

Railways (Opening for Public Carriage of Passengers) Rules,2000

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Railways (Opening for Public Carriage of Passengers) Rules,2000

In exercise of the powers conferred by sections 28, 29 and 198 of the Railways Act, 1989 (24 of 1989), the Central Government hereby makes the following rules, namely:-

1. Short title, commencement and application :-

(1) These rules may be called the Railways (Opening for Public Carriage of Passengers) Rules, 2000.

1 [(2) They shall come into force on the date of their publication in Official Gazette.]

(3) They shall apply to Government railways and also to non-government railways.

Inserted by Notification No GSR44(E) dated 27.01.2005 w.e.f. 28.01.2005.

2. Definitions :-

In these rules, unless the context otherwise requires, -

(a) "Act" means the Railways Act, 1989 (24 of 1989);

(b) "Bridge Engineer" means the Chief Engineer, the Deputy Chief Engineer (bridges) or any other engineer responsible for the construction and design of bridges ;

(c) "Commissioner" means the Chief Commissioner of Railway Safety or a Commissioner of Railway Safety appointed under Section 5 ;

(d) "carriage" means the carriage of passengers or goods by a railway administration;

(e) "Form" means a form appended to these rules;

(f) "General Manager" means, -

(i) in case of a Government railway, the General Manager of a Zonal Railway appointed under Section 4 and includes the Chief Administrative Officer, the Chief Project Manager or any other officer, not below the rank of Under Secretary to the Government of India, who is the Head of the Department and to whom the powers of the General Manager have been delegated by general or special order under Section 28 ; and

(ii) in the case of a non-Government railway, the person who is the Chief Executive of that railway, by whatever name called and such other officer of that railway to whom the powers of the Chief Executive have been delegated;

(g) "General Rules " means the Indian Railways (Open Lines) General Rules, 1976, as amended by the Indian Railways (Open Lines) General Amendment Rules, 1991 ;

(h) "Government railway " means a railway owned by the Central Government ;

(i) " Inspection Report " means the inspection report of the Commissioner given under rule 18;

(j) "level crossing" means an inter-section of a road with lines of rails at the same level ;

(k) " non-Government railway " means a railway other than a Government railway ;

(l) "passenger" means a person travelling with a valid pass or ticket;

(m) "railway" means a railway, or any portion of a railway, for the public carriage of passengers or goods, and includes -

(1) all lands within the fences or other boundary marks indicating the limits of the land appurtenant to a railway ;

(2) all lines of rails, sidings, yards, branches used for the purposes of, or in connection with, a railway and includes bridges over which lines of rails passes;

(3) all electric traction equipment, power supply and distribution installations used for the purposes of, or in connection with, a railway;

(4) all rolling stock, stations, offices, warehouses, wharves, workshops, manufactories, fixed plant and machinery, roads and streets, running rooms, rest houses, institutes, hospitals, waterworks and water supply installations, staff dwellings and any other works constructed for the purpose of, or in connection with, railway;

(5) all vehicles which are used on any road for the purposes of traffic of a railway and owned, hired or worked by a railway; and

(6) all ferries, ships, boats and rafts which are used on any canal, river, lake or other navigable inland waters for the purposes of the traffic of railway and owned, hired or worked by a railway administration, but does not include -

(A) a tramway wholly within a municipal area; and

(B) lines of rails built in any exhibition ground, fair park, or any other place solely for the purpose of recreation ;

Explanation. - For the purpose of these rules, "railway" shall include newly built railway lines, either as extension of an existing railway, or as double or multiple lines alongside an existing one, conversion of railway from one gauge to another, restoration of abandoned lines, the use of electric motive power or change of traction from Direct Current (DC) to Alternate Current (AC) on an existing line;

(n) "railway administration", in relation to –

(a) a Government railway, means the General Manager of a Zonal Railway; and

(b) a non-Government railway, means the person who is the owner or lessee of the railway or the person working the railway under an agreement and includes the Chief Executive of that railway by whatever name called;

(o) " railway servant " means any person employed by the Central Government or by any railway administration in connection with the service of any railway ;

(p) "rolling sk" includes locomotives, ² [tender], carriages, wagons, rail-cars, containers, trucks, trolleys and vehicles of all kinds moving on rails;

(q) "section", means a section of the Act ;

(r) "Schedule" means a Schedule annexed to these rules ;

(s) "traffic" includes rolling sk of every description as well as passengers and goods;

(t) "Zonal Railway" means a Zonal railway constituted under Section 3 and in the case of a non-Government railway such division or section of that railway as the Central Government may, in consultation with that railway, notify ;

(u) all other words and expressions used in these rules, but not defined shall have the same meanings, respectively assigned to them in the Act and in the Indian Railways(Open Lines) General Rules,1976.

Substituted the word "lenders" by Notification No GSR44(E) dated 27.01.2005 w.e.f. 28.01.2005.

CHAPTER 2

PREPARATION FOR OPENING OF RAILWAYS

3. Reference to the Commissioner :-

3[(1) Every Railway Administration shall ensure that the railway line or a portion thereof to be opened for public carriage of passengers is complete in all respects as per the Indian Railway Standard Codes and Manuals of practice or as per the Codes and Manuals of Practice as specifically approved by Central Government for that Railway and for such opening all the administrative formalities are complete and that the working of the railway is regulated by the Indian Railways (Open Lines) General Rules, 1976 or any other General Rule as approved by the Central Government and notified in the Gazette of India,]

4 [(2) Where the General Manager of a Zonal Railway, or the Chief Executive of a non- Government railway is of the opinion that any railway or part thereof is required to be opened for public carriage of passengers, he shall refer the matter to the Commissioner for inspection and report on the safety of that railway.]

Substituted by Notification No GSR762(E) dated 08.10.2001 for the following :- "(1) Every railway administration shall ensure that the railway line or a portion thereof to be opened for public carriage of passengers is complete in all respects as per the Indian Railways Standard Codes and Manuals of Practice and for such opening all the administrative formalities are complete and that the working of the railway is regulated by the Indian Railways(Open Lines) General Rules,1976."

