

भारत सरकार (GOVERNMENT OF INDIA)
रेल मंत्रालय (MINISTRY OF RAILWAYS)
रेलवे बोर्ड (RAILWAY BOARD)

No. 2012/Sig/ATSS/Pt.

New Delhi, Dt. 14.02.2024

PCSTEs
Zonal Railways
CORE/Prayagraj,
KRCL, Metro/Kolkata

PED/S&T
RDSO
Lucknow

DG/IRISET
Secunderabad

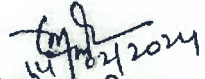
Sub: Technical System Application Approval (TSAA) of Electronic Interlocking.

- Ref:** (i) ED/Sig-I/RDSO's L.No. RDSO-SIG0EI(TAN)/1/2022 dtd. 04.08.23
(ii) RB's L.No. 2012/Sig/ATSS dtd. 02.09.15.
(iii) RB's L.No. 2023/Sig/ATSS dtd. 10.01.2020.
(iv) RB's L.No. 2021/Sig/25-Conf/5/SSC dtd. 26.02.21.
(v) RB's L.No. 2012/Sig/ATSS/Pt. dtd. 28.02.2023.

Vide letter under reference (iii) above, PCSTEs were empowered for granting Technical System Application Approval (TSAA) of Electronic Interlocking for all EI installations upto 100 routes which was further enhanced to 200 routes vide reference (iv) & (v) above. Policy guidelines were also issued for obtaining TSAA in case of alterations in EI vide reference (ii) above.

2. Based on RDSO's letter (Ref i above), the criteria for granting TSAA has been reviewed and henceforth, the following will be the guidelines for TSAA:

- PCSTEs are empowered to grant TSAA for all EIs having routes up to or less than 200 routes including alterations thereof till total number of routes surpasses 200, in that case TSAA shall be granted by RDSO.
- For alterations in EIs having more than 200 routes, TSAA shall be granted by PCSTE in case there is no addition to number of CPUs. However, if alteration involves provision of additional CPU, TSAA shall be granted by RDSO.
- For EI with initial installation case of new vendor/new model on the Zonal Railway, TSAA shall be granted by RDSO.


(रामेश्वर मीना)

कार्यकारी निदेशक (सिगनल)
edsignal@rb.railnet.gov.in

I/46058/2023

Telephone : +91-522-2462440 Fax : +91-522-2452332 E-mail : amitmisra.am@gov.in edsig@rdsolrailnet.gov.in	 सत्यमेव जयते	भारतसरकाररेलमंत्रालय अनुसंधानअभिकल्पऔरमानकसंगठन लखनऊ-226011 Government of India - Ministry of Railways Research Designs & Standards Organisation Lucknow- 226011	
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No: RDSO-SIG0EI(TAN)/1/2022

(Through email)
Date:04.08.2023

ED Signal,
Railway Board, New Delhi
Email-edsignal@rb.railnet.gov.in

- Sub/विषय:** Technical System Application Approval (TSAA) for alteration work of Electronic Interlocking.
- Ref/संदर्भ:**
- (i) Railway Board's letter no. 2012/Sig/ATSS dated 02.09.2015.
 - (ii) Railway Board's letter no. 2012/Sig/ATSS dated 10.01.2020.
 - (iii) Railway Board's letter no. 2021/Sig/25-Conf/5/SSC dated 26.02.2021.
 - (iv) This office's letter of even no. dated 16.12.2022.
 - (v) Railway Board's letter no. 2012/Sig/ATSS/Pt. dated 28.02.2023.

In reference to above subject, vide letter under reference (i) PCSTEs were empowered for granting TSAA of all EI installations up to 100 routes and vide letter under reference (iii), it has been increased to 200 routes. However, vide letter under reference (ii) for alteration work of EI, it was mentioned that

- (1) For alteration in EIs having more than 100 routes, TSAA may be granted by PCSTE for alteration involved up to 50 routes. For alteration involving above 50 routes. TSAA shall be granted by RDSO.
- (2) For alteration in EIs having less than 100 routes, for any alteration TSAA shall be done at PCSTE's level till total number of routes surpasses 100 routes, in that case TSAA shall be granted by RDSO.

