

G.P. (E)

**GOVERNMENT OF INDIA
MINISTRY OF RAILWAYS
RAILWAY BOARD**

No. 2015/Sig/Training/1

Dated 07.01.19

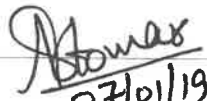
PCSTEs
All Zonal Railways

Sub.: -Introduction of Refresher Course for Helper/Signal and revision of
Foundation course for promotee Signal Maintainers.

Ref.: -Railway Board's letter no. E(MPP)/2018/3/7 dated 30.10.18.

Vide above referred letter, a refresher course of 02 weeks duration for Signal Helpers has to be introduced in all Zonal Railways S&T Training Centers after a gap of 05 years apart from 04 weeks Induction/Initial course. (Copy of above referred letter enclosed). The above referred letter is marked to General Managers/All Indian Railways and Production Units.

Railways are requested to conduct refresher course for Helpers/Signal at the earliest.


07/01/19
(Arjun Singh Tomar)
Director /Signal

S.M 433



**GOVERNMENT OF INDIA
MINISTRY OF RAILWAYS
RAILWAY BOARD**

No.E(MPP)/2018/3/7

**RBE No. 168/2018
New Delhi, Dated: 30.10.2018**

**The General Managers,
All Indian Railways and Production Units ,**

**The Director
Indian Railway Institute of Signal Engineering &
Telecommunication
Secunderabad**

**Sub: Introduction of refresher course for Helper/Signal and revision
of the Foundation course for promotee Signal Maintainers.**


In view of fast technological development in signaling field in Railways, a refresher course for Helper/Signal has been proposed.

2. As per existing provision, Helper/Signal are imparted 4 weeks (24 days) of initial/induction training only and no pre-promotional and refresher training.

3. Ministry of Railway in consultation with the Signal Directorate, has decided to introduce 2 (two) weeks Refresher Course for Helper/Signal after a gap of 5 years, apart from 4 weeks of Induction/Initial course. The course content for training is enclosed herewith (Annexure - A).

4. Further, the Foundation course for promotee Signal Maintainers has been reduced from 12 weeks to 8 weeks. The course content for training is enclosed herewith (Annexure - B).

DA: As above.


26/11/18
**(Mahendra Kumar Gupta)
Director (MPP)
Railway Board**

Refresher Course for Helper/Signal

(Annexure-A)

Item	Details	Allotted Hours
1	Registration	2
2	Theory	35
3	Practical	18
4	Audio Visual	4
5	Study Tour/Local Visit	4
6	Theory Examination	1
7	Practical Examination	2
TOTAL		66 (Two Weeks)

THEORY

S. NO.	Subject	Allotted Hours
1	Symbol and Meaning of Letters	1
2	Cleanliness, Personal safety, Fire Prevention & First Aid	2
3	Measuring Instrument & Portable Tools	3
4	Basic Electricity and Magnetism, Power Equipments, IPS, Cells & Battery, D.G. Set	4
5	Safety in Train Operation, Schedule of Dimensions & Disaster Management	3
6	Signalling Relays and Cables	3
7	D.C. Track Circuit	3
8	Color Light Signalling, LED aspects, Axle Counter, Electrical operated lifting Barrier	5
9	Signalling in RE area	2
10	Point Machine	3
11	Introduction to Block Instrument (Single line, Double line)	3
12	Introduction to Relay Interlocking, Electronic Interlocking	3
TOTAL		35

Practical

S.NO	Subject	Allotted Hours
1	Cells, Battery, Chargers, IPS, D.G. Set	3
2	Measuring Instruments & Portable Tools	2
3	Signalling Relays	2
4	D.C. Track Circuit	2
5	Color Light Signalling, LED aspects, Axle Counter	3
6	Point Machine	2
7	Single & Double line Block Instrument	2
8	Level crossing gates	2
TOTAL		18

AUDIO VISUAL

S. NO.	Subject	Allotted Hours
1	Point M/C, LED Signal	2
2	Track Circuit	2
TOTAL		4

NAME OF COURSE:- FOUNDATION COURSE FOR PROMOTEE'S SIGNAL MAINTAINER

(5)
(ANNEXURE-B)

COURSE MODULE NO.		SNT-10	PRACTICAL HOURS	
DURATION		08 WEEKS	THEORY HOURS	
TOTAL HOURS		264	JOINING, EXAM, VIVA, LOCAL VISIT etc	
			THEORY HOURS	
S.NO.	CONTENTS(THEORY)	ST CODE NO.	Existing	Revised
1	Measuring Instruments	3		2
2	Power Equipment Cells & Battery, IPS,	4	18	12
3	Basic Electricity & Magnetism	5	18	6
4	Safety in-train operation & Disaster Management, Schedule of dimension, Personal Safety, Prevention of Fire	6	18	10
5	Signalling Cables	8		3
6	Basic concept of signalling	15	24	18
7	Orthodox Mechanical Sig.	16	10	2
8	Reverser, Lever Lock, CKT controller Arm and light repeater	18	18	2
9	Inter slotting EKT, EPD	19	18	2
10	Relays	20	20	6
11	Track Circuit	21	20	12
12	Solar Panel	22		2
13	Color Light Signalling, LED aspects, D.G. Set	23	18	18
14	Point Machine	24	12	10
15	Axle Counter & IBS	26		8
16	Single line block instrument	28		6
17	Double line block instrument	29	34	6
18	Signalling in RE area & Installation practices	30		8
19	Automatic Signalling System	31		6
20	Introduction to Relay Interlocking	34		3
21	BPAC	36		3
22	Introduction to Electronic Interlocking & Data Logger	37		3
23	UFSBI *			3
24	Documentation Signal failure Register, History Book, Disconnection*			2
25	Electric Lifting Barrier*			2
26	Earth Leakage Detector(ELD)*			2
27	Domino Panel*			1
		TOTAL	228	158

*This is in addition to the standard syllabus

	Practical	Allotted Hours
1	Study of AVO Meter, Multimeter, Megger	2
2	Power Equipment Cells & Battery, IPS, D.G.Set, Solar Panel	9
3	D.C. Track Circuit	6
4	D.C. cut section track circuit	6
5	Single & Double line Block instrument (Study, working,	9
6	Signalling Cable	3
7	Study of colour light signal, LED aspects,	4
8	ELD, Maintenance of earth	3
9	Axle Counter	4
10	Relay Interlocking & Panel Interlocking	4
11	Electronic Interlocking	4
12	Study & Adjustment of Lifting Barrier Gate (Electrical & Mechanical)	9
13	UFSBI	3
14	BPAC	3
15	Data Logger	5
16	Point Machine	9
	TOTAL	83