Substituted by Notification No GSR44(E) dated 27.01.2005 for the following :- "(2) The Chief Executive of the railway administration of a non-Government railway, before making a reference to the Commissioner under sub-rule(3) for inspection of any railway, shall obtain a clearance from the Central Government that the railway which is sought to be opened has been constructed and maintained by that administration in accordance with the Indian Railways Standard Codes and Manuals of Practice and the working of the railway is governed by the Indian Railways(Open Lines) General Rules,1976. (3) Where the General Manager of a Zonal Railway, or the Chief Executive of a non-Government railway is of the opinion that any railway or part thereof is required to be opened for public carriage of passengers, he shall refer the matter to the Commissioner for inspection and report on the safety of that railway."

4. Supply of certain documents to Commissioner :-

(1) The General Manager of a Zonal Railway or the Chief Executive of the non-Government railway ⁵ [while making a reference to the Commissioner for inspection under sub-rule (2) of rule 3, shall furnish all the relevant documents to the Commissioner within a period of one month before the date on which a railway line or a section of a railway line is proposed for opening by the railway] from the following list of documents, namely :-

(a) Tabulated details;

(b) Index Plan and Section of railway;

(c) Drawings of works;

(d) List of questions and answers;

(e) Certificates;

(f) List of infringements of Maximum and Minimum Dimensions;

(g) Working orders to be enforced at each station; and Administrative note giving the salient features of the project. </SS>

(2) The documents referred to in sub-rule (1) shall indicate the distances from the same "fixed point", in kilometres and decimals up to two digits and the fixed point shall be clearly defined in a Note and on the Plan and Section sheets of the work documents.

(3) The datum adopted shall be "Mean Sea Level" as fixed by the Survey of India and all heights shall be mentioned with reference to the datum in meters and decimals up to two digits.

Substituted by Notification No GSR44(E) dated 27.01.2005 for the following :- "shall furnish all the relevant documents to the Commissioner while making reference to the Commissioner for inspection under rule 3"

5. Contents of documents to be supplied :-

The documents referred to in rule 4 shall contain the details as specified below:-

(1) Tabulated details which shall consist of important characteristics of the railway or a portion of railway to be opened for public carriage of passengers and in particular include -

- (a) Curve abstract as specified in Form I;
- (b) Gradient abstract as specified in Form II;
- (c) Bridge abstract as specified in Form III;
- (d) Important bridges particulars of waterway and construction as specified in Form IV;
- (e) Ballast and Permanent Way as specified in Form V;
- (f) Stations and station sites as specified in Form VI;
- (g) Station accommodation as specified in Form VII;
- (h) Station machinery as specified in Form VIII;
- (i) Level crossing abstract as specified in Form IX;
- (j) Brief particulars of traction installations as specified in Form X;
- (k) Power supply installation abstract as specified in Form XI;
- (l) Traction maintenance depot abstract as specified in Form XII
- (m) Restricted Over Head Equipment clearances abstract as specified in Form XIII; and
- (n) Electrical crossing over railway track abstract as specified in Form XIV.

(2) Index Plan and Section sheet shall be prepared as laid down in paragraphs 443 to 451 of the Indian Railways Code for the Engineering Department as reproduced in Schedule.

(a) Completion drawings of bridges, with drawings showing each type of girders used and giving the loading standard for which each is designed, and (if called for by the Commissioner), details of the calculations of their strength;

(b) Completion drawings of tunnels, if any;

(c) Diagrammatic plans of station yards showing the gradients, the layout of tracks and particulars of turn out, block working and of any signals and interlocking installed;

(d) Implantation of diagrams of Over Head Equipment masts, if applicable.

(3) List of Questions and Answers shall be prepared in terms of questions enlisted in Form XV.

(4) Certificates of works shall comprise -

(a) Certificate in Form XVI containing the comments on the following matters, namely :-

(i) maximum and minimum dimensions;

(ii) strength of bridges;

(iii) number of engines on one span ;

(iv) brake and communications;

(v) accommodation in coaches to cater for different categories of passengers ;

(vi) system of working;

(vii) electric traction equipment (only if applicable); and

(viii) types of rolling sk proposed along with list of restrictions.

(5) List of infringements of maximum and minimum dimensions shall be prepared in Form XVII and shall show the gauge of the railway and items infringed and shall contain full explanation for the infringement and the reference to the authority under which the infringement is permitted or allowed.

(6) Working orders to be enforced at each station on the railway to be opened shall be prepared in accordance with the rules provided in Chapter V of the General Rules and shall specify any special conditions that are required to be met with.

(7) Where it involves introduction of electric traction on the railway line the working orders shall include traction working rules.

CHAPTER 3

DUTIES OF THE GENERAL MANAGER

6. Deviation from or infringement of Standard Codes and Manuals of Practice to be notified :-

(1) The General Manager shall ensure that the railway proposed to be opened is operationally fit in every respect before inspection.

(2) The General Manager shall, while making the reference under rule 3, bring to the notice of the Commissioner any deviation in design, material and construction of the works, rolling sks or appliances of the railway, instances in which Maximum and Minimum Dimensions have not been observed, or the bridges, tunnels are not capable of carrying the prescribed or standard load without exceeding the stress specified in the Indian Railways Standard Codes and Manuals of Practice.

7. General Manager to make special arrangements :-

(1) The General Manager shall make such arrangements as are necessary to facilitate the inspection by the Commissioner, of the railway, which is to be opened.

(2) The General Manager shall be responsible to make such special arrangements as the Commissioner may require for inspection and testing of bridges and tunnels on the railway, which is to be opened.

8. Supply of information to Commissioner :-

The General Manager shall supply all the information and give all the assistance in his power to the Commissioner and supply or provide all instruments and apparatus required for making measurements, testing of bridges and electrical and other installations.

9. Dismantling of any work on request by Commissioner :-

(1) The General Manager shall, on receipt of a request made by the Commissioner, make arrangements to dismantle any structure on the railway to be opened, with a view to make complete examination of the details or workmanship of the structure, as quickly and completely as possible.

(2) The Commissioner, while requesting the dismantling of the structure, shall be responsible to see that such dismantling does not affect the utility or strength of the structure, unless total dismantling is necessary for its proper inspection.

10. General Manager to accompany Commissioner at inspection :-

(1) The General Manager ⁶[may accompany] the Commissioner throughout the inspection.