Considering the empowerment of PCSTEs for granting TSAA up to 200 routes, Railway Board, vide this office's letter at ref.-iv, was requested to modify the above criteria of no. of routes for EI alteration work. Railway Board, vide its letter at ref.-v, has modified the guidelines for TSAA as given below:

- (i) PCSTEs are empowered to grant TSAA for all EIs having routes up to or less than 200 routes including alterations thereof.
- (ii) For EIs with initial installation cases of new vendors/new models, TSAA shall be granted by RDSO.

Due to the above modified criteria for TSAA, it is seen that proposals for TSAA are being received in RDSO for even very minor alterations in EI. In most of the cases for which the proposal of TSAA is being received for alteration in existing EI, it is seen that the TSAA has already been given by RDSO when EI was originally commissioned. For giving TSAA, RDSO does the scrutiny of documents which are submitted by the Zonal Railways and all such cases are sent to RDSO after the scrutiny by Zonal Railway

I/46058/2023

Headquarter and with the approval of PCSTE. TSAA by RDSO was originally mandated when Electronic Interlocking systems were being commissioned initially over Indian Railways and when Zonal Railways were not very experienced in Electronic Interlocking systems. At present, more than 3000 Electronic Interlocking systems have already been commissioned across the Zonal Railways and now the Zonal Railways are very well versed with the Electronic Interlocking systems. Hence TSAA by RDSO is not very much relevant in present scenario and full power for TSAA may be given to Zonal Railways.

Till the time full powers for TSAA is given to Zonal Railways, in cases of alteration in EI having more than 200 routes, it is recommended that TSAA may be given by the PCSTEs for alteration works involving up to 50 routes. For alteration works involving more than 50 routes, TSAA may be given by the PCSTEs if alteration involves changes in only application logic circuits or involving minor hardware changes like I/O boards etc. Accordingly the criteria for granting TSAA may be modified as given below:

- (a) PCSTEs may be empowered to grant TSAA for all EIs having routes up to or less than 200 routes including alterations thereof till total number of routes surpasses 200, in that case TSAA shall be granted by RDSO.
- (b) For alterations in EIs having more than 200 routes, TSAA may be granted by PCSTE for alterations involved up to 50 routes. For alteration works involving more than 50 routes, TSAA may be given by the PCSTEs if alteration involves changes in only application logic circuits or involving minor hardware changes like I/O boards etc. For other alteration works, TSAA shall be granted by RDSO.
- (c) For EIs with initial installation cases of new vendors/new models, TSAA shall be granted by RDSO.

This is for your kind information and further necessary action please. This has the approval of PED S&T RDSO.

Digitally Signed by Amit
Misra

Date: 04-08-2023 18:12:20

Reason: Approved

अमित मिश्र | **Amit Misra**
कार्यकारीनिदेशक | **Executive Director**
सिग्नल- I | **Signal-I**
कृतेमहानिदेशक/सिग. एवं दूर. | **for Director General/S&T**

Copy to: PED (Sig. Mod.) and ED/Sig. Dev. Railway Board, Rail Bhawan, New Delhi for kind information please.

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GOVERNMENT OF INDIA (भारत सरकार)
MINISTRY OF RAILWAY (रेल मंत्रालय)
RAILWAY BOARD (रेलवे बोर्ड)

No. 2012/Sig/ATSS

Date: 02.09.2015

CSTE
All Indian Railways

CSTE/Construction
All Indian Railways

ED(Coordination)/Signal/ RDSO

Sub : Technical System Application Approval of Advanced Technology
Signaling Systems.

Ref : (i) Railway Board's letter no. 2012/Sig/ATSS dtd. 03.05.2012.

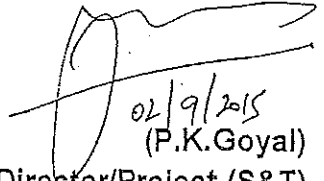
(ii) RDSO's letter no. STS/E/General/Cross Approval dtd 09.12.2014.

