



दक्षिण पूर्व रेलवे
SOUTH EASTERN RAILWAY

प्र. मु. संकेत व दूरसंचार अभियंता का कार्यालय
तीसरी मंजिल नया प्रशासनिक भवन
गार्डनरीच
कोलकाता- 700043

Office of the
Principal Chief Signal & Telecom Engineer
3rd Floor, New Administrative Building
Garden Reach
Kolkata- 700043

No.S&T/S/322/Pt. XI (Computer no. 123020/163492)

Date/दिनांक:- 11.03.2024.

CSTE/Con/SER,
CSTE/Project/SER
Sr.DSTE (Co)/KGP, Sr.DSTEs/ADA, CKP, RNC
GM/S&T/RVNL/Kolkata & Bhubaneswar

Sub: Procedure to deal with Completion Drawing.

Ref: (i) This Office letter no. S&T/S/322/Pt.- XI (Comp. No. 123020/163492)
dated 18.12.2023.

(ii) CSTE/Project letter no. S&T/Project/Completion Drawings/P807/87
dated 28.02.24.

The policy regarding “procedure to deal with completion drawing” was issued vide letter under reference (i). The existing para no.5 of the letter under reference (i) is superseded with following para : -

5. Additional clause in the Tender document regarding Drawing & Design (to be complied by Executing Agency)

5.1 Final tracing after updating all the site specific “As made” changes shall be submitted to concerned HQ/Divisional drawing office within 30 days from the date of commissioning of the station. The time taken for checking the completion diagrams by Railways will not be counted in 30 days as given above.

5.2 (i) Failing of the above condition shall attract a penalty of 10% of the total cost of drawing & design per day after 30 days.

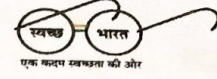
(ii) In the case where individual cost of drawing and design is not available, the penalty may be decided by tender accepting authority.

5.3 No credential certificate in favour of the firm shall be drawn if the drawing and design work is unsatisfactory.

This has the approval of PCSTE.

(A K Gupta)

Chief S&T Engineer /D&D.



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संख्या/No. S&T/S/322/Pt.-XI (Computer No.123020/163492)

दिनांक/Date 18/12/2023

Sub: -Procedure to deal with Completion Drawing

1. General Requirement of Completion Drawing

1.1 Availability of "completion/As made" drawing is of utmost importance for any running station to enable efficient fault finding, future planning for modification work, and endorsement of "integrity" of the interlocking as per the approved Route Control chart.

1.2 It is important to have Approved Completion drawing for i) SIP, RCC/TOC, Interface/Wiring diagram, Application logic, Front plate diagram/VDU screen shot and outdoor drawings like ii) Signal Lamp control, motor point, axle counters, crank handles etc. for EI installations & iii) Terminal charts/C.T Rack details, Traction bonding plan, Cable route plan, Location box details.

1.3 The first category of drawing as mentioned in the above Para, is HQ controlled drawing which shall be approved by concerned drawing office of executing agency (Construction, Openline & Project) and original tracings shall be preserved at HQ/OL drawing office. The 2nd and 3rd category of drawings shall be approved by concerned Divisional JAG officers (Sr.DSTE & Dy.CSTE/ Con, Dy.CSTE/Project) and original tracing of the same shall be preserved at Sr. DSTE's office.


2 Completion Drawing for New Works

2.1 All the "As made changes" shall be shown in Red color and must be endorsed by concerned SSE/Sig and ASTE/DSTE of the executing agency.

2.2 While certifying "As made changes," availability of latest alteration of SIP/RCC/wiring diagram and version of Application logic shall be ensured.

2.3 Endorsement of Completion changes shall be done on the Approved drawings only.

2.4 "As made changes" in the Interface drawing/wiring diagram are to be marked on the bell-tested copy only which was certified by SSE/Sig or ASTE during previous test/checks.