⁷ [(2) If, for any unavoidable reason, it is not possible for the General Manager to accompany the Commissioner, then the Chief Administrative Officer or the Chief Engineer (Co-ordination) Construction, along with other concerned officers shall accompany the Commissioner during the period of inspection.

(2A) The Divisional Railway Manager along with the concerned branch officers shall also accompany the Commissioner during the entire period of inspection.]

(3) During the inspection of each portion or division of the railway, the engineer or officer who is or was in immediate charge of that portion or division of the railway during its construction may also be present.

(4) An officer not below the rank of Assistant Engineer shall be made responsible for making arrangements for testing bridges on the railway line.

Substituted by Notification No. GSR44(E) dated 28.01.2005 for the words "shall accompany".

Substituted by Notification No. GSR44(E) dated 28.01.2005 for the following :- "(2) If, for any unavoidable reason it is not possible for the General Manager to accompany the Commissioner, then, an officer not below the rank of Under Secretary to the Government of India authorised by general or special order of the Central Government issued under Section 28, shall accompany the Commissioner and shall be present during the entire period of inspection."

CHAPTER 4

DUTIES OF THE COMMISSIONER

11. Commissioner to make full and complete examination :-

(1) On receiving a reference under rule 3 from the General Manager of any railway for inspection of a railway to be

opened for public carriage of passengers, the Commissioner shall, with a view to determine whether it is fit to be so opened, enquire into all matters which appears to him relevant for the safety of public carriage of passengers and goods, on that railway.

(2) The Commissioner shall satisfy himself that -

(a) the Indian Railways (Open Lines) General Rules, 1976 have been applied to the railway or portion of a railway proposed to be opened;

(b) the maximum and minimum dimensions have been observed;

(c) the works, structures, rolling stocks and appliances belonging to, or working on, the railway are designed properly or constructed in such manner so as to guard the system against accident and failure.

12. (a) Adequate provisions have been made for handling of traffic of passengers and goods; and :-

The Commissioner shall satisfy himself that at every station on a railway proposed to be opened -

(b) arrangements have been made for easy access by road.

13. Accommodation works :-

Where the accommodation works made under Section 16 are to be inspected, the Commissioner shall ensure that such works are sufficient and suitable for the purpose for which they are provided or constructed.

14. Inspection of light railways :-

The Commissioner shall, while inspecting any light railway to be opened for public carriage of passengers, take into consideration -

(a) speed limits which are specified with reference to narrow gauge of the line and the kind of traffic proposed to be handled;

(b) standard of convenience of the passengers keeping in view the condition in which the light railway shall be operated, and shall lay down the speed limits to be observed and the kind of traffic the light railway may be allowed to handle.

15. List of questions and answers :-

(1) The Commissioner shall take into consideration the answers provided by the General Manager to the questions listed in the list of questions and answers submitted in relation to them under sub-rule (4) of rule 5 and satisfy himself that the points enumerated therein have been duly observed by the concerned railway administration.

(2) The Commissioner may, if he considers it necessary, modify the requirements specified in answers in accordance with the circumstances of each case.

16. Inspection of railway bridges :-

(1) The Commissioner shall satisfy himself that the railway bridges and other elevated structures on the railway proposed to be opened for public carriage of passengers are designed and constructed as to the loads specification specified in the IRS Bridges Rules, 1964 and that the loads specification and stress limits are not exceeded.

(2) The Commissioner shall be responsible to see that under no circumstances the stresses specified in the Standard Codes of Practice for bridges are exceeded, unless the Central Government, by general or special order, specify different stresses or loads specification, for the reasons recorded therein, in a specific case.

(3) Where the Commissioner is satisfied that first class standards are not required in the cases such as temporary bridges, railway worked at low speed or with small axle loads, he may recommend departure from the IRS Bridge Rules, 1964 and the Standard Codes of Practice on such conditions as he may deem fit, provided that the Commissioner shall forward with his report the calculations showing that the opening of such bridges, railways or axle loads will not be dangerous to the public carriage of passengers and the railway servants.

(4) Where any particular bridge is not up to the standards mentioned in sub-rules (1) to (3), the Commissioner shall submit the design of the bridge along with the standard of loading to the Central Government along with his recommendations as to whether the bridge may be brought in use and if so, under what conditions.

17. Procedure for inspection of bridges :-

(1) The Commissioner shall examine at least one bridge of each different pattern or type and satisfy himself about the adequacy with reference to safety of -

(a) the general design of the bridge;

(b) designs of different parts or portions of the bridge;

(c) the construction and erection of the whole structure of the bridge;

(d) girder spans and their bedding at all four supports; and

(e) type and design of bearings in regard to pre-stressed bridges.

(2) Where the Commissioner feels that it is necessary for the purpose of inspection and to see whether any riveting

has been properly and efficiently executed, he may order the cutting out any rivets and may also order the dismantling of any part of the structure of the bridge for more detailed examination.

(3) If the Commissioner considers it necessary, in addition to the certificate of a Bridge Engineer employed

for the purpose, he can call for the Load Deflection Test under the loads for which the bridge is designed and where this is not possible under the heaviest loads available.

(4)

(a) When making Card Deflection Test, the test cards are to be placed at right angles to the centre line of the track, in order to record oscillation and the recording pencil point should be as fine as possible.

(b) When central deflection is measured, allowance shall be made for the deflection, if any, of the abutments.

(5) In order to record the static deflection, the test shall be carried out at dead slow speed and at the maximum permissible speed of the section and the speed shall be carefully measured by stopwatch or by some automatic means.

(6) The actual deflection cards shall be submitted to the Commissioner together with a statement of deflections and oscillations in Form XVIII.

(7) The deflection of the girder shall be worked out theoretically and shall be shown in column 12 of Form XVIII to enable a comparison being made with the observed deflection.

(8) In addition to the Card Deflection Test, the Commissioner may, at his discretion, require Stress Recorder Test to be carried out on any plate or open web girders of clear spans exceeding 30 metres.

(9)

(a) Stress Recorder Test shall be carried out with a stress recorder of approved type.

(b) Tests loads and speeds shall be as specified for card Deflection Tests.

(c) Tests shall be taken, on the chords or flanges at mid span and on such web and floor members as the Commissioner shall specify.

(d) If a sufficient number of instruments are available, these tests shall be made simultaneously.