(iii) RDSO's letter no. STS/E/General/Cross Approval/Vol.II
dtd 14.08.2015.

The practice of obtaining Technical System Application Approval (TSAA) from RDSO before any Electronic Interlocking (EI) or Automatic Block Signalling (ABS) System is commissioned by Railways has been reviewed, as requested by RDSO. Keeping in view the fact that adequate experience has now been gained by Railway in commissioning of EIs and ABS, it has been decided that :-

"Railways are not required to obtain Technical System Application Approval (TSAA) from RDSO for commissioning of Automatic Block Signalling or Electronic Interlocking installation upto 100 routes. However, for Electronic Interlocking installation with more than 100 routes, the practice of obtaining TSAA from RDSO prior to commissioning will continue."

Please acknowledge receipt of the letter.


02/9/2015
(P.K. Goyal)
Director/Project (S&T)
Railway Board

Copy to : Director, IRISCT

(भारत सरकार) GOVERNMENT OF INDIA
(रेल मंत्रालय) MINISTRY OF RAILWAYS
(रेलवे बोर्ड) RAILWAY BOARD

o. 2012/Sig/ATSS

New Delhi, dt. 10.01.2020

CSTEs
Zonal Railways
ORE/Allahabad, Metro/Kolkata & KRCL

Director, IRISSET **ED/Sig/Co-ord**
RDSO, Lucknow

Sub: Technical System Application Approval (TSAA) of Electronic Interlocking (EI).

Ref: 1. Rly Bd's letter of even no. dt. 02.09.2015
2. PCSTE/SECR's letter No. SECR/S&T/EI/TSAA/1045
dt. 22.10.19

vide ref 1 above, policy guidelines were issued that the practice of obtaining TSAA from RDSO, prior to commissioning will continue for electronic interlocking installation with more than 100 routes.

vide ref 2 above, SECR has sought clarification in case of alterations in those EIs for which TSAA has been taken earlier. The clarification has been asked as to whether TSAA shall be taken for all alterations in EI, or alterations having changes in system configuration or it is not required at all.

Board has examined the matter. It has been decided that

- For alterations in EIs having more than 100 routes, TSAA may be granted by PCSTE for alterations involved upto 50 routes. For alterations involving above 50 routes, TSAA shall be granted by RDSO.
- For alterations in EIs having less than 100 routes, for any alteration TSAA shall be done at PCSTE's level till total number of routes surpasses 100 routes, in that case TSAA shall be granted by RDSO.

Arjun Singh Tomar
10/01/2020
(Arjun Singh Tomar)
निदेशक (सिगनल)

**(भारत सरकार) GOVERNMENT OF INDIA
(रेल मंत्रालय) MINISTRY OF RAILWAYS
(रेलवे बोर्ड) RAILWAY BOARD**

No. 2021/Sig/25-Conf/5/SSC

date: 26.02.2021

**PED/QA/S&T
RDSO
Lucknow**

**Sub:- Special Signal Standards Committee (SSC)'s Meeting for EI.
Ref:-ED/S&T/Srestha/RDSO's letter no. RDSO-Sig-Misc(SSC)/1/2021 dt 22.02.21**

Recommendations of Agenda Items of Special SSC's Meeting for EI communicated vide RDSO's letter under reference has been considered in Board's Office and are hereby approved by the competent authority (Member/Infra) as under:-

S N	Agenda Items	SSC Recommendations	Railway Board's Remarks
1	Dispensation to provide Centralized EI for more than 50 routes and up to 100 routes. Distributed EI up to 100 routes may be provided based on the yard's geographical location with the spread of gears with the approval of PCSTE	Centralized EI should be provided up to 100 routes; however, PCSTEs may take a final decision of distributed architecture based on maintainability and yard complexity.	Recommendations of SSC are accepted. Design for centralized/distributed EI upto 100 routes should be based on physical layout of yard, complexity involved, maintainability aspect, etc.
2	Empowerment for Technical System Application Approval (TSAA) for EI with more than 100 routes to PCSTEs.	PCSTEs should be empowered for TSAA of all EI installations below 200 routes except for large/complex yards involving intricate networking, initial installation cases for new vendors/new models, and any other case deemed suitable by Zonal Railway.	Recommendations of SSC are accepted.
3	The adoption of Uniform typical circuits across Indian Railways for Electronic Interlocking.	Zonal railways will submit their comments on Uniform typical circuits to RDSO. RDSO will consolidate comments and submit to standing committee	Recommendations of SSC are accepted.