18.12.23

- 2.5 At the time of processing site verification for completion drawing of a station, drawing modification at the adjacent station for dual detection purpose, provision of DLBP/SLBP , mid section LC gate, and/or some specialized circuits shall be considered and verified copy of the same shall also be sent to HQ along with the main drawing.
- 2.6 All site verified completion endorsement (for HQ controlled drawings) shall reach HQ within 30 days of commissioning of the station.
- 2.7 A copy of the site verified document shall also required to be handed over to firm/OEM for updating changes in terminal/fuse number, contact details, contact analysis chart, relay position or any site specific details within 15 days of commissioning of the station.
- 2.8 Divisional executing agency (Construction, Project, Open line) shall ensure that the site verified paper copy and the updated/final original tracings are deposited at the HQ simultaneously to avoid delay in processing.
- 2.9 Latest available version of Application logic or comparison report, whichever may be applicable shall be endorsed to prepare completion site verified copy for logics. Checksum/CRC number of the installed logic must be written on red color on the front page of the document in large font.
- 2.10 Last minute changes in the application logic done during NI period or post commissioning shall be certified by JAG officer of executing agency. (Ref: This office earlier policy circular no S&T/S/322/Pt.-XI, dated: 04.12.23, Para-6.1)
- 2.11 VDU diagram shall be integral part of interface drawing. Completion changes if any shall be properly marked such that original tracing containing the site loaded version can be thoroughly matched for modifications.
- 2.12 Outdoor drawing as mentioned in Para 1.2 above shall not be sent to HQ. These drawings are to be checked and approved as per the site verified "As made" copy by the concerned Divisional authorities/Executing agency.
- 2.13 After approval of Completion drawing, original tracings are to be handed over to firm for taking out required number of prints as per the tender conditions and return the original tracing with folders with following soft copies in pen-drives: a) Scanned PDF copy of the final approval after completion for all the drawing documents mentioned in Para 1.2(i), b) CAD copies of RCC, Interface, wiring diagram, FPDs, c) Application logic in Boolean form which can be uploaded in the RCIL cloud for all future purposes.

3. Completion Drawing for Alteration Works

- 3.1 It is observed that, in some cases existing SIP, RCC, FPD and wiring diagrams are already having multiple alterations in the original tracing; adding yet another modification shall render the drawing almost unreadable. In such cases, fresh drawings are to be prepared by superseding the existing one


10.12.23

such that complications are avoided during issue of "As made" drawings. Necessary provision in the tender conditions may be kept.

3.2 In cases where the volume of alteration in the wiring diagram/ application logic / Interface drawings are far too small compared to the total amount of existing drawing or where there are no scope for supply of these drawing/documents; completion drawing shall be done with approval of "History sheets".

3.3 Since the existing tracing for VDU diagram is often found to be not suitable for manual correction due to its small size, any change in the VDU shall be managed with supply of new original tracing.

3.4 Particular sheets that contain any change shall be approved, while all the "No change" sheets are mentioned in the common "History sheet".

3.5 History Sheets are to be treated as integral part of the design document and shall be preserved along with the main drawing.

3.6 Endorsement of Completion changes shall be done on the Approved drawings only.

3.7 Completion wiring diagram for PI work shall be accompanied by contact analysis chart for better clarity of relay usage.

3.8 "As made changes" in the Interface drawing/wiring diagram are to be marked on the bell-tested copy (wherever it is feasible to carry out) which was certified by SSE/Sig or ASTE during previous test/checks.

3.9 All site verified completion endorsement (for HQ controlled drawings) shall reach HQ within 30 days of commissioning of the station.

3.10 A copy of the site verified document shall also required to be handed over to firm/OEM for updating changes in terminal/fuse number, contact details, contact analysis chart, relay position or any site specific details within 15 days of commissioning of the station.

3.11 Last minute changes in the application logic done during NI period or post commissioning shall be certified by JAG officer of executing agency. (Ref: This office earlier policy circular no S&T/S/322/Pt.-XI, dated: 04.12.23, Para-6.1)

3.12 After approval of Completion drawing, original tracings are to be handed over to firm for taking out required number of prints as per the tender conditions and return the original tracing with folders with following soft copies in pen-drives: a) Scanned PDF copy of the final approval after completion for all the drawing documents mentioned in Para 1.2(i), b) CAD copies of RCC, Interface, wiring diagram, FPDs, c) Application logic in Boolean form which can be uploaded in the RCIL cloud for all future purposes.



4. Documentation of Completion drawing & soft copies at HQ/OL drawing office.

4.1 Division-wise, station-wise records of all sorts of HQ controlled drawings with respective alteration number for each drawing shall be maintained both in registers (hard copy) and in softcopies such that fetching of records becomes easier at a later date.

4.2 These registers are to be updated as and when any new drawing is received after completion.

4.3 Soft copies of PDF & CAD format received along with completion drawing/documents are to be preserved in such a way that no confusion is generated when multiple alteration/version of drawing for a single station is encountered.

4.4 Sometimes multiple drawings are accumulated due to doubling/tripling / major yard remodeling within a considerably smaller amount of time on the same station. A periodical review shall be made with a frequency of two years to eliminate duplicated drawings which are no longer in use.

5. Additional clause in the Tender document regarding Drawing & Design (to be complied by Executing Agency)


5.1 Final tracing after updating all the site specific "As made" changes shall be submitted to concerned HQ/ drawing office within 30 days from the date of commissioning of the station.

5.2 Failing of the above condition shall attract a penalty of 10% of the total cost of drawing & design per day after 30 days.

5.3 No credential certificate in favor of the firm shall be drawn if the drawing and design work is unsatisfactory.

Any suggestions for improvement on this policy shall be communicated so that subsequent amendments can be issued. This policy shall be reviewed 