(10) The stress recorder diagrams together with calculations showing how the maximum stress under the design load with full impact (including dead load stresses) is deduced from the measured stress shall be submitted to the Commissioner who shall, before sanctioning the opening of the bridge, satisfy himself that the stresses in the girders will not exceed those specified in the IRS Steel Bridge Code, 1962.

(11) If the Commissioner is satisfied that the girder has been properly designed for the work it is intended to perform, then, the open web and plate girders are not required to be tested.

(12) New plate girders of standard designs need not be tested if those girders were inspected at the time of their manufacture by the Research, Design and Standards Organisation or any other inspecting agency and a certificate of satisfactory erection including the seating of the bearings and field riveting has been given.

(13) The Commissioner may decide that the second hand plate girders are not required to be tested if he is satisfied that -

(i) the girder is strong enough for the work it is intended to perform; and

(ii) the responsible officer of the concerned railway has certified that the condition of the material and workmanship are such that the use of the girder for the specified loading shall not involve stresses in excess of those permitted in the IRS Steel Bridge Code, 1962, provided that this sub-rule shall not apply to welded girders.

(14) The Commissioner may have tests of any number of spans made and may have a span tested any number of times and at any speeds as he considers desirable, up to the maximum permissible speed of the Section.

(15) Card Deflection Test shall be carried out for each welded girder including second hand girders, and results of such tests, together with the cards, shall be supplied to the Commissioner.

(16) The Commissioner shall examine as many welded girders as possible and shall also have Card Deflection Test of any welded girder carried out in his presence.

(17) The Commissioner shall be supplied with a certificate from the engineer (not below the Junior Administrative Grade) responsible for design and construction of the bridge to the effect that welds have been designed in accordance with the IRS Code for Mild Steel Bridges carrying rail, 1972 and executed to the satisfaction of the said engineer.

(18) If radiographic examination of the welds is specified in the drawing or procedure sheet or is required to be done in accordance with the provisions of the IRS Code for Mild Steel Bridges carrying rail, 1972, the results of such examination shall be annexed to the certificate.

18. Contents of Inspection Report :-

(1) The Inspection Report of the Commissioner shall specify that

- (a) he has made a careful inspection of the railway and the rolling stock that may be used thereon;
 - (b) the moving and fixed dimensions as laid down have not been infringed;
 - (c) the structure of lines of rails, strength of bridges, general structural character of the works and the size of, and maximum gross load upon the axles of any rolling stock, comply with the requirements laid down; and
 - (d) in his opinion, the railway can be opened for the public carriage of passengers without any danger to the public using it.
- (2) The Inspection Report shall be clear and concise and shall deal with all matters which are required to be considered, particularly whether the railway line is designed for standard loading and the instances of deviation or infringement of Maximum and Minimum Dimensions.

19. Documents accompanying Inspection Report :-

The following documents shall accompany the Inspection Report, namely :-

- (i) Index Plan and Section of railways;
- (ii) Tabulated details in Forms I to XIV;
- (iii) List of Questions and Answers in Form XV ;
- (iv) Certificate by the General Manager of the concerned railway in Form XVI ;
- (v) List of infringements of Maximum and Minimum Dimensions in Form XVII ;
- (vi) Results of the bridge test in Form XVIII;

8 [Explanation. - When sanction is required for the initiation of electric traction on a line already opened for passenger traffic, the documents specified in items (j), (k), (l), (m) and (n) of sub-rule (1), item (d) of sub-rule (2) and item (a) (vii) of sub-rule (4) of rule 5 shall be forwarded to the Commissioner.]

Substituted by Notification No. GSR44(E) dated 28.01.2005 for the following :- "Explanation. - When sanction is required for the initiation of electric traction on a line already opened for passenger traffic, only such of the documents, as are required by the Commissioner, need be forwarded to him."

20. Submission of Report to Central Government :-

In respect of every reference made to him under sub-rule (3) of rule 3, the Commissioner shall submit an Inspection Report to the Central Government.

CHAPTER 6

SANCTION TO OPEN RAILWAY FOR PUBLIC CARRIAGE OF PASSENGERS

21. Sanctioning of opening of railway :-

9 [(1) The Central Government may, after considering the Inspection Report of the Commissioner, confirm, modify or cancel the sanction given under rule 22(1) subject to such conditions, alterations or relaxations as may be considered necessary.

(2) While confirming the opening of any railway, the Central Government shall give due consideration to the suggestions or conditions subject to which the Commissioner has opened the railway.

(3) Where the Commissioner has not recommended the opening of any railway or has proposed to cancel the sanction already given, the Central Government shall confirm or modify the recommendation of Commissioner as necessary and shall direct the Railway Administration concerned to remove the defects or shortcomings reported by the Commissioner.]

(4) Where the defects or shortcomings are such that they cannot be removed unless the railway or a portion thereof is dismantled, then the Central Government shall order the closing of the railway forthwith for the public carriage of the passengers.

(5) A railway line, which is closed for the public carriage of passengers under Section 25, shall not be reopened unless it is duly inspected by the Commissioner in accordance with the provisions of Chapter IV of these rules and the Commissioner recommends the reopening of such railway line.

(6) The actual date of opening of a new railway line or a section or portion of such line for passenger traffic shall be notified by the concerned General Manager, after consulting the Central Government, by notification in the Official Gazette, and in the local news papers of the areas through which the railway line passes.

Explanation .- In this Chapter new lines of railway shall include -

- (a) extensions of existing railways, new double, treble or other running lines laid alongside existing lines and conversion from one gauge to another;

(b) the initiation of electric traction on the existing line.

Substituted by Notification No GSR762(E) dated 08.10.2001 for the following :- "(1) The Central Government may, after considering the Inspection Report of the Commissioner, sanction the opening of any railway or a portion of a railway for the public carriage of passengers. (2) While sanctioning of the opening of any railway, the Central Government shall give due consideration to the suggestions or conditions subject to which the Commissioner has recommended the opening of the railway. (3) Where the Commissioner has not recommended the opening of any railway, or has proposed to cancel the sanction already given, the Central Government shall confirm, modify or cancel the sanction given to the opening of such railway or a portion thereof and shall take steps to remove the defects or short comings pointed out by the Commissioner in his Inspection Report in the case of Government railway, and in the case of non-Government railway direct the General Manager concerned to remove the defects or short comings reported by the Commissioner."