I/3014376/2021

		for examination. SCC opined that uniform typical circuits should be OEM neutral.	
4	Single specification for Electronic Interlocking with provision of block working.	Zonal railways will submit their comments over new specifications within the month, i.e., by 20.03.2021. RDSO will prepare a roadmap for the seamless merger of EI specifications. RDSO will also comment on development of vendors for new specifications and time frame for migration of existing vendors to new specifications. Old specifications to be continued for spares. Draft specification is proposed to be discussed in next SSC.	Recommendations of SSC are accepted.

RDSO is requested to circulate Zonal railways and PSUs.

Digitally signed by ARJUN
SINGH TOMAR
Date: Fri Feb 26 20:38:37 IST
2021
Reason: Approved

(Arjun Singh Tomar)
Executive Director (Signal)

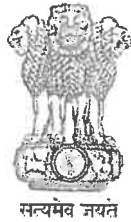
831864/2021/Signal Branch

रजनीश गुप्ता

कार्यकारी निदेशक/एस एंड टी / श्रेष्ठा

अनुसंधान अभिकल्प एवं मानक संगठन, लखनऊ

भारत सरकार- रेल मंत्रालय



सत्यमेव जयते

RAJNEESH GUPTA

Executive Director / S&T / SRESTHA

Research Designs & Standards Organisation, Lucknow

Government of India - Ministry of Railways

No. RDSO-SIG-MISC(SSC)/1/2021**Date: 22.02.2021**

The Secretary (Signal),
Railway Board,
Rail Bhavan, NEW DELHI.

Sub: Special Signal Standards Committee (SSC)'s Meeting for Electronic Interlocking

Ref: Railway Board's letter no. 2021/Sig/25-Conf/5/SSC dated: 04.02.2021

In compliance to Railway Board above ref letter a Special Signal Standards Committee meeting was held on 20.02.2021 through Video conference. The Spl. SSC meeting was chaired by Shri Rahul Agarwal, PCSTE Northern Railway. Deliberation on the agenda items and recommendations thereof are detailed below in juxtaposition for consideration and approval of Railway Board.

S.No.	Agenda Item	Recommendations of SSC
1.	Dispensation to provide Centralized EI for more than 50 routes and up to 100 routes. Distributed EI up to 100 routes may be provided based on the yard's geographical location with the spread of gears with the approval of PCSTE.	Centralized EI should be provided up to 100 routes; however, PCSTEs may take a final decision of distributed architecture based on maintainability and yard complexity.
2.	Empowerment for Technical System Application Approval (TSAA) for EI with more than 100 routes to PCSTEs.	PCSTEs should be empowered for TSAA of all EI installations below 200 routes except for large/complex yards involving intricate networking, initial installation cases for new vendors/new models, and any other case deemed suitable by Zonal Railway.
3.	The adoption of Uniform typical circuits across Indian Railways for Electronic Interlocking.	Zonal railways will submit their comments on Uniform typical circuits to RDSO. RDSO will consolidate comments and submit to standing committee for examination. SCC opined that uniform typical circuits should be OEM neutral.
4.	Single specification for Electronic Interlocking with provision of block working.	Zonal railways will submit their comments over new specifications within the month, i.e., by 20.03.2021. RDSO will prepare a roadmap for the seamless merger of EI specifications. RDSO will also comment on development of vendors for new specifications and time frame for migration of existing vendors to new specifications. Old specifications to be continued for spares. Draft specification is proposed to be discussed in next SSC.

