



ELECTRICAL (TRD) PRAYAGRAJ DIVISION



Jurisdiction of OHE & PSI depots of PRYJ div. where both depots are at same stn.

SN	OHE Depots	From		To		PSI Depots	From	To
1	MZP	PRE/W	720/23-24 (Excl)	JIA/W	763/3-4(Incl)	MZP	BH-k	UND Stn
2	FTP	SNIE/W	915/17-18 (Excl)	KBN/E	984/19-20 (Incl)	FTP	LSC - 32 ASCE/W	AUNG
3	CNB	KBN/E	984/19-20 (Excl)	PNK/E	1027/23-24 (Incl)	CNB	KBN/SSP	PNK/TSS
4	RRH	PNK/E	1027/23-24 (Excl)	JJK/W	1081/27-28(Excl)	RRH	PNK Stn	JJK Stn
5	PHD	JJK/W	1081/27-28(Incl)	BNT/W	1137/25-26 (Incl)	PHD	JJK/SP	LSC-80 SHW/W
6	ETW	BNT/W	1137/25-26 (Excl)	KAA/W	1202/11-12(Excl)	ETW	LSC-79 BNT/E	LSC-62 BDN/E
7	TDL	KAA/W	1202/11-12(Incl)	BRN/E	1262/5-6 (Incl)	TDL	MNR Stn	CMR/SP
8	HRS	BRN/E	1262/5-6 (Excl)	MXK/W	1313/1-2 (Incl)	HRS	LSC-42 JLS/E	DAQ/Stn

Jurisdiction of OHE & PSI depots of PRYJ div. where both depots are at same stn.

SN	OHE Depots	From		To		PSI Depots	From	To
9	ALJN	ALJN/W	1328/31A (Incl)	SOM/W	1349/7-8, 7A (Incl)	ALJN	LSC-30 ALJN/E	SOM Stn
10	KRJ	SOM/W	1349/7-8, 7A (Excl)	WIR/W	1388/27- 28, 27A (Incl)	KRJ	LSC-20 SOM/W	LSC-10 WIR/W
11	DER	WIR/W	1388/27- 28, 27A (Excl)	CPYZ/W	1428/13- 14, 13A (Incl)	DER	LSC-9 DKDE/E	CPYZ
12	SRJ	Link Jn/E	1345/35- 36 (Incl)	MJHR/W	1300/1-2 (Incl)	SRJ	JSR	MKP
13	SBDP	CPU (W)	143/4	CAR (E)	242/44	SBDP	BH-R	CPU/SP

Jurisdiction of OHE & PSI depots of PRYJ div. where both are at different stations

SN	OHE Depots	From		To		PSI Depots	From	To
1	CAR	BH-“K” /E	676/27-30 (Incl)	PRE/W	720/23-24 (Incl)	NYN	LSC -11 UND/W	YB East
2	MJA	JIA/W	763/3-4 (Excl)	COI/E	815/13-14 (Incl)			IDGJ/SSP
3	SFG	COI/E	815/13-14 (Excl)	SYWN/W	847/31-32 (Incl)	ALD	YB West	ASCE Stn
		Link Jn/E	1345/35-36 (Incl)					
4	SRO	SYWN/W	847/31-32 (Excl)	SNIE/W	915/17-18 (Incl)	SKB	BDN Stn	MNR/SSP
5	MKP	MJHR/W	1300/1-2 (Excl)	MKP/W	1254/15-16 (Incl)			



Details of GSS, TSS & Feeding posts of PRYJ div.

SN	Name of GSS	Name of TSS
1	NYN (220/132 KV GSS)	NYN
2		MRE
3		SRO
4		RUB
5		MWH
6	PHD (220/132 KV GSS)	SSL
7		PNK
8		RRH
9		PHD
10		BNT
11		ETW
12		BDN
13		SKB



Details of GSS, TSS & Feeding posts of PRYJ div.

S N	Name of GSS	Name of TSS
14	DER (220/132 KV GSS)	MTI
15		HRS
16		MWUE
17		KRJ
18		DKDE



Details of GSS, TSS & Feeding posts of PRYJ div.

SN	Name of UPPCL sub stations	Name of TSS
1	Narayanpur/GSS	JEP
2	Pathraiya/GSS	MZP
3	Naini Complex/GSS	BEP
4	Shankargarh/GSS	SRJ
5	Simaur/GSS	DBR
SN	Name of UPPCL sub stations	Name of FP
1	Chunar/GSS	CAR
2	Jigna/GSS	JIA



Details of electrified TKM/RKM of PRYJ div. as on 01.04.2020

Total RKM	980.52
Total TKM	2732.197



Sections under electrification

SN	Section	RKM	TKM	Project
1	Shikohabad-Farrukhabad including Mainpuri-Eatawah	156	189	RE/LKO
2	Barhan-Etah	59	62	Dy.CEE/C/ CNB

Electrification recently completed by RE

SN	Section	RKM	TKM	Executed by	CRS authorization
1	ACOI-SRJ	39	98	RE/JBP	24.03.17
2	SRJ-MKP	55	118	RE/JBP	04.06.18
3	CAR-CUK	80.758	96.604	RE/DNR	13.09.2019
4	CUK-CPU	19.306	22.080	RE/DNR	07.12.2019



Major highlights of TRD in 2020-21

1. Expenditure saving due to open access.

Rs 192.35 have been saved in 2020-21 till January 2021 by availing traction energy through open access.