22. Opening of railways by Commissioner :-

(1) The Commissioner, after inspection, may under Section 28 sanction the opening for public carriage of passengers of new lines of Railway within the respective circles subject to the conditions as the Commissioner may impose.]

(2) **11** [***]

Deleted the following by Notification No GSR762(E) dated 08.10.2001:- "(2) On receipt of the Inspection Report of the Commissioner, the Central Government may confirm, modify or cancel the sanction given under sub-rule (1) subject to such conditions, alterations or relaxation as may be considered necessary."

23. Sanction to use locomotive engines and rolling sk on new lines :-

(1) The Commissioner may sanction the use of locomotive engines, rolling sk, or any other motive power under Section 27 which is already running on any Zonal railway, or any division or section of any non-Government railway, or on any new lines in accordance with the provisions of the Indian Railways(Open Lines) General Rules,1976 or orders on the subject issued by the Central Government from time to time. Before according sanction under sub-section (1), the Commissioner shall ascertain that the application of the Indian Railways(Open Lines) General Rules,1976 by the concerned railway administration which operates the line has been previously sanctioned and notified in the Official Gazette.

CHAPTER 7

OPENING OF BRIDGES, MINOR WORKS, DIVERSIONS AND USE OF NEW TYPES OF ROLLING SK ON EXISTING RAILWAYS

24. Notice of construction of deviation lines, etc. :-

(1) Where it is proposed, on the railway which had been opened after inspection, to construct any deviation lines, stations, junctions or crossings on the level, or to make any addition, alteration or reconstruction materially affecting the character of any work and such work forms part of, or is directly connected with the working of that railway, the railway administration concerned shall give notice to that effect to the Commissioner.

(2) Before any such work, the execution of which may affect the running of trains carrying passengers, is put in hand, the concerned railway administration shall furnish to the Commissioner for his approval drawings or particulars of the work and of any temporary arrangements necessary for carrying it out.

(3) Every temporary deviation line irrespective of its length and any permanent diversion less than 2 kilometres in length, where no new station is involved, shall be treated as new minor works.

(4) In case of an accident, temporary diversions may be opened under Section 24 after a **12**[railway servant in-charge of work] of the concerned railway certifies that the use of such diversion will not be attended with danger to passengers or to the railway servants.

13 [(5) Where the use of temporary diversion is likely to be extended to more than 3 days, the Commissioner shall, if he considers it necessary, take the earliest possible opportunity of inspecting it.

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Substituted by Notification No GSR762(E) dated 08.10.2001 for the following :- \"(2) For the works opened without inspection, the Commissioner shall take steps for carrying out a subsequent inspection."

Substituted by Notification No GSR762(E) dated 08.10.2001 for the following :- "(5) Where the use of the temporary diversion is likely to be extended to for more than three days, the Commissioner shall take action to inspect the diversion at the earliest opportunity."

25. Power of Commissioner to open minor works :-

(1) The Commissioner may, without previous notice, sanction the opening of any minor work for passenger traffic, if he is satisfied, either with or without inspection, that the provisions of clauses (b),(c)and (d) of sub section (1) of Section 22 have been duly fulfilled.

14 [(2) Works so opened without inspection, should ordinarily be inspected at the earliest possible date, but in case of works of a minor character, the Commissioner of Railway Safety will exercise his discretion as to the necessity of carrying out a subsequent inspection.]

(3) The authority for opening any work shall be communicated in writing by the Commissioner to the concerned railway administration and a record of all works so authorised during each year, with particulars of the prior or subsequent inspection, if made, shall be maintained by the Commissioner.

Substituted by Notification No. GSR44(E) dated 28.01.2005 for the words "responsible officer"

26. Infringements of Maximum and Minimum Dimensions :-

No infringement of the Maximum and Minimum Dimensions shall be permitted without the prior sanction of the Commissioner or of the Central Government.

27. Opening of new or strengthened bridges :-

(1) No railway bridge shall be erected or re-opened to traffic, after strengthening, without the sanction of the Commissioner even though it is able to carry the loads without exceeding the stresses prescribed in the relevant Codes of Practice or in the absence of any such reference, the design criteria approved by the Central Government.

(2) No load shall be imposed on any railway bridge which would cause in any member thereof stresses greater than those specified in sub- rule (1), without the sanction of the Commissioner.

(3) Closure of an existing bridge shall require the sanction of the Commissioner.

28. Use of new types of locomotives or rolling sk :-

(1) Any railway administration which desires to use new types of locomotives or rolling sk different from those already running on any section or division of its railways, shall apply for sanction for the same to the Central Government through the Commissioner.

(2) The application under sub-rule (1) shall be accompanied by -

(i) such diagrams as may be necessary to give full particulars of the axle loads, wheel spacing, length over buffers and other principal dimensions of the rolling sk for which sanction is required;

(ii) a certificate signed by the Chief Engineer, the Chief Mechanical Engineer and the Chief Electrical Engineer (for Electric sk) of the concerned railway in the Form given below:-

(3) The proposal must be scrutinised by the Commissioner and his recommendations thereon shall be submitted to the Central Government for its orders.

(4) No new type of engine or rolling sk which would cause stresses exceeding those specified in the IRS Bridge Rules, 1964, or the Standard Codes of Practice , or in the absence of any such reference, the design criteria approved by the Central Government for existing structures or excessive stresses in track shall be ordered until the sanction of the Central Government has been received through the Commissioner for doing so.

(5)

(a) For permitting new designs of locomotives, the Commissioner may require oscillation trials to be conducted and call for the records for his scrutiny.

(b) The certificate referred to in clause (ii) of sub-rule (2) shall indicate clearly that the speed certified does not exceed the limits laid down by the Research, Designs and Standard Organisation. In addition, the maximum number of motive power units proposed to be coupled together for multiple operation shall be specifically mentioned.

(c) For increase of speed beyond 100 km/hour on broad gauge and ¹⁵ [105 km/hour] on meter gauge of nominated trains on specific routes, the Commissioner may require route proving run by portable accelerometer or confirmatory oscillograph car run as per the instructions for the time being in force on the entire route at the maximum proposed speed. The Chief Signal and Telecommunication Engineer and the Chief Operations Manager shall sign the joint safety certificate in this case also.