RAJNEESH GUPTA Digitally signed by RAJNEESH GUPTA
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(Rajneesh Gupta)
Executive Director/Srestha
for Director General/Signal

रजनीशगुप्ता

कार्यकारीनिदेशक/एसएंडटी/श्रेष्ठा
अनुसंधानअभिकल्पएवंमानकसंगठन,लखनऊ
भारतसरकार-रेलमंत्रालय



RAJNEESH GUPTA

Executive Director / S&T / SRESTHA
Research Designs & Standards Organisation,
Lucknow

Government of India - Ministry of Railways

RDSO-SIG0EI(GEN)/1/2021

दिनांक:03.03.2021

PCSTEs All Indian Railways	CMD's Raitel Plate-A, NBCC Building, EastKidwai Nagar, New Delhi-110023
DG/IRISET, Tarnaka Road Lallaguda, P.O Secunderabad -17	PED/S&T/RVNL, Rama Krishna Puram, New Delhi, 110066
PCSTE, CORE, Nawab Yusuf Road, Civil Lines, Allahabad- 211 001	GM/S&T/DFCCIL, 5th Floor, Pragati Maidan,Metro Station, New Delhi, Delhi 110001
PCSTE, Metro Railway, 33/1, Jawaharlal Nehru Road, Kolkata 700071	GM/S&T/RITES,B323, Asian Games Village Complex, Siri Fort, New Delhi, Delhi 110049
GM/S&T, IRCON Internation Limited, C- 4,District Centre, Saket, New Delhi 110017	

Sub/विषय: Special Signal Standards Committee (SSC)'s meeting on 20.02.2021

Ref/संदर्भ: Railway Board's letter No. 2021/Sig/25-Conf/5/SSC Dated 26.02.2021

The Special SSC meeting was organised over webex on 20.02.2021. the Railway Board has accepted the recommendation of SSC and issued guidelines vide above referred letter. Letter of guidelines issued by railway board is enclosed herewith for information and further necessary action, please.

**RAJNEESH
GUPTA**

Digitally signed by RAJNEESH
GUPTA
Date: 2021.03.03 11:24:29
+05'30'

रजनीशगुप्ता | **Rajneesh Gupta**
कार्यकारीनिदेशक | **Executive Director**
एसएंडटी/श्रेष्ठा | **S&T/Srestha**
कृतेमहानिदेशक | **for Director General/Signal**

Copy to: (i) ED/Signal/Railway Board, Rail Bhawan,
New Delhi
(ii) PED/QA/S&T/Lucknow

For information please

भारत सरकार (GOVERNMENT OF INDIA)
रेल मंत्रालय (MINISTRY OF RAILWAYS)
रेलवे बोर्ड (RAILWAY BOARD)

No. 2012/Sig/ATSS/Pt.

New Delhi, Dt. 28.02.2023

PCSTEs
Zonal Railways
CORE/PRYJ,
Metro/ Kolkata & KRCL

PED/S&T
RDSO
Lucknow

DG/ IRISST
Secunderabad

Sub: Technical System Application Approval (TSAA) of Electronic Interlocking
Ref: (i) Rly Bd's letter of even no. dt. 02.09.2015
(ii) Rly Bd's letter of even no. dt. 10.01.2020
(iii) Rly. Bd's letter No. 2021/Sig/25-Conf/5/SSC dt. 26.02.2021
(iv) RDSO's letter No. RDSO-SIGOEI(TAN)/1/2022 dt.16.12.2022

Vide letter under reference (i) above, PCSTEs were empowered for granting Technical System Application Approval (TSAA) of Electronic Interlocking for all EI installations upto 100 routes which was further enhanced to 200 routes vide reference (iii) above. Policy guidelines were also issued for obtaining TSAA in case of alterations in EI vide reference (ii) above.

Based on RDSO's letter (Ref-iv above), the criteria for granting TSAA has been reviewed and henceforth the following will be the guidelines for TSAA:

- (i) PCSTEs are empowered to grant TSAA for all EIs having routes upto or less than 200 routes including alterations thereof.
- (ii) For EIs with initial installation cases of new vendors/new models, TSAA shall be granted by RDSO.


(रामेश्वर मीना)
(Rameshwer Meena)
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Executive Director (Signal)
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