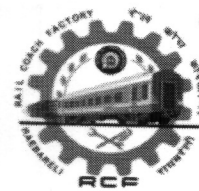




रेल डिब्बा कारखाना, रायबरेली RAIL COACH FACTORY, RAEBARELI



L3T-252

FORM NO: RCF/RBL/QMF 8001
VERSION: 2012-01-01**ROLLING STOCK CERTIFICATE**

Rolling Stock Certificate No.: MCF/RBL/QC/RSC

Date: 24/05/2016

SHELL No.	L	W	A	C	C	N	5	3	0	0	8	1	5	-	1	6	DATE OF DISPATCH	0	4	0	1	2	0	1	6
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RLY	E	R	Type	L	W	A	C	C	N	Coach No.	1	5	1	2	2	/	C	-
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Railway Board's Order No. :

2015/M(C)/142/1 dtd 13.10.2015

1. Tare Weight of Coach : 45.6 Tonnes
2. Carrying Capacity : (a) Seating : 72 (b) Sleeping : 72 (c) Luggage : NIL

3. SHELL LEADING DIMENSIONS:

S NO	DESCRIPTION	DIMENSION (MM)
1.	Maximum length over body	23700
2.	Maximum width over body	3240
3.	Maximum height from Rail Level	4250
4.	CBC height/Buffer height from Rail level 1105 +0/-15	1) 1105(NPPE) 2) 1105(PPE)

4. TRACEABILITY OF SHELL ITEMS:

S NO	ITEM	MAKE/SUPPLIER	SERIAL NO
1.	Buffers	N.A.	
2.	Centre Buffer Coupler	M/s Faiveley	PP END C15010B NPP END M14009B

5. AIRBRAKE TEST REPORT:

S NO	ITEM	DESCRIPTION	SPEC. VALUE	OBSERVED
1.	Full brake application	<ul style="list-style-type: none"> ➤ Reduce pressure of BP from 5.0 to 3.4 kg/cm². ➤ Max. pressure in BC ➤ All Brake are applied 	6 – 10 sec. 3.0 ±0.15 kg/cm ² . OK	8 Sec. 3.0 kg/cm ² OK
2.	Insensitivity	<ul style="list-style-type: none"> ➤ Exhaust BP @ 0.3 kg/cm²/min. 	No brake application	OK
3.	Sensitivity	<ul style="list-style-type: none"> ➤ Exhaust BP @ 0.1 kg/cm²/Sec, after 02 Sec. 	Brake must apply	OK

6. PAINTING DETAILS:

S NO	DESCRIPTION	TYPE OF PAINT	MAKE	AVERAGE GLOSS VALUE
1.	Paint	P.U.	AKZO NOBEL	93/91
2.	Insulation		Satisfactory	



आधुनिक रेल डिब्बा कारखाना रायबरेली
MODERN COACH FACTORY RAEBARELI



FORM NO: RCF/RBL/QMF 8001
VERSION: 2012-01-01

ROLLING STOCK CERTIFICATE

Rolling Stock Certificate No.: RCF/RBL/QC/RSC

Date: 25/04/2016

SHELL No.	R	B	L	-	5	3	0	0	8	-	2	0	1	5	-	1	6	DATE OF DISPATCH	0	4	/	0	1	/	1	6
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RLY	E	R		Type	L	W	A	C	C	N		Coach No.	1	5	1	2	2	/	C						
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8. DETAIL OF BOGIES :

ITEMS	PP Side				NPP Side			
Bogie No	150197 (MCF/RBL)				150198 (MCF/RBL)			
Bogie Type	FIAT				FIAT			
Frame no.	VS/RBL-07				VS/RBL-15			
Bolster no.	RBL-184				RBL-197			
Axle No	CHT 13 126859		CHT 13 126202		CHT 13 125721		CHT 13 130163	
Wheel Dia	915.586	915.577	915.603	915.575	915.612	915.567	915.607	915.558
Wheel Disc No	6225-00139 15VR	6196-00099 15VR	6228-00039 15VR	6225-00165 15VR	6219-00132 15VR	6198-00044 15VR	06145-00052 15VR	6196-00142 15VR
R.B. Nos.	12-14-22048	10-14-16772	12-14-22037	02-15-30887	12 14 01222	02 15 30890	12 14 22032	02 15 31226
CT R B Make	SKF		SKF		SKF		SKF	