(6) Any modification in the design of the coach which alters the system of operation and control over the rolling sk, like change in the braking system or change in the principle of traction shall be considered as a material modification and shall constitute a change in the type and design of the rolling sk.

(7) Any modification in the coach or rolling sk affecting the salient dimensions or suspension system or running gears and any other modifications including body, seating arrangements and the like irrespective of whether such modifications affect the riding quality of the rolling sk or not, shall also constitute a change in type or design of the rolling sk.

(8) Introduction of any train consisting of new coaching sks of different design or type which are not already running on the section of a railway system shall also require the sanction of the Commissioner.

Substituted by Notification No GSR44(E) dated 28.01.2005 for the following :- "2[(5) When the use of temporary diversion is likely to be extended to more than 3 days, the Commissioner will, if he considers it necessary, take the earliest possible opportunity of inspecting it.]"

29. Testing of bridges :-

Before sanctioning the opening of new or strengthened bridges or the running of heavier loads over existing bridges, the Commissioner may require Card Deflection or Stress Recorder Test to be carried out as specified in Chapter IV. Tests on Pre Stress Concrete girder or composite girder bridge may also be carried out.

30. Use of new types of Block Instruments :-

(1) A railway administration, which desires to use a new type of block instrument, or main Signalling instrument, which is not an approved type, shall apply for sanction to the Commissioner.

(2) The application under sub-rule (1) must be accompanied by -

(i) a list of the requirements which the instrument fulfils, together with the results of the field trial conducted by the railway concerned;

(ii) a certificate from the Chief Signalling and Telecommunications Engineer in the form given below:-

CERTIFICATE

Certified that it is safe to use (particulars of the equipment) at the station / on the section of the railway, with the following precautions:-

- 1.
- 2.
- 3.
4. etc.

[Sd/----]

The Chief Signalling and Telecommunications Engineer.

Note. - The application should be scrutinised by the Commissioner, who if satisfied, will communicate his sanction to the concerned railway. In case he is not fully satisfied, he will give his comments and recommendations for suitable further action.

Note. - The application should be scrutinised by the Commissioner, who if satisfied, will communicate his sanction to the concerned railway. In case he is not fully satisfied, he will give his comments and recommendations for suitable further action.

(iii) A statement whether the equipment complies with the specifications approved by the Central Government.

(iv) A statement giving comments on the performance of the equipment as a result of bench trials conducted by Research, Designs and Standards Organisation.

(v) The circuit diagrams and other relevant diagrams and explanations, as may be necessary, to give full particulars of the principles of operation and safety features incorporated.

(vi) A copy of the instructions approved by the Chief Operating Manager, to be issued for the operation of the equipment by the operating staff, including those instructions for working under abnormal or failure conditions;

CHAPTER 8

REQUIREMENTS AND RECOMMENDATIONS FOR SIGNALLING AND INTERLOCKING INSTALLATIONS

31. Signals :-

(1) The number of signals provided and the height of such signals shall be limited to the extent to the actual necessity for safety and traffic purposes.

(2) The distance between the Distant/Warner and the first stop signal ahead shall be such that a train approaching the former at the highest authorised speed with due allowance for weight, braking power, gradient and sighting distance can be stopped before passing the latter.

(3) The subsidiary signals shall be readily distinguishable from the running signals.

(4) Where a signal or its back light is not visible to the railway servant operating the signals, the aspect of the signal and the condition of the light shall be repeated at the place of operation.

(5) It is desirable that the signalling at all block stations and interlocked level crossings in the same section shall conform to the same standard and type.

(6) Signals shall be so designed as to give the most restrictive aspect in the event of failure of any part of the mechanism, which operates them.

(7) The location and type of signals shall be in accordance with the provisions contained in Chapter VII of the Signal Engineering Manual, Part I and Chapter III of the Indian Railways (Open Lines) General Rules, 1976.

32. Points :-

(1) Points shall be so located that movements over them shall be within the view of the cabin or the location from which they are worked unless an approved alternative arrangement for direct vision is provided.

(2) The points, locks and bars shall not be worked by wire but by rodding or by power operation.

(3) Spring points shall not be used.

(4) Movable crossings and movable diamond crossings on passenger lines shall be provided with complete facing point equipment of approved type.

(5) The requirements of points as stipulated in Chapter VII of the Signal Engineering Manual, Part I, shall be followed.

33. Interlocking :-

(1) Signal and interlocking apparatus and installations shall be in accordance with Chapter VII of the Signal Engineering Manual, Part I.

(2) Apparatus provided for operation and control of signals, points, etc., shall be interlocked and arranged to comply with the essentials of interlocking and other requirements as laid down in Chapter VII of the Signal Engineering Manual, Part I.

(3) The operation of the signalling gears may be from a lever frame or a panel with individual operation of points, signals and other functions or a panel providing operation of route setting type or any other approved means in accordance with the provisions of Chapter VII of the Signal Engineering Manual, Part I

.

(4) When a signal is controlled by more than one agency, it shall be possible for every such controlling agency to replace the signal to "ON" position.

(5) The Station Master shall be provided with interlocked mechanical or electrical control of the Home and Last Stop Signals except where the conditions stipulated in the Signal Engineering Manual, **16** [***] are fulfilled.

(6) Standards of signalling and interlocking shall be arranged complying with the requirements of the Signal Engineering Manual.

Omitted the words "Paragraph 7.88.2" by Notification No. GSR44(E) dated 28.01.2005.

34. Siding and trap points :-

(1) Sidings shall be arranged in such a manner that shunting operations upon them shall involve the least possible use of, or obstruction to, running lines.

(2) Trap points shall be provided upon goods lines and sidings at their junctions with passenger lines, with the points normally set against the passenger lines and interlocked with the signals.

(3) Bay and loop platforms line and refuge loops shall be isolated from main through lines.

35. Junctions :-

Bars or other approved devices shall be provided in order to define the fouling points of junctions, loops, siding connections, crossings and the like.

36. Provision for isolation at stations :-

(1) The speed of trains running through stations shall be governed by the General Rules for all open lines administered by the railway administrations, both Government and the non-Government railways and shall be subject also to the restrictions relating to standards of interlocking prescribed in the Signal Engineering Manual.