2. OHE works related to 160 KMPH

In major task of Mission Raftar project of Ministry of Railways, TRD department, Prayagraj took an initiative to start some works departmentally whose progress is as follows :

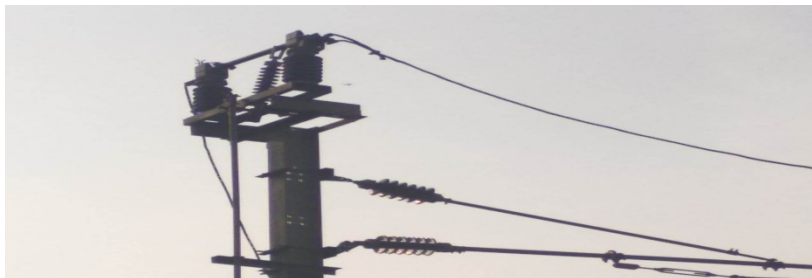
- a) Out of 3275 ATDs whose balance weight is supposed to be increased, department has already increased in 325 no ATDs
- b) Out of targeted 1659 TKM of dropper work, 240.5 TKM completed
- c) Out of 900 turnout/crossovers to be adjusted, 570 have already been adjusted

3. Electrification of existing line no. 1, 2, 9, 10 of Harduaganj yard & private siding of M/s Ultratech Cement Ltd., taking off from Harduaganj station of Aligarh-Harduaganj section has been done , total TKM: 8.13
Hot axle siding at UND station (230 meters) has also been electrified .



4. Replacement of over aged 25 kV Isolators

155 nos. over aged 25 kV isolators of 600 A capacity have been replaced by new isolators having capacity of 1250 A. This will enhance reliability of isolators.



5. Replacement of rusty OHE cantilevers, overage and broken insulators

During adverse condition of pandemic Covid-19, department took advantage of increased power block availability, 3457 overage insulators, 909 rusty cantilevers and 1315 flashed and broken insulators have been replaced.

6. Replacement of rusty anti creep wire

Rusty anti creep wire has been replaced by new wire at 130 locations during current financial year. This will prevent breakdown due to breaking of rusty anti creep wire.

7. Relocation of critical mast Implantation

24 no critical location masts having implantation less than 2.36 m have been relocated. This will prevent mast hitting cases.

8. Modification of 1 span of 132 kV transmission line

One span of 132 KV Overhead transmission line between Dadri - Sahibabad of was replaced by underground EHV cables as it was infringing Delhi-Meerut RRTS Corridor of NCRTC. It was very difficult to complete this work in normal working days due to very high traffic density on NDLS-HWH rail route owing to Sahibabad TSS being already overloaded. Because of this, work was planned in lockdown period on 02.05.2020 .



9. Packing saddle has been provided at single cantilever

764 nos. packing saddles have been provided in single OHE cantilevers to as per RDSO SMI no. 0059 to prevent breaking of catenary strands inside suspension clamp. This will prevent cases of catenary wire breakage due to cutting of strands. .

10. Replacement of winch type ATD in to 3:1 pulley type ATD

14 nos. old winch type ATDs have been replaced by 3:1 ratio modified pulley type ATDs. With this, PRYJ division has achieved the task of 100% conversion from old winch type ATD to new 3 pulley type ATD. 3 pulley type ATDs are more reliable during winter season and don't get easily jammed



11. Replacement of over age Lightning arrester (LA)

44 no. 25 kV LA's have been replaced at BRE/SP, SYWN/SSP, SSL/TSS, KBN/SSP & CHK/SSP. BMU/SP, MRE/TSS, PRYJ/SSP & SKB/TSS. This will improve reliability of operation.

12. Provision of new earthing heal isolator & section insulator

01 no. isolator & 01 no. section insulator have been provided in line no 14 of CAR yard for making line suitable for loading & unloading purpose.



13. New Isolator & Section Insulator provided in all 07 lines at PRYJ trip shed. This will enable roof checking of loco even if they are standing in the line outside the trip shed.



14. 02 nos. new Isolator & 02 nos. Section insulator have provided at PCOI Yard. This will enable better sectioning and segregation of OHE faults.