9. SECONDARY SUSPENSION LOAD DEFLECTION VALUES

DESCRIPTION	Bogie PP side				Bogie NPP side			
	Secondary 1		Secondary 2		Secondary 1		Secondary 2	
	Outer	Inner	Outer	Inner	Outer	Inner	Outer	Inner
Make & Nos.	CMFSK 0715-8836-169	RSK 391	CMFSK 0715-8836-169	RSK 382	CMFSK 0715-8836-169	RSK 596	CMFSK 0715-8836-169	RSK 566
Compressed Ht. at Tested Load	512	464	510	466	514	468	514.5	467
Alignment deviation (mm)	9	46	10	44	8	38	8	39

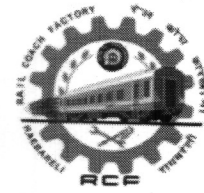
10. TRACEABILITY OF BOGIE ITEMS:

S. NO	ITEM	SERIAL NO.		MAKE
		PP SIDE	NPP SIDE	
1.	Primary outer Spring	03 R 95-3971-2891, 03 R 94-0138-2891, 03 R 94-3128-2891, 03 R 95-0098-2891	03 R 95-8916-2891, 03 R 16-0265-2891, 03 R 96-0087-2891, 03 R 95-0128-2891	RSK
2.	Primary Inner Spring	CMGBD 10 15 143-64 (4,28,79,80)	CMGBD 10 15 143-64 (52,61,47,89)	CMGBD
3.	Primary Damper	KW/14-2015-301530049	KW/14-2014-301530049	GEREP
4.	Secondary Damper	14-2015 (5785,5951)	2015-14(5954,5870)	KONI
5.	Lateral Damper	11-2015-3266	11-2015-3659	KONI
6.	Brake Cylinder	361 K 29,431 K 29,453 K 29,362 K 29	374 K 29,433 K 29,434 K 29,375 K 29	KBI
7.	Brake Caliper	355-29,424-29,448-29,356-29	370-29,429-29,428-29,369-29	KBI
8.	Brake Disc	24057864 0002 20/15, 24057864 0018 20/15, 24056185 0020 19/15, 24056185 0016 19/15	24057937 0012 22/15, 24057937 0006 22/15, 24057937 0009 22/15, 24057937 0011 22/15	KBI
9.	Ball Joint Control Arm			GMT
10.	Lateral Bump Stop			GMT
11.	Traction Centre make			EMSON
12.	Traction lever make			SARITA
13.	Ball joint traction lever			GMT
14.	Ball joint traction centre			GMT
15.	Secondary Rubber Pad			TECSPAK
16.	Rubber Spring			GMT
17.	Anti roll bar make			EMSON
18.	Roll Link make			SARITA, GMT
19.	Fork make			SARITA

Regd. SSI/RCF/RSC



रेल डिब्बा कारखाना, रायबरेली RAIL COACH FACTORY, RAEBARELI



FORM NO: RCF/RBL/QMF 8001
VERSION: 2012-01-01

ROLLING STOCK CERTIFICATE

Rolling Stock Certificate No.: MCF/RBL/QC/RSC

Date: 24/05/2016

SHELL No.	L	W	A	C	C	N	5	3	0	0	8	1	5	-	1	6	DATE OF DISPATCH	0	4	0	1	2	0	1	6
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RLY	E	R	Type	L	W	A	C	C	N	Coach No.	1	5	1	2	2	/	C	-
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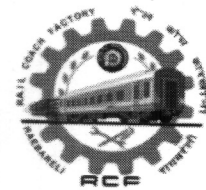
11. TRACEABILITY OF FURNISHING ITEMS:

S NO	ITEM	MAKE/SUPPLIER	SERIAL NO
1.	Air Brake Module	M/s KBI, Faridabad, New Delhi	15C0964
2.	Pull box	M/s KBI, Faridabad, New Delhi	
3.	DV	M/s KBI, Faridabad, New Delhi	2014M1506
4.	PVC	M/s Responsive Industries, Mumbai	
5.	UIC Vestibule (PPE)	M/s Elastomer Lining Works, Thane	
6.	UIC Vestibule (NPPE)	M/s Elastomer Lining Works, Thane	
7.	Foot Step	M/s Super Spark Pvt. Ltd. Faridabad	
8.	Decoupling arrangement	M/s SECO Industries, Mumbai	
9.	Body Side Window	M/s Rail Tech, Kapurthala	
10.	Emergency Window	M/s Rail Tech, Kapurthala	
11.	Lavatory Window	M/s Rail Tech, Kapurthala	
12.	Roof Ceiling	M/s KAE Sataraganj Pvt. Ltd. ESIPL U.K.	
13.	Non-AC Area Ceiling	M/s Gandhi Enterprises, Jalandhar	
14.	Supply Air Duct	M/s Amirchand Engg. Works, Jalandhar	
15.	Body Side Doors	M/s Kalsi Ludhiana	
16.	Compartment Door (PPE)	M/s Rail Tech, Kapurthala	
17.	Compartment Door (NPPE)	M/s Rail Tech, Kapurthala	
18.	Vestibule Door(PPE)	M/s Kalsi Ludhiana	
19.	Vestibule Door(NPPE)	M/s Kalsi Ludhiana	
20.	CDTS	M/s Darshan Enterprises, New Delhi	
21.	Auxiliary Water Tank	M/s Shivalik Fastener Mohali PB	
22.	Under Slung Water Tank(450 L)	M/s Shivalik Fastener Mohali PB	
23.	Under Slung Water Tank(2X685L)	M/s Shivalik Fastener Mohali PB	
24.	Flexible Faucet	M/s Hindustan Fibre Ltd. Vadodra (Gujrat)	
25.	Lotah Filler Tap	M/s Metco Delhi	
26.	Lavatory Modoules	M/s Hindustan Fibre Ltd. Vadodra (Gujrat)	
27.	Lavatory Doors	M/s Hindustan Fibre Ltd. Vadodra (Gujrat)	
28.	Waste Bin Arrangement	M/s Hindustan Fibre Ltd. Vadodra (Gujrat)	
29.	Fire Extinguisher	M/s Fire fox	NPP1369, PP 232
30.	Side Wall panel	M/s KAE Sataraganj U.K.	
31.	Seat & Berth	M/s Oriental Veneer Products Ltd. Mumbai	
32.	Light Luggage Rack	M/s Verendra Steel Enterprises Chandigarh	
33.	Snack Table	M/s Anjani Technology Noida	
34.	Yaw Damper	M/s KONI M/s KONI Supplier- M/s Pan India Consultant Pvt.Ltd 105 Phase -IVUdyog Vihar, Gurgaon-122015 Haryana	NPP-72596,72619 PP -72848,71056





रेल डिब्बा कारखाना, रायबरेली RAIL COACH FACTORY, RAEBARELI



FORM NO: RCF/RBL/QMF 8001
VERSION: 2012-01-01

ROLLING STOCK CERTIFICATE

Rolling Stock Certificate No.: MCF/RBL/QC/RSC

Date: 24/05/2016

SHELL No.	L	W	A	C	C	N	5	3	0	0	8	1	5	-	1	6	DATE OF DISPATCH	0	4	0	1	2	0	1	6
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RLY	E	R	Type	L	W	A	C	C	N	Coach No.	1	5	1	2	2	/	C	-
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12. MODIFICATION (IF ANY) : NIL

13. DEVIATION (IF ANY) : NIL

14. ITEM FITTED ON THE COACH ON TRIAL : NIL

S NO	ITEM PARTICULARS	PURPOSE	REPORT	REFERENCE & PERIOD OF TRIAL
			Frequency	

15. WARRANTY:

S NO	COMPONENTS	WARRANTY
1	Brake blocks, wheels, push gravity cocks, flushing valves, moldings, window glasses, mirrors, roller blinds, curtain & bulbs etc. (items which are consumable in nature)	NIL
2	Other coach furnishing sub assemblies(bought out items)	24 months date of dispatch of coach or 30 months from date of supply of material whichever is earlier.