(2) At no station at which isolation has not been provided through running trains shall be permitted unless the conditions laid down in the second paragraph of rule 4.11 of the General Rules are complied with.

(3) At any station where there is a speed restriction for through running trains different from neighbouring stations, a speed restriction board should be erected at the first approach signal or where no signals are provided, at full braking distance outside the first facing point.

(4) In order to maintain safety for through running, points for trap sidings must not be inserted in the main line or through line, except under approved Special Instructions in accordance with the Signal Engineering Manual, Part I.

(5) All passenger running lines shall be isolated from all goods lines or sidings connected thereto.

(6) All goods running lines may be isolated from all sidings connected thereto.

(7) It is not necessary to isolate one goods receiving line from another

(8) Isolation may be accomplished by -

(a) connection to another line or long siding;

(b) the provision of short dead end siding; or

(c) the provision of trap.

Note. - (i) Whichever may be the method for isolation, a starter signal shall be provided, except when omitted under approved special instructions. (ii) When a trap is provided, the trap switch should be located with the heel of the switch in rear of the fouling mark and preferably on the straight. The switch should be in the rail away from the line to be protected.

(9) The various methods of isolation are illustrated in the diagrams given in Appendix A attached to these rules and the following instructions shall apply to their use in the case of running lines, namely :-

Method A: This method shall apply to cases in which the line on which the train will run when the points are set for isolation of the through line, is kept clear for the adequate distance prescribed in Rule 3.40 of the Indian Railways (Open Lines) General Rules, 1976.

Method B: When a short dead end siding is provided, it shall not ordinarily be long enough to permit of vehicles being stabled thereon. To obtain the adequate distance

prescribed under rule 3.40 of the General Rules the points of the dead end siding shall be set for the cross over and against the siding, before 2[No train shall be admitted] on a line trapped by this method. Where it is necessary for the short dead end siding to be extended for the purpose of stabling vehicles, the above rule shall apply, unless a trap is provided on the dead end siding at a distance of not less than 180 metres (120 metres in case of stations provided with multi aspect signalling) from the starter signal where provided or from points leading to the main or through line. A train must be admitted on the running line unless the trap is set and locked against vehicles occupying the further part of the dead end siding.

Method C: When a trap is used, a train must not be admitted on to the

trapped line unless the trap has been closed, so that the train will not be derailed if the driver overshoots the trap.

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(10) When Method A cannot be used, and for any reason it is not convenient to use Method B or Method C and to provide adequate distance by setting the points of the short dead end siding or trap for the cross over and against the siding or trap, a sand hump of approved design should be used as a substitute for adequate distance as provided in rule 3.40(4) of the Indian Railways(Open Lines) General Rules,1976. In that case the length of the siding should be at least one rail length and formation should be made up for a short distance beyond the hump.

Substituted by Notification No. GSR44(E) dated 28.01.2005 for the words "a train is admitted".

37. General :-

(1) The requirements and regulation of Block Instruments shall be in accordance with section 'N' and section 'R' of Chapter VII of the Signal Engineering Manual, Part I.

(2) The requirements of Centralised Traffic Control shall be in accordance with section 'Q' of Chapter VII of the Signal Engineering Manual, Part I.

CHAPTER 9

RULES FOR THE DESIGN AND INSPECTION OF EQUIPMENT FOR ELECTRIC TRACTION

38. Designs of electric installations :-

(1) The design of all electrical installations, namely, transmission and distribution lines, substation, switching stations, Over Head Equipment, etc. shall be according to approved standards laid down by the Central Government and the Indian Electricity Rules, 1956 or any other relevant statutory rules for the time being in force. Wherever, any departure from accepted norms becomes necessary, approval of the Central Government shall be obtained.

(2) (a) Adequate protective arrangements shall be made to ensure that the public cannot come in contact with the electric equipment on line within the railway premises. (b) Suitable protective screens shall be provided where live conductors pass under or over bridges.

(3) The structures supporting overhead equipment shall be designed in accordance with the relevant Indian Standards. The wind pressure to be adopted in such cases shall be generally in accordance with IS 875-64 except when a higher value is prescribed by the State Government, which should be ascertained by a reference to the State Government, unless a notification on the subject in connection with the electric installation other than the electric traction on railways is already issued by the State Government.

(4) When the distribution system involves overhead wires carried on steel structures including bridges and roofs and a return circuit via running rails or earth, all such structures, masts and associated tracks shall be effectively earthed and bonded or other precautions taken to ensure that contact with the steel work of the structure will not be dangerous to the public and the railway staff. In AC traction earthing and bonding shall be as per the approved Code for Bonding and Earthing.

(5) Earthing arrangements at power supply installations shall strictly conform to the Indian Electricity Rules, 1956 and accepted Codes of Practice for Bonding and Earthing for AC traction.

(6) No earth wire shall cross any track. Where structures to be connected to an earthwire are located on opposite sides of a track, separate wire runs shall be used for connecting the structures. In complicated areas, structures may be connected to individual earthing stations.

(7) When over head lines transmitting electric power (other than lines forming part of the railway traction equipment) have to be carried across railway track, the details of the equipment provided in connection with such lines must be designed with the object of minimising danger in the event of breakage and in accordance with the regulations for the Electrical Crossing, 1987. These details must be approved of the Electrical Inspector to the Government of India(EIG)

Note. - The Chief Electrical Engineer of a Zonal Railway functions as the Electrical Inspector to the Government of India.

(8) Lighting arresters of standard or approved types shall be provided wherever they are necessary.

(9) All component parts of the equipment which carry live conductors shall be provided with devices approved by the Electrical Inspector to the Government of India to prevent unauthorised persons climbing them. Anti-climbing device shall also be provided, wherever necessary, on structures carrying high-tension equipment within railway premises.

(10) On both sides of roads at level crossings, gauges of suitable design shall be provided to ensure that no part of any road vehicle or its load shall come in contact with overhead equipment.

(11) Warning notices shall be erected in conspicuous positions at level crossings and the like indicating to the existence of live electrical equipment.

