly coupled, the rolling stock is loaded correctly, the brakes are working properly, signalling accessories are in the proper number and in good condition, and operation;
- b) see that the train has the prescribed number of train team employees, and that they are properly distributed in the train;
- c) observe the exact performance of the duties of the service of the train and locomotive team, as well as the observance of the established rules by all persons on the train;
- d) monitor the stable and completely safe placement of cargo on open rolling stock;
 - e) engage the brake in certain cases;
- f) govern the stop at the station and the departure of the train from the station in accordance with the rules in force for this;
- g) make sure that the train that arrived at the station is intact and report this to the head of the station:
- h) stop the train in all observed cases that threaten safety and correctness of movement, as well as prevent accidents with persons following in the train or staying on the track;
- i) take appropriate measures to protect the stopped train, demand assistance to the damaged train and provide possible assistance to the injured;
- j) maintain the established reporting on movement of trains.

Conductors

- (1) To service the train, to help the chief conductor, special persons are appointed, called conductors.
 - (2) The conductor is obliged to:
- a) observe the correct loading of rolling stock and the proper traction of the train;
- b) take care of the proper operation of the brake entrusted to him for maintenance; as well as about the proper condition and operation of signal accessories;
- c) give stop signals in all cases that threaten safety of the train and the persons on it and being on the track:
- d) operate the car brake when appropriate and in accordance with existing regulations;
- e) execute immediately all orders of the chief conductor relating to movement of trains;
 - f) guard a train every time it stops.

§ 15

Drivers

- (1) Regardless of the duties for care, maintenance and operation of the locomotive, the driver is obliged to:
- a) while the locomotive is on station tracks, set it in motion only by order of the head of the station, by the signals of the chief conductor or person in charge of the manoeuvres, and when moving along the serviced turnouts, during execution of manoeuvres, upon receipt of a response signal from the switchman, in accordance with the regulation on signals;
- b) after every stop of the train, set it in motion only on the departure signal given by the chief conductor;
- c) before leaving the train, make sure that the train complies with the rules established on the road, and that the tender and the steam locomotive are correctly coupled to the train;
- d) when the composition of the train does not comply with the specified rules, report this to the head of the station.
- (2) In case of disagreement between the head of the station and the driver, these are resolved by the procedure established by the administration of each road.
- (3) When single steam locomotives is operated, the duties of the chief conductor are assigned to the driver.

Annex to the Rail Business Journal [«Zheleznodorozhnoe delo»], 1892, No. 45–46 ●





REVIEW

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Once again about the law. Military law: transport aspects.

SELECTED ABSTRACTS OF PH.D. THESES

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- Improving information interaction in decision support systems and managing the transportation process of raw materials supplies.
- Vertical dynamic forces in the contact area of vehicle wheels and rails within a ballastless track structure.
- Improving the methods for diagnosing the insulation of power transformers of the traction power supply system using mobile technical devices.
- Improving the efficiency of a diesel gas engine by regulating the ratio of air and fuel in cylinders.





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