NOTE:

- This warranty covers free supply of parts which wear out and fails within warranty period of normal service.
- This doesn't covers faults arising out of accident, non standard maintenance practices, abnormal use or mishandling, vandal activity, arson & deficient/pilferage etc.
- This doesn't cover any consequential liabilities or damages/loss incurred by anybody; furthermore, it shall in no case extend to repayment, return of the coach or replacement of complete coach.
- Whether a defective part is to be replaced or repaired shall be at the discretion of RCF/RBL.
- For any complain/ suggestion please mail at qualityrcfbl@gmail.com

उप-निर्देशक/कनि. डी.एम.ए.
DY CME
रेल कोच फैक्ट्री / रायबरेली / लालगंज
RCF / RBL / LLJ

सहायक यंत्रिक अभियन्ता/ गुणवत्ता
Asst. Mechanical Engineer/ Quality
रेल डिब्बा कारखाना, लालगंज, रायबरेली
Rail Coach Factory, Lalganj, Raebareli



Date: 21.08.2015



EMPRISE Marketing

B-1/31, Sector H, Aliganj
Lucknow - 226 024 (India)
Tel.: (0522) 3208468, 3221900
Tele Fax : (0522) 4017682
E-mail : emprisemarketing@hotmail.com

DY CME/Fur
RAIL COACH FACTORY
LALGANJ
RAEBARELI

See/Paint
रजत कुमार/रजत/रजत
DY CME/FURNISHING
रेल कोच फैक्ट्री / रायबरेली / लालगंज
RBL/LLJ

Contract Agreement no: M-200/EXT.PTG/14-16/0007 DATE 22.06.2015

WARRANTY CERTIFICATE NO:EMP/AUG/2015

This is to certify that POLYURETHANE PAINTING work done under your contract no: M-200/EXT.PTG/14-16/0007 date 22.06.2015 has been completed on:

SL	COACH TYPE	RCF/RBL Furnishing no	Completion date	Coach Number	Railways
1.	LWACCN-53008 ✓	L3T-252	21.08.2015	15122/C ✓	ER

The Pu Painting work done on each coach shall be warranted for a period of 03 years from the date of completion of the work for the coaches for gloss retention/color retention & adherence properties as per RDSO specification: M&C/PCN/100/2013. If any imperfection is noticed or any defect arise during the warranty period due to improper material used or due to bad workmanship EMPRISE MARKETING shall be bound to set right the defect/imperfection on free of cost basis.

For: EMPRISE MARKETING

Dimlesh
(Authorised Signatory)



AUTHORISED DISTRIBUTORS :
INDUSTRIAL BUSINESS
RAIL TRANSPORTATION
COMMERCIAL CARE





Govt. of India- Ministry of Railways
(RAIL COACH FACTORY-RAEBARELI)



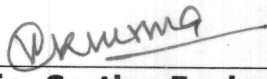
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VER. 10.08.2015
PAGE 1 OF 5

FOR ELECTRICAL ITEMS

ROLLING STOCK CERTIFICATE OF LHB/EOG AC COACHES

ELECTRICAL TEST CERTIFICATE FOR LHB/EOG AC COACHES

TYPE COACH	LWACCN	SHELL/COACH NO	15122/C	
RAILWAY	ER	DATE OF DESPATCH		
Sr no	Description of tests		Remarks	
1.0	REFERENCE SPECIFICATION : L 446			
1.1	AIR CONDITIONING TEST : ELPS/TP/AC 01.			
1.2	CODE OF PRACTICE OF WIRING : ELPS/SPEC/EOG/AC-01			
2.0	INSULATION RESISTANCE : Setting of insulation monitoring relay at 30K ohms as per TD 111 of M/s LHB.			
	Observed status : HEALTHY			
3.0	AIR DELIVERY MEASUREMENT	OBSERVED VALUE	OK	
3.1	Fresh Air	29.70 Cub mtr/min	OK	
3.2	Return Air	74.93 Cub mtr/min	OK	
3.3	Exhaust Air	7.81 Cub mtr/min	OK	
3.4	Conditioned Air	192.57 Cub mtr/min	OK	
4.0	PRE COOLING TEST: Max 01 hr. Time taken to pre cool from 45 deg centigrade to 24/22 deg C during OFF LOAD condition PP Side : 21.9°C NPP Side : 22.1°C		OK	
5.0	PULL DOWN TEST: Max 02 hrs. Time taken to pull down from 45 deg C to 24/22 deg C during FULL LOAD condition. Not done		OK	


Senior Section Engineer
Quality control / Electrical
RCF, Raebareli



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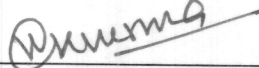
RCF/RBL/QEF8001
VER. 10.08.2015
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FOR ELECTRICAL ITEMS

ROLLING STOCK CERTIFICATE OF LHB/EOG AC COACHES

ELECTRICAL TEST CERTIFICATE FOR LHB EOG AC COACHES

Sr no	Description of test	Remarks
6.0	HUMIDITY CONTROL	OK
7.0	PUMP EQUIPMENTS	OK
8.0	WORKING OF EXHAUST FANS OVER LAVATORIES	OK
9.0	WORKING OF COMPOSITE PANTRY	OK
10.0	COMPARTMENT LIGHT	OK
11.0	PUBLIC ADDRESSING SYSTEM (PAS)	OK
12.0	WHEEL SLIDE PROTECTION SYSTEM (WSP)	OK
13.0	WORKING OF 60KVA TRANSFORMER	OK
14.0	WORKING OF REGULATED BATTERY CHARGER	OK
15.0	WORKING OF EMERGENCY BATTERY CHARGER	OK
16.0	SAFETY ITEMS	OK
16.1	THERMOSTAT :	OK
16.2	ROTARY 07 SET POINTS (NORMAL CONDITION)	OK
16.3	MID SET POINTS (SENSORS FAILED CONDITIONS)	OK
16.4	HYGROSTAT	OK
16.5	CONTROL CIRCUIT	OK
16.6	POWER CIRCUIT	OK
17.0	REFRIGERANT USED R 407C	OK


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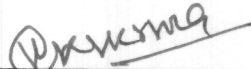


RCF/RBL/QEF8001
VER. 10.08.2015

PAGE
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ROLLING STOCK CERTIFICATE OF LHB/EOG AC COACHES

Sr no	Description	Drg/Spec no.	Quantity per Coach
01.	Roof mounted AC package unit for LHB AC coaches Make : INTEC Sr no of RMPU 1 (NPP side): 15-J-386 Sr no of RMPU 2(PP side) : 15-J-381 Sr no of Microprocessor: 15.09.145/SDWL	As per rdso/pe/spes/ac/0061/rev -1/2005	02
02.	Switch board cabinet Make : ISG Sr no : 15.07.0043	As per spec no . EDTS073,REV-D,AM-6	01
03.	Pump equipment with PLC controller & pump box Make : KALSI Sr no PA-NIL Sr no.1- 251767/10/2014 Sr no.2- 251768/10/2014 Sr no.CPA- 4179/10/2014	As per spec EDTS 186,Rev-a, Am- 2	01
04.	Double inlet centrifugal blower 415V/03Ph /50Hz /120W/450 cum mtr/hr discharge for exhausting air from lavatory & switch board cabinet Make : INTEG	EDTS331, TYPE-1 CORR.-1&2	02
05.	Vestibule Light Fitting Single	LW 76004,Alt-b	07
06.	Ceiling light fitting DOUBLE w/o diffuser.	LW 76011,Alt -c	09
07.	Ceiling light fitting with NL w/o diffuser w/o item 2&3	LW 76013,Alt -c	09
08.	Emergency light system for EOG type coaches (AEL)	EDTS 151,Rev -c Am-1 & 2	04
09.	Lavatory light fitting assly	LW 76001,Alt nil	04
10.	WC gauge signal light	LW 76006,Alt-c	02


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Quality control / Electrical
RCF, Raebareli



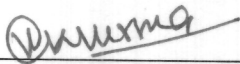
Govt. of India- Ministry of Railways
(RAIL COACH FACTORY-RAEBARELI)



RCF/RBL/QEF8001
VER. 10.08.2015
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ROLLING STOCK CERTIFICATE OF LHB/EOG AC COACHES

Sr no	Description	Drg/Spec no.	Quantity per Coach
11.	Passenger alarm coach indication light	LW 76005,Alt-e	02
12.	Fluorescent lamp 18W	RDSO/PE/SPEC/D/TL 0011-2000,Rev I, Sec-I , 07/2001	34
13.	Diffuser complete w/o item 1& 2.	LW 76012,Alt-a	25
14.	Razor socket for WC 110/240V.	EDML 047 ,Rev nil	04
15.	Terminal strip	EDML 034,Rev-a	01
16.	Terminal connector	EDML 037,Rev`a`	04
17.	Single switch 06A/250V/AC ONE WAY ,complete with steel plate & cover frame	EDML 047,Rev- C, Item 1.	09
18.	Single switch 06A/250V/AC ONE WAY complete with steel plate & cover frame	EDML 047,Rev-A, Item 2.	09
19.	Provision of switch socket combined 5PIN (06A, 250V AC) along with 1A glass fuse fitted powder coated steel plate & cover	As per cat no EL-243 (EL signature series) of M/s SSK	09
20.	PA system for LHB coaches Make :AHUJA	EDTS 173,Rev- a Am- 1,2&3	01 set
21.	70AH/110V,54 Cells,02V each ,maintenance free pure lead acid tin monoblock ,battery set with 09 modules 12V each. , factory pre charged. Make :HBL Lug date :04/2015	EDTS 129,Rev nil	01 set
22.	Battery box for LHB coaches.	1 10113 0 76 700 005 w/o item 5, 22, 23, 26 & 27.	01


Senior Section Engineer
Quality control / Electrical
RCF, Raebareli



**Govt. of India- Ministry of Railways
(RAIL COACH FACTORY-RAEBARELI)**



RCF/RBL/QEF8001
VER. 10.08.2015
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ROLLING STOCK CERTIFICATE OF LHB/EOG AC COACHES

Sr no	Description	Drg/Spec no.	Quantity per Coach
23.	Battery fuse box +ve Make : NEC	As per LW 71001,Alt-F	01
24.	Battery fuse box -ve Make : NEC	As per LW 71002,Alt-F	01
25.	Regulated battery charger Make : HIREL Sr no : 15050284	As per RDSO/pe/spec/ac/0129, Rev.-1 (2009)	01
26.	Emergency battery charger Make : BHASIN Sr no : 05140623	EDTS 163,Rev `c` corg.-2&3	01
27.	60KVA transformer Make : PANTRONICS Sr no : PAN-14011974	As per rdso/pe/spec/ac/0080/rev -0 (2007)/Am-1&2/Corr. 1,2&3	01
28.	ZS coupling 400A/750V/03Ph/50hz. Make : MAA LAXMI INDUSTRIES	As per spec No EDTS 105,Rev `e` Am-2	02 sets
29.	Feeder junction boxes. Make : MAA LAXMI INDUSTRIES	EDML 020,Rev-I	02
30.	Wheel set earthling equipment. Make : CHANDA & CHANDA	EDTS101,REV-C,AM-1	02
31.	Wheel Slide Protection System (WSP) Make : KNORR & Sr no : 0114341357	M/s : KNORR	01 set
32.	PANTRY EQUIPMENTS : Hot Case & Bottle cooler cum deep freezer Make : SUPER REFRIGRATION	As per spec no EDTS 139, Rev- E , Sec II.	01

SSE/EL/QC	DyCEE(P)/RCF/RBL

विद्युत उत्पादन-गुणवत्ता
रेल कोच फैक्टरी / लालगंज / रायबरेली
Sr. Section Engineer
Electric Production - Quality
RCF / RBL / LLJ

उप मुख्य विद्युत अभियंता (उत्पादन)
रेल कोच फैक्टरी-रायबरेली, लालगंज
DY.CEE/P-RCF/RBL/LLJ