39. Display of caution boards and notices :-

The following caution board and notices written in English, Hindi and the regional language shall be displayed at the various locations indicated below:-

(a) "Treatment for electric shock" boards, giving instructions for treatment of electric shock at all railway stations signalling cabins, Offices of the Station Managers, the Assistant Station

Managers, Senior Sectional Engineers(Permanent Way), the Senior Sectional Engineer

(Works), the Senior Sectional Engineer (Signal), Over Head Equipment Maintenance depots, Over Head Equipment Inspection Car Sheds, substations, switching station cubicles, loco sheds and the like.

(b) General 'Caution notices' regarding danger of high voltage traction wires for public at various entrances to railway stations and for staff at prominent places at each station, particularly on

stanchions or pillars supporting platform roof.

(c) "25 KV cautions Boards" shall be affixed on to the screen erected on foot over and road over bridges.

(d) "Danger" boards on level crossing height gauges.

(e) "Engine stop" boards, at termination of Over Head Equipment in the sections to be energised.

(a) "Caution-Unwired turn out" boards ahead of all unwired turn outs or crossovers taking off from wired tracks.

(b) "Warning" boards for neutral sections.

(c) Boards for "Switching on" and "Switching off" of power at neutral sections.

(d) "Danger" boards to be installed

on Over Head Equipment near watering stations, if any.

(e) "25/2 x 25 KV caution" boards at substations and switching stations.

(f) "Caution" notices on all diesel, Electric and steam locos, which work on the energised section, including those owned by private parties.

"Caution" boards at such signal posts where protective screening cannot be provided for signal and telecommunication staff.

40. Protection of private property against inductive effects of AC traction :-

Under 25/2 x 25KV AC traction, there is a heavy induction on all metallic structures and conductors in the vicinity of track. Inductive effects show themselves on any overhead conductor, such as metallic clothes lines, power lines, and the like belonging to private parties running parallel and close to the electrified tracks. Wide publicity shall be given to the effects of the induction, so that special precautions may be taken by private parties concerned against the possibility of electric shocks from conductors running in their premises.

41. Approval of energisation of High Tension installations :-

(1) Application shall be submitted at least a fortnight before energization to the Chief Electrical Engineer and the Electrical Inspector of the concerned railways for the following :-

(a) Formal approval, if not already received to the design and layout of all high voltage equipment including traction sub-stations, transmission lines, 25kv/2 x 25 kv feeders, switching stations, booster stations, etc ;

(b) Approval for energization of High Tension installations mentioned above including Over Head Equipment ;

(c) The application should be accompanied by documents as prescribed in Volume II(Part-1) of the Manual of AC Traction Maintenance and Operation, 1994 (sub-paragraph 2 of paragraph 21007).

(2) On receipt of an application under sub-rule(1), the Electrical Inspector shall scrutinise and inspect the design and installations in respect of the following, namely :-

(a) The layout and design for substations, Over Head Equipment and other installations for compliance with the Indian Electricity Act, 1910 (9 of 1910) and the rules made thereunder;

(b) Inspection of the completed installations, either personally or by deputising his officers for compliance with the safety requirements.

(3) After conducting the inspection under sub-rule (2), the Inspector shall convey his approval for the engerization of 25 KV/2x25 feeder lines from traction sub-station to feeding posts, switching stations, booster transformer

stations and Auxiliary transformer stations, subject to such directions as he may consider necessary.

42. Submission of application to commissioner :-

An application shall be submitted to the Commissioner with all relevant documents and certificates and notifications mentioned in paragraph 21008 and sub-paragraph 2 of paragraph 21009 of the Manual of AC Traction Maintenance and Operation, 1994, Volume II (Part I) alongwith the approval of the Electrical Inspector to the Government of India for energization.

43. Procedure for a energization of traction installations :-

(1)

(i) After obtaining the sanction of the Electrical Inspector to the Government of India for energization under rule 41, the sub-station should be commissioned sufficiently in advance of the energization of Over Head Equipment.

(ii) Before energization of the sub-station, full communication facilities should be available and power supply authorities should be ready to give power supply.

(iii) On the appointed day necessary clearance certificate should be obtained from the Senior Divisional Electrical Engineer (Construction) and others who had been hitherto working in the sub-station premises to the effect that their staff had been withdrawn and the sub station could be energised.

(iv) After final measuring of the whole installation and check on the satisfactory operation of all equipments including protective relays, the traction sub stations and other installations may be energised.

(2) In addition to giving wide publicity through newspapers and other media, the Station Master shall -

(i) warn all passengers about the danger of 25/2 KV AC Over Head Equipment and not allow them to ride on tops of coaches;

(ii) advise all diesel and steam engine drivers not to climb on engines when they are under the Over Head Equipment;

(iii) warn all members of the staff engaged in watering not to climb on the carriages without power being made off and obtaining order of the concerned controlling authority.

(3) Energization of Over Head Equipment shall be progressively undertaken starting with 25/2x25KV feeders from the sub-stations to the feeding posts, bus bars of the feeding posts followed by one sub sector after another.

(4) Before running electric rolling stock on the newly electrified section a confirmatory field test for the proper operation of the protective relays shall be conducted.

(5)

(i) The inspection of the entire section shall be carried out by means of an Over Head Equipment Inspection Car by the Commissioner.

(ii) A responsible officer preferably the Chief Project Manager or the Chief Electrical Engineer (Construction) and a Senior Administrative Grade officer of Electrical Department nominated by the General Manager (open lines) should accompany the Commissioner throughout the inspection.

(iii) The engineers who had been in charge of the section during construction, the Divisional Railway Manager and concerned Divisional Officers should also be present.

(iv) During inspection, particular attention shall be paid to the safety and operational aspects of the train movements and to see that staff are in possession of statutory rule books, instructions books, registers, forms, etc. and the Transportation, Electrical, Permanent Way and Signalling and Telecommunications staff are fully acquainted with the duties to be carried out after A.C traction is introduced.

(6) Subject to the inspection being satisfactory an "all concerned message" may be issued by the Commissioner communicating his sanction for the introduction of commercial services under electric traction.

(7) The signalling and telecommunication requirements in 25 KV 50 Hz AC electrified sections shall be in accordance with the provisions of section 'R' of the Signal Engineering Manual, Part I and Telecommunication Manual for 25 KV 50 Hz AC Traction. Note. - A catechism dealing with the requirements of signalling and Telecommunication installations for 25 KV 50 Hz AC electrified sections are enlisted as Appendices B and C to these rules.