15. TR-Line modification work

TR-Line modification work due to NHAI between Narainpur – Jeonathpur completed. Tower no. 2, 3 & 4 are relocated to increase the height of conductors between tower no. 3 & 4 crossing NHAI.



16. OHE modification work due to construction of ROB

OHE modification work has been completed in connection with construction of ROB in lieu of LC-62 (MNR-FZD) , LC-12,14,15,16,18 (PTX-BNT), SAMHO station.

17. Provision of retro reflective number plates.

3711 number retro-reflective number plates have been provided in PCOI-MKP section on OHE masts. Number plates have also been provided on Drop arms (DA) of OHE portals and TTCs in PCOI-MKP section and CAR-CPU section.

18. LA disconnecter provided in 42 kV LA 22 nos. by TRD construction department. This will isolate defective LA from the system and healthy section will remain charged.

19. Provision of contact in place of catenary wire under FOB-ROB

Contact wire has been provided in place of catenary wire under FOB-14 nos., ROB –14 nos. This will prevent parting of catenary wire in case some foreign material falls from ROB/FOB on OHE.

20. Replacement of over aged battery set

Total 18 nos. battery sets at following switching stations have been replaced thereby increasing reliability of equipment operation

SN	Capacity of battery set	Post
1	40 AH	SYWN/SSP, TDL/SSP/W, ARW/SP, KAA/SP, SJT/SSP, BMU/SP, JGR/SP, FZD/SP, PRA/SSP, BKO/SP, BPU/SSP, MNR/SSP
2	150 AH	PHD/GSS
3	180AH	PHD/GSS
4	200 AH	BNT/TSS, RUB/TSS
5	300 AH	PHD/GSS, NYN/GSS

21. Overage LV Circuit breaker no-29 at SKB/TSS replaced by Construction department.



22. NI Work –

- NI work has been completed at CNB station. All 10 masts including 03 Gantry masts causing infringement in laying of track have been removed. OHE wiring of all 04 no. crossovers have been completed..
- Wiring of 3rd line at Bhaupur yard & wiring of 02 nos cross over has been completed.

23. DFCCIL related works

- Linking of DFC track with IR track completed at BPU and BPU-KRJ DFC route opened for train operation.
- Linking of IR track has been completed with DFCCIL track at DAQ station and is in progress at RXM.
- 132 kV Transmission line modification work under progress at JGR.
- Detour of 132 KV transmission line between tower no. 100 to 106 completed in connection with construction of ROB at LC-67 infringing DFC track.
- Upright erection at JEP due to DFCCIL Infringement = 16 nos.
- Boom erection at JEP due to DFCCIL infringement = 08 nos.
- 132 kV TR-Line underground modification work under progress at Bhadan.
- 25 kV OHE Modification work under progress at Ekdil.

Protective measures taken against COVID-19

- Regular counselling of staffs has been done for maintaining social distancing during work and to use PPE mainly face mask mandatorily during work.
- Disinfection of depot, store, tower wagon, control rooms & offices are being done daily by sodium hypochlorite solution and disinfection of T&P is also being done by soap solution/sodium hypochlorite which is procured by depots through local imprest.
- Total 4500 face masks, 1140 ltrs. of sanitizer, 4000 nos. soaps, 100 ltrs. liquid soaps, 200 nos. washable hand cotton gloves have been distributed among staff of all OHE and PSI depots, workshops, control offices and other TRD offices.
- Foot operated hand sanitizer dispenser & foot operated hand wash machines are being provided in all 18 OHE depots & 15 PSI depots of TRD department.
- 20 no. non contactless thermal guns are distributed amongst staff for thermal scanning of staffs on daily basis.

- Aarogya setu App has been installed by 835 staffs and 517 family members till 01.06.2020.
- Circles have been made in depots, store, offices & on TW for maintaining social distance.
- Staffs has been called on rotation basis in offices to create social distancing.
- Live line checking of OHE has been done for improving reliability of OHE.
- Special drive has been launched to complete the rigorous foot patrolling of entire jurisdiction at supervisor level.







Foot patrolling mobile App “Traction Distribution Management System (TDMS)”

- CRIS has developed a foot patrolling App for Northern Railway as a pilot project. However, it has been implemented by TRD department of Prayagraj division.
- Digitization of foot patrolling and its reports has improved data collection mechanism & eliminated data entry errors.
- It has also reduced paper work and ensured monitoring of staff movement.
- The application has feature of Real time capturing of OHE defects and provision of taking photographs which sends alerts through SMS to depot in-charge and officers.
- All foot patrol reports are available to each hierarchal level through Internet along with retrieval of data of any numbers of years.
- Provision for data entry directly by patrolman & will help to avoid information delays.
- Defects reported by patrolman will remain in the app till they get attended.
- Efficient analysis and decision making through real time reporting and images increase the beauty of this App.