भारत सरकार Government Of India
रेल मंत्रालय Ministry Of Railways
(रेलवे बोर्ड) (Railway Board)

सं. 2014/CEDO/ORI/O/02 **New Delhi, Dated 28.01.2015**

The General Managers,
All Indian Railways.

विषय : The Railways (Opening for Public Carriage of Passengers) (Amendment), Rules, 2005; reg. signature of Officers on CRS Application and its Forms.

संदर्भ : S.W. Railway's letter no. W.347/DL/CN/BNC/AJP-HSD, dated 06.08.14.

1. Vide letter referred above, South Western Railway had requested Board for clarification on matter relating to signing on CRS Application and all its Forms by Railway Officers in accordance with Rule 2(f)(i) of 'The Railways (Opening for Public Carriage of Passengers) (Amendment), Rules, 2005'.

2. The concerning extracts of 'The Railways (Opening for Public Carriage of Passengers) (Amendment), Rules, 2005' are as under :

(i) Rule 2(f)(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".*

(ii) Form no. XV - It is list of questions and answers pertaining to Engineering, Commercial, S&T, Operating, Electrical and Mechanical departments and this Annexure is being signed by respective Chief Engineer (Construction).

(iii) Form XVI - It is the Certificate to be given by General Manager with specific reference of Form-XVII.

(iv) Form XVII - Infringement of Maximum and Minimum dimensions with reference to IRSOD.

3. This practice of signing the above mentioned documents, i.e. Form XV, XVI & XVII by respective Chief Engineer/Construction is continuing since long. CRS, Southern Circle vide his letter no. R.12027/2/2013-SR/470-471, dated 02.7.2014 to S.W. Railway had observed as under w.r.t. Forms XV, XVI and XVII of CRS application :

"Therefore, it is desired that following documents, henceforth be signed by the General Manager -

(1) Reference letter, forwarding opening documents.
(2) Form No. XV, List of Questions and Answers.
(3) Form No. XVI, Certificate to be given by General Manager.
(4) Form No. XVII, Infringement of Maximum and Minimum Dimensions."

4. The matter has been examined in Board and comments with Board's approval on CRS's observation are as under :

(i) Since under Section 28, Chief Engineer (Const.) in-charge of the project has been delegated power on behalf of the General Manager to apply to CRS for opening of the section, the forwarding document of the application should be signed by the Chief Engineer in-charge of the project, as is also being practised.

(ii) Form XV - Since these 'questions and answers' pertain to various departments involved in execution of the project, these need to be signed by JAG officers of the concerned departments and finally by the Chief Engineer in-charge of the project.

(iii) Form XVI - This is the certificate to be given by the General Manager and hence, current practice of signature by all the concerned PHODs and the General Manager of the Railway shall continue.

(iv) Form XVII - It is the list of infringements to maximum and minimum dimensions w.r.t. IRSOD. Therefore, it needs to be signed by the Chief Engineer in-charge of the project.

5. Further, there are many Forms specified to be submitted by the Railway to CRS while applying for opening of the section in terms of Rules 4 & 5 of 'The Railways (Opening For Public Carriage Of Passengers) (Amendment), Rules, 2005'. The formats of these forms have no mention about signatory of the documents and, at times, it also creates confusion on the Railways.

6. It has, therefore, been decided by Board that signatories to various Forms shall be as under :

SL	Form No.	Contents	To Be Signed By
1.	I	Curve Abstract	CE (Const.)
2.	II	Gradient Abstract	CE (Const.)
3.	III	Bridge Abstract	CE (Const.)
4.	IV	Important Bridges - Particulars of Waterway and Construction	CE (Const.)
5.	V	Ballast and Permanent Way	CE (Const.)
6.	VI	Station and Station Sites	CE (Const.)
7.	VII	Station Accommodation	CE (Const.)
8.	VIII	Station Machinery	CSTE (Con.) & CE (Con.)
9.	IX	Level Crossing Abstract	CSTE (Con.) & CE (Con.)
10.	X	Brief Particulars of Traction Installations	CEE (Const.)
11.	XI	Power Supply Installation Abstract	CEE (Const.)

SL	Form No.	Contents	To Be Signed By
12.	XII	Traction Maintenance Depot Abstract	CEE (Const.)
13.	XIII	Restricted Over Head Equipment Clearance Abstract	CEE (Const.)
14.	XIV	Electrical Crossing Over Railway Track Abstract	CEE (Const.)
15.	XV	List of Questions and Answers	JAG officers of the concerned Deptts. and CE (Const.)
16.	XVI	Certificate to be given by General Manager	CE(C), CSTE(C), CEE(C), CAO(C), CCM, COM, CME, CEE, CSTE, PCE and GM
17.	XVII	List of Infringements of Maximum and Minimum Dimensions	CE (Const.)
18.	XVIII	Deflection Tests of Bridges	CE (Const.)

7. This issue with the approval of Board (MT, ML, MM and ME).

Enclosures : Form I to Form XVIII

28.01.15

(आलोक कुमार)
कार्यकारी निदेशक/सिविल इंजीनियरिंग(जी)/रेलवे बोर्ड
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Copy forwarded for information to :

(i) PSO/Sr.PPS to CRB, ME, MT, MM and ML for information of CRB, ME, MT, MM and ML please.

(ii) The Chief Commissioner of Railway Safety, Compound of office of DRM/NER, Ashok Marg, Lucknow - 226001.

(iii) The Commissioners of Railway Safety, All Circles.

(iv) The Director General, RDSO, Manak Nagar, Lucknow.

(v) PCEs, CAOs(C), COMs, CEEs, CSTEs, CMEs and CSOs of all Indian Railways.

(vi) AM/CE, AM/Works, Adv./Project, Adv./Bridges, Adv./Safety, Adv./Signal, EDCE(P), EDCE/B&S-I, EDCE/B&S-II, ED/Works, ED/Proj.Mon., ED/WP, ED/TK(P), ED/TT(S) and ED/TT(M) in Railway Board, New Delhi.

Note : Copy forwarded for information to all above by email. It may also be downloaded from website : www.indianrailways.gov.in -> Railway Board -> Civil Engg. Directorate.

FORM I

[See Rule 5(1)(a)]

CURVE ABSTRACT

Railway : __ Eastern __

Section : ___ Lakshmikantapur – Kulpi _____

Gauge : 1.676 Metre

Length : ___ 9.19 km ___

Degree Of Curvature And Radius	Number Of Each	Length In Kilometre Of Primary Curve
1	*2*	*3*
1. 4.00 Degree (Radius 437.5M)	1	0.49 KM
2. 3.00 Degree (Radius 583.33M)	3	1.13 KM
3. 2.00 Degree (Radius 875M)	2	1.30 KM
Total	6	2.92 KM
Ratio of 'Curved Length' to 'Total Length' of line 31.97%		

Note : 1. The particulars furnished above are only for illustration.

Chief Engineer (Construction)

FORM II

[See Rule 5(1)(b)]

GRADIENT ABSTRACT

Railway : __ Eastern __

Section : ____ Lakshmikantapur - Kulpi _____

Gauge : 1.676 Metre

Length : ____ 9.19 km ____

Gradient (Compensated) and Radius	Number of Each	Length in Km	Percentage to Total Length of Line
1	*2*	*3*	*4*
1 in 100 or 1 percent	-	-	-
1 in 101 to 1 in 150	-	-	-
1 in 151 to 1 in 200	-	-	-
1 in 201 to 1 in 300	1	0.51	5.55 %
1 in 301 to 1 in 400	2	0.64	6.96 %
1 in 401 to 1 in 500	2	1.00	10.88 %
1 in 501 to 1 in 1000	1	1.10	11.97 %
1 in 1001 to Level	9	5.94	64.64 %
TOTAL	**15**	**9.19 Km**	**100.00 %**

- ✓ Steepest Compensated Grade : 1 in 3000 (FALL)
- ✓ Longest Continuous length of steepest Grade : 1 in _____ for __0.51 Km___
  From Km _____ to Km _____
- ✓ Followed by : LEVEL for _____ Km
  From Km _____ to Km _____

Note : *1. The particulars furnished above are only for illustration.*

Chief Engineer (Construction)

FORM III

[See Rule 5(1)(c)]

BRIDGE ABSTRACT

Railway : __ Eastern __

Section : ____ Lakshmikantapur - Kulpi _____ **Gauge** : 1.676 Metre

Length : ____ 9.19 km ____

Class Of Bridge	Clear Span In Metre	Total Number Of Spans	Water Way In Lineal Metre	Loading Standard For Which Designed	Ref. to Type Plan in Case of Girder Bridge
1	*2*	*3*	*4*	*5*	*6*
1. Steel Girder (Riveted)	-	-	-	-	-
2. Steel Girder (Welded)	30.50	2	61.00	M. B. G. Loading	Drawing No. BA-1123 to BA-1124
3. P.S.C. Girder	-	-	-	-	-
4. Composite Girder	-	-	-	-	-
5. RCC/PSC - SLAB/BOX					
(i) R.C.C. Slab	5.00	1	5.00	M. B. G. Loading	
(ii) R.C.C. Slab	3.05	2	6.10	M. B. G. Loading	
(iii) R.C.C. Slab	2.00	9	18.00	M. B. G. Loading	
(iv) R.C.C. Slab	1.83	2	3.06	M. B. G. Loading	
(v) R.C.C. Box	3.05	2	6.10	M. B. G. Loading	
(vi) R.C.C. Box	2.90	3	8.70	M. B. G. Loading	
6. Arches	-	-	-	-	-
7. Total Major Bridges		2	61.00		
8. Total Minor Bridges		19	47.56		
Total		**21**	**108.56**		

Waterway per Km : Major Bridges : 5.64 M
: Minor Bridges : 5.17 M
: Total : 11.81 M

Note : 1. *"Major Bridges" are those, having a total waterway of 18 lineal metres or upwards or having a clear opening of 12 lineal metres or upwards in anyone span.*
2. *The particulars furnished above are only for illustration.*

Chief Engineer (Construction)

FORM IV

[See Rule 5(1)(d)]

IMPORTANT BRIDGES

{Bridges having a total waterway of 300 lineal metres or 1000 sqm or upward}

Railway : __ Eastern __

Section : ___ Lakshmikantapur – Kulpi _____ **Gauge** : 1.676 Metre

Length : ___ 9.19 km ___

Name Of River	Kilometrage	Drainage Area	Rise Of Ordinary Flood Above Low Water (No. Of Each)	Slope Of Bed Per Km	Mean Velocity In Flood Per Second	Sectional Area In Flood
		(Sqm)	*(Metre)*	*(Metre)*	*(Metre)*	*(Sqm)*
1	*2*	*3*	*4*	*5*	*6*	*7*

Discharge Per Second	Span		Height Of Underside Of Girder		Average Depth Of Foundations Below Low Water Level
			Above Low Water	Above Flood Level	
(Cum)	*(Metre)*	*(No.)*	*(Metre)*	*(Metre)*	*(Metre)*
8	*9*	*10*	*11*	*12*	*13*

Chief Engineer (Construction)

FORM V

[See Rule 5(1)(e)]

BALLAST AND PERMANENT WAY

Railway : __ Eastern __

Section : ____ Lakshmikantapur - Kulpi _____ **Gauge** : 1.676 Metre

Length : ____ 9.19 km ____

1. The permanent way consists of 52 Kg / 90 UTS new rails of 'Indigenous Make' 13 metre long (partly on single rails and partly on 3-Rail Welded Panels), laid on concrete sleepers with the density of M+7 (1540 sleepers per km) and 50 mm stone ballast with minimum cushion of 250 mm under the sleepers.

2. All the turnouts to be negotiated by passenger trains are of 1 in 12 (curved switch) elsewhere 1 in 8.5. Certified that Tested and approved P. Way materials have been used in this section.

Note : 1. A brief description to be given of the rails, fastenings, sleepers and ballast provided. Details of dimensions of the rails, fishplates etc. should not be given in case of the standard section. It should be stated whether any of the material is second hand and if so, its approximate age should be given.

2. In the case of new rails and fish plates manufactured in India, the name of the producer should be given. If they are imported, the name of the country of origin should also be indicated.

3. A certificate should also be submitted by the Chief Engineer in-charge that the materials are of tested and approved quality and comply with the accepted specifications.

Chief Engineer (Construction)

FORM VI

[See Rule 5(1)(f)]

STATION AND STATION SITES

-

Railway : __ Eastern __

Section : ____ Lakshmikantapur - Kulpi _____ **Gauge** : 1.676 Metre

Length : ____ 9.19 km ____

Name Of Station	Class {E : Engine Changing X : Crossing F : Flag H : Halt}	Kilometrage From Fixed Point*	Distance Apart (Km)			Clear Length Of Crossing Loop	Remarks
			Sites	Crossing	Engine Changing	*(Metre)*	
1	*2*	*3*	*4*	*5*	*6*	*7*	*8*
Lakshmi-kantapur	X	61.48 (From Sealdah)				686.00 and 700.00	
			5.35				
Udayrampur	H	66.83 km (from Sealdah)					
			3.54				
Kulpi	H	70.67 (from Sealdah)					

* *Note : These should ordinarily agree with the kilometrage figured on kilometre posts and telegraph posts.*

Chief Engineer (Construction)

FORM VII

[See Rule 5(1)(g)]

STATION ACCOMMODATION

Railway : __ Eastern __

Section : ____ Lakshmikantapur - Kulpi _____

Gauge : 1.676 Metre

Length : ____ 9.19 km ____

Name Of Stations	Station Building Area				Goods Shed	Passenger Platforms		Goods Platform Length	Water Supply For Passengers
	Station Offices	Waiting Room	Waiting Hall (2nd Cl.)	Toilets		Length	Height Above Rail		
	(Sqm)	(Sqm)	(Sqm)	(No.)	(Sqm)	(Metre)	(mm)	(Metre)	
1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*
Lakshmik-antapur	50.0	-	50.0		65.0	P1 - 237.74 P2 - 274.40	P1 - 800 P2 - 840	Nil	Hand Pump on both platforms. 300/200 mm. dia Deep Tubewell with 50,000 Gallons Capacity O.H Tank.
Udayrampur	9.30	-	9.30	-	-	213.36 M	840	NIL	One tubewell with hand pump at station
Kulpi	26.10	-	29.67	-	-	275.00	820	NIL	One Hand Pump on Platform

Note : (1) In case existing accommodation is to be utilised, indicate so by (a).

(2) The particulars shown above are only illustrative

Chief Engineer (Construction)

FORM VIII

[See Rule 5(1)(h)]

STATION MACHINERY

Railway : __ Eastern __

Section : ____ Lakshmikantapur - Kulpi _____

Gauge : 1.676 Metre

Length : ____ 9.19 km ____

Names Of Station	INTERLOCKING		SIGNALS						Type Of Block Working In Use	Weigh Bridge No. & Capacity
	Inter-Locked	Non Inter-Locked	Isolated	Warner's Distant	Outers	Home	Starters	Advance Starter		
1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*
Lakshmik-antapur	Yes	-	-	Yes	-	Yes	Yes	Yes	Single line Block Instrument	Nil
Udayrampur	No	Yes	-	-		-	-	-	Halt	Nil
Kulpi	No	Yes	-	-		-	-	-	One Train only Working System	Nil

Note : *The particulars furnished in this form are only illustrative.*

CSTE (Construction)

Chief Engineer (Construction)

FORM IX

[See Rule 5(1)(i)]

LEVEL CROSSING ABSTRACT

Railway : __ Eastern __

Section : ___ Lakshmikantapur – Kulpi _____

Gauge : 1.676 Metre

Length : ___ 9.19 km ___

No. Of Crossing	Location Kilometres	Class As Prescribed In The Permanent Way Manual	Length Of The Guard Rail	Width Of The Gates At Right Angle To The Centre Line Of Road	Distance Of Gate Posts From Centre Line Of Nearest Track	Wicket Gate Provided Or Not	Length Of Straight Portion Of Road Outside Gates	Angle Of Xing Between Gates
1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*

Radius Of Centre Line Of Road On Approaches Within 50M Of The Centre Lines Of Track	Inter-Locking Of Gates With Signals Or Provision Of Telephone Etc. Against Trains Running Through Crossing	Gradient Of Road Way (a) Between Gates, (b) Out-Side Gates	Width Of Metalling Between Gates	Distance Of Gate Lodge From (i) Centre Of The Nearest Track (ii) Edge Of Road Metal	Whether Road Traffic Has Been Warned About The Proximity Of Level Crossing	Provision Of Rumble Strip / Speed Breaker
10	*11*	*12*	*13*	*14*	*15*	*16*

CSTE (Construction) **Chief Engineer (Construction)**

FORM X

[See Rule 5(1)(j)]

BRIEF PARTICULARS OF TRACTION INSTALLATION

Railway : __ Northern __

Section : ___ Tundla - Delhi _____

Gauge : 1.676 Metre

Length : ___ 292 RKM ___

1. Total track kms electrified section : 650

2. Brief particulars of traction system : .....

The type of Over Head Equipment installed on main line of the section is of the simple polygonal with swiveling brackets having tensions in the conductors regulated automatically. Tension in the catenary and contact wire is kept as 1000 kgf each. The contact wire has been given a presage of 103mm for a span of 72m (suitably reduced for smaller spans).

On secondary lines and yards, the Over Head Equipment is of fixed type and unregulated. The contact wire is grooved hard drawn copper with 107 sq. mm cross section supported by means of copper droppers from catenary which is standard (19.21 mm) with 65mm cross section, made up of cadmium copper, having 80% conductivity.

The maximum wind pressure for design of masts and foundation has been taken as 112.5 kg/sqm. Maximum span adopted on main lines is 63 m. The Over Head Equipment has been designed for a maximum speed of 160 km/h.

The power supply is taken from UPSEB at a single point, viz. Aligarh from where Railways own transmission lines are run for feeding the sub stations, located at Hathras, Khurja and Sahibabad. At each of the sub stations two power transformers 12.5 MVA, 132/25 KV are installed, one of them acting as standby.

Standard arrangement of having neutral section 41m in length has been provided between two sub stations for separation of phases. From sectioning and isolating facilities, sub sectioning and paralleling stations have been provided. All the switching operations at power supply stations are remote controlled from a single remote control centre located at Tundla.

Note : The Railway will provide suitable information as per above sample.

Chief Electrical Engineer (Construction)

FORM XI

[See Rule 5(1)(k)]

POWER SUPPLY INSTALLATION ABSTRACT

Railway : __ Eastern __

Section : ___ Lakshmikantapur – Kulpi _____ **Gauge** : 1.676 Metre

Length : ____ 9.19 km ____

SL	Type Of Switching Stations	Total Nos.	Location And Nearest Railway Stations	Remarks
1	*2*	*3*	*4*	*5*
1.	Traction substation and feeding stations	3		
2.	Sectioning and paralleling stations	3		
3.	Sub-sectioning and paralleling stations	14		
4.	Sub-sectioning stations	Nil		
5.	Booster transformer stations	12	*(List to be attached)*	
6.	LT Supply transformer stations	23	*(List to be attached)*	

Chief Electrical Engineer (Construction)

FORM XII

[See Rule 5(1)(l)]

MAINTENANCE DEPOT ABSTRACT

Railway : __ Northern __

Section : ____ Tundla - Delhi _____

Gauge : 1.676 Metre

Length : ____ 292 RKM ____

SL	Location	Name Of Nearest Railway Stations And Distance There From	Whether With OHE Maintenance Car (Tower Wagon Provided Or Not)	Remarks
1	*2*	*3*	*4*	*5*
1.	Km 1370/15-16	Hathras 2.0 kms towards Delhi	Yes	-
2.	Km 1454/7-8	Sakur Basti 1.5 kms towards Delhi	No	-
3.				
4.				

Chief Electrical Engineer (Construction)

FORM XIII

[See Rule 5(1)(m)]

RESTRICTED OHE CLEARANCE ABSTRACT

Railway : __ Northern __

Section : ___ Tundla – Delhi _____

Gauge : 1.676 Metre

Length : ___ 292 RKM ___

A. Over-Line Structures –

SL	Location Of Over-Line Structure	Type Of Structure	Clearance From R.L. To Bottom Of Structure	Height Of Contact Wire Below The Structure	Whether Catenary Is Anohoted Or Freely Running Below/Above The Structure	Minimum Static Clearance Between 25 KV Live Parts & Earth	Remarks
1	*2*	*3*	*4*	*5*	*6*	*7*	*8*
1.							
2.							

B. Locations of OHE Where Specified (2m) Working Clearances Not Available –

SL	Location	Type Of Nearest Earther Part	Actual Distance Between Live Part And Earth	Remarks
1	*2*	*3*	*4*	*5*
1.	Km 1172/3-4 Up line	OHE structure at location 1172/5-6 Dn line	1.85 m	
2.				

Chief Electrical Engineer (Construction)

FORM XIV

[See Rule 5(1)(n)]

ELECTRICAL CROSSING OVER ELECTRIFIED TRACKS ABSTRACT

Railway : __ Northern __

Section : ____ Tundla - Delhi _____ **Gauge** : 1.676 Metre

Length : ____ 292 RKM ____

SL	Location	Brief Tech. Particulars Including Voltage	Whether With Guards Or Without Guards	Owned By	Whether Clearance As Per Regulations For Electrical Crossing Available	Remarks
1	*2*	*3*	*4*	*5*	*6*	*7*
1.	Km 1321/3-4	Three phase single circuit	w/o guards	UPSEB	No.	Relaxation given in terms of Cl.22 of regulation. Height of lowest conductor from rail level is 11.4M
2.	Km 1327/13-14	Double circuit three phase 11KV inside station area	with guards	Aligarh Electric Supply	Yes	

Chief Electrical Engineer (Construction)

FORM XV

[See Rule 5(3)]

LIST OF QUESTIONS AND ANSWERS

Railway : __ Eastern __

Section : ____ Lakshmikantapur - Kulpi _____

Gauge : 1.676 Metre

Length : ____ 9.19 km ____

SL	Questions	Answers
1	*2*	*3*
	Formation Earthwork -	
1.	Are there any sections of the line over which special precautions to ensure safe working are necessary, owing to sharp curves or steep grades?	
2.	What widths of formation have been adopted : (a) In bank (b) In cutting (exclusive of side drains)	
3.	Have any special precautions been taken against slips in cutting and embankments?	
4.	Are side drains to the formation and catch water drains above the side slopes provided for all cuttings?	
5.	Are trolley refuges necessary in any long cuttings and if so, have they been provided at suitable intervals?	
	Tunnels -	
6.	Are there any tunnels not fully lined? If so, are they safe without further lining?	
7.	Do any portions of the sides or roof of any tunnel infringe maximum and minimum dimensions?	
8.	Have adequate facilities been provided to enable workmen to escape from an approaching train without difficulty?	
9.	Have the tunnels been properly ventilated?	

SL	Questions	Answers
1	*2*	*3*
	Bridges -	
10.	Are the bridges/elevated structures designed in accordance with the provisions contained in Bridge Rules, having regard to the standards of loading which they are intended to carry? Full particulars should be appended of any case of departure from the requirements?	
11.	Has due care been taken to provide sufficient waterway to guard against scour?	
12.	Are free board and vertical clearance under bridge provided according to IR Bridge Sub-Structure Code? If not, quote sanction number with date.	
13.	Has due notice been taken of Railway Affecting Works in the catchment of waterways and all necessary safeguards provided for wash-aways and breaches due to breaching of tanks/bunds?	
14.	Have the waterways provided been formally approved by the Local Government?	
15.	Have sufficient head-way been provided for crafts plying or likely to ply, on navigable waters?	
16.	Are there any bridges intended for use by the public? (a) If so, in the case of a road or pathway clear of the track, have adequate handrails or parapets been provided? (b) Or in the case of a passage, common with the track, have suitable gates across the roadway, and signals for trains been provided?	
17.	Are long bridges provided with adequate facilities to enable workmen to stand clear of an approaching train without difficulty?	
18.	Have trolley refuges been provided, if necessary?	
19.	Are the wooden sleepers, adequately protected from fire?	
20.	(a) Are all girder bridges provided with guard rails?	

SL	Questions	Answers
1	*2*	*3*
	(b) Are there any bridges, where it is necessary to provide guard rails, but these are not yet provided?	
21.	Has information of the nature and depth of foundation and hidden works in bridges, culverts and other structures, likely to be exposed to scour, been recorded on the structures themselves?	
22.	Have surplusing arrangements been made for canals crossing the track?	
23.	(a) Have completion drawings of all important bridges and other structures been prepared? (b) Do these contain all information regarding foundations and other hidden works, as actually executed? (c) Where are they recorded?	
	Land Boundaries And Fencing -	
24.	Have the boundaries of the Railway land been properly defined by suitable marks, which can readily be found and identified?	
25.	(a) Have complete and accurate land plans been prepared and do they bear signatures of the responsible Civil and Railway Officer concerned? (b) Where are they recorded?	
	Level Crossings -	
26.	Has the Local Government approved the siting and classification of the level crossings?	
27.	(a) Have all level crossings been constructed in accordance with the Standard Specifications for Level Crossings (vide Chapter IX of IR P.Way Manual) according to the class of crossing? (b) If not, at which crossings and in what respects do they fall short of them?	
	Kilometre And Gradient Posts -	
28.	(a) Are proper Kilometre and Gradient Posts	

SL	Questions	Answers
1	*2*	*3*
	provided? (b) Are the telegraph posts numbered? (c) Can the figures be read with ease from passing trains and trolleys?	
29.	From which fixed point has the Kilometrage been reckoned?	
	Ballast And Permanent Way -	
30.	(a) Is the ballast provided of good quality and sufficient in quantity for the traffic anticipated? (b) Is there any departure from IR P.Way Manual?	
31.	Is the permanent way properly laid, complete with fastenings, and is it suitable for the proposed speed & loads?	
32.	(a) Are there any especially sharp curves at which check rails are considered necessary? (b) Have they been provided at all such curves?	
33.	Are the curves laid out with transition curves at each end?	
34.	(a) Have all curves been adequately super elevated for the speeds in force? (b) Is the super-elevation to be given to each curve indicated at site?	
	Station Facilities -	
35.	Have Maximum and Minimum Dimensions in station yards been observed?	
36.	Has suitable accommodation for passengers been provided at all stations?	
37.	Have latrines been provided on platforms, and are they properly situated, constructed and lighted?	
38.	Are there proper arrangements for supplying drinking water?	
39.	(a) Is foot over bridge or sub-way for crossing the lines provided, where necessary? (b) Are any landings provided? *	

SL	Questions	Answers
1	*2*	*3*
	(c) Are rise and tread of steps properly proportioned? * *If total height of steps exceeds 4.57 metres, it is usually desirable that there should be an intermediate landing not less than 1.22 metres in length.*	
40.	Are the names of stations shown both in Hindi, English and in vernacular language, in large and distinct letters in conspicuous positions so as to be seen readily by passengers in the trains both during day and night?	
41.	Are clocks provided at all block stations?	
	Signalling And Telecommunication / Block Working -	
42.	(a) Have the requirements and recommendations for signalling and interlocking, and the catechism for signalling and interlocking installation vide Chapter VII of these rules, and the appendix thereto, being fully complied with according to the class of signalling and interlocking installed? (b) If not, in what respect do the arrangements provided fall short of them?	
43.	(a) Have the requirements and recommendations for signalling and telecommunication installations in accordance with the instructions issued for the installations of S&T equipment in 25kv / 50Hz electrified sections been complied with? (b) If not, in what respect the arrangements provided fall short of them?	
	Station Working -	
44.	Is provision made, whether by trap points or other means, to prevent vehicles standing on sidings, from fouling any running line?	
45.	(a) Are there any stations situated on a steeper grade than 1 in 400? (b) If so, what special safety devices are adopted and / or special rules enforced at those	

SL	Questions	Answers
1	*2*	*3*
	Stations? *	
46.	(a) What safety sidings are provided? (b) Are they suitable? @ (c) Are any others necessary?	
	Notes : * 1. No station should be constructed nor should any siding join a passenger line on a steeper gradient than 1 in 260, except where it is unavoidable, and then only with the previous sanction of the Railway Board obtained through the Commissioner of Railway Safety, when a slip siding or other arrangements is made, sufficient to prevent accidents. @2. At any station situated in the immediate neighbourhood of an incline steeper than 1 in 80 falling towards the station and 1 in 100 falling away from the station, a catch siding in the former case, and a slip siding in the latter case, should be provided, if necessary, in a suitable position. The take off points to a catch siding or a slip siding should normally be set and locked for the siding, except where required to be trailed through. *"For the purpose of the footnotes marked *1. and @2., the definition of a station yard as given in item 2 of Chapter II of Schedule of Dimensions shall apply".*	
47.	Are station yards, so arranged that shunting past junctions or level crossings may be avoided as far as possible?	
48.	Are shunting necks for goods working provided in large yards, where shunting operations cannot otherwise be carried on without interfering with incoming trains?	
	Rolling Stock -	
49.	Is the following information noted in a conspicuous position on each vehicle? (i) Passenger Carriages - The maximum number of passenger intended to be carried in each compartment of every description of carriage? *	

SL	Questions	Answers
1	*2*	*3*
	(ii) Goods wagons - The tare weight of the empty wagon (including wheels, axles and axle boxes and springs) and the maximum load, in tonnes, which the wagon is constructed to carry?	
50.	Are means for communications between passengers and the guard, provided in all trains carrying passengers? **	
51.	Have all engines and tenders, and all vehicles intended to run on passenger trains been fitted with the vacuum / air brake?	
52.	Are all locomotives and motor coaches provided with : (a) Cattle guards (b) High power headlights (C) Other prescribed safety equipments	
	Note : * This information should be in the vernacular language as well as in English and Hindi. ** Except in the case of complete or partial failure of vacuum, trains carrying passengers may run without such means of communication, only in accordance with general Rule 4.18.	
	Facilities For Booking -	
53.	Are suitable arrangements made at all stations for the booking of passengers?	
54.	Are suitable weighing machines provided at all stations open for goods/parcel booking?	
55.	Are time and fare tables placed in a convenient position for inspection by the public at each station? Are these documents clearly exhibited in Hindi, English and also the vernacular language of the district?	
56.	Is a copy of the General Rules for regulating the working of the railway available for inspection at every station?	
57.	Is every station provided with station diagram, station working orders, coaching and goods tariffs and all other necessary Manuals or instructions,	

SL	Questions	Answers
1	*2*	*3*
	forms and registers for the work of the station ?	
58.	Do the working orders provide suitable for all special conditions met with at each station?	
	Electrical -	
59.	(a) Have the Rules for the Design and Inspection of equipment for Electric Traction (vide Chapter VIII of these rules) been individually and fully complied with? (b) If not, where and in what respect, do the arrangements provided fall short of them ?	
60.	**General -** What provision of Medical First Aid Equipment has been made for use in the event of accident?	

Dy.CSTE Dy.CEE Dy.CCM

Dy.CME Dy.COM Dy.CE/Con

Chief Engineer (Construction)

FORM XVI

[See Rule 5(4)]

CERTIFICATES TO BE GIVEN BY GENERAL MANAGER

Railway : __ Eastern __

Section : ____ Lakshmikantapur - Kulpi _____ **Gauge** : 1.676 Metre

Length : ____ 9.19 km ____

I do hereby certify :

(i) That the Maximum Dimensions for Railways in India have in every case been worked to, with the exceptions detailed in the statement herewith annexed. *

Also, that the Standard Dimensions will be observed in future, and that no work or structure infringing the Standard Dimensions will herewith be permitted without the sanction of the Central Government.

(ii) That each bridge is of such design, dimensions and construction as will enable it to bear the dead load of the structure itself (with flooring, roadway, permanent way etc. complete), and in addition thereto, the equivalents of the live loads specified in the rules prescribing Standards of the Design and Loading for Railway Bridges, without exceeding the maximum permissible stress on the available material in any member or portion of the structure.

(iii) That more than two engines shall not under any circumstances be allowed at one time on the same track of one span of any bridge.

(iv) That every coaching vehicle constructed or procured for the use of the railway in mail and passenger trains is, and shall be provided with vacuum/air brake and effective means of communication between passengers, guard and driver.

Note : This item of certificate is not necessary for those light lines on which the use of vacuum or air brake has not been insisted upon.

(v) That one compartment or such number of berth or seats, as the railway administration may think fit; of a second class carriage of every train carrying passengers shall be reserved for the exclusive use of females.

(vi) That the railway shall be worked on the system known as Absolute Block System in accordance with the regulations prescribed in section Chapter VIII of the General Rules for Railways in India.

* *Note : In the statement showing the cases in which the Maximum and Minimum dimensions have been infringed, full details for each case*

must be given, in the form attached (Form XVII) with explanation of the necessity for such infringements and a reference to the authority under which it was permitted. If there have been no infringements of the Maximum and Minimum Dimensions; the words, "with the exception detailed in the statement herewith annexed", should be omitted or struck out.

(vii) That the electric traction equipment can be used for the public carriage of passengers without danger to the public and that the rules for design and inspection of equipment for electric traction of Chapter VIII of these Rules) have been complied with. #

(vii) That the signaling and telecommunication equipments have been installed in accordance with the approved instructions and they are safe for passing traffic.

(iv) That _____ has been delegated to accompany the Commissioner of Railways Safety on his inspection and all information supplied or engagements entered into by him shall bear my authority.

 # Note : To be included only where applicable.

Sd./__
CSTE(C)

Sd./__
CEE(C)

Sd./__
CE(C)

Sd./__
CAO(C)

Sd./__
CCM

Sd./__
COM

Sd./__
CME

Sd./__
CSTE

Sd./__
CEE

Sd./__
Pr.CE

Sd./__
General Manager

FORM XVII

[See Rule 5(5)]

INFRINGEMENT OF MAXIMUM AND MINIMUM DIMENSIONS

Railway : ___ Eastern ___

Section : ____ Lakshmikantapur - Kulpi _____ **Gauge** : 1.676 Metre

Length : ____ 9.19 km ____

SL	Location		Name Of Structures Which Infringe	Prescribed Maximum & Minimum Dimensions		Existing Actual Dimension	Amount Of Infring-ement	Particulars Of Sanction To Infringement & Remarks
	Division And Section	Kilome-trage		Chapter / Item	Maximum& Minimum			
1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*
1.								
2.								
3.								
4.								
5.								

Chief Engineer (Construction)

FORM XVIII

[See Rule 17(6) and 17(7)]

DEFLECTION TESTS OF BRIDGES

Railway : __ Eastern __

Section : ____ Lakshmikantapur – Kulpi _____

Gauge : 1.676 Metre

Length : ____ 9.19 km ____

Date Of Test : _____

Description of Test Load (Including Engine no.) :

Bridge Number	Kilometrage	Material Of Girders	Clear Span Between Bearing Plates	Overall Depth Of Girders	Speed Of Train
1	*2*	*3*	*4*	*5*	*6*

Test Load EUDL	Deflection (mm)	Design Load EUDL For B.M.	Ratio Of Design Load B.M. To Test Load B.M.	Reduced Defection Under Design Load (For Slow Speed Tests) {Col. 8 x 10}	Theoretical (Calculated) Deflection (Approx.) Under Design Load
7	*8*	*9*	*10*	*11*	*12*

Chief Engineer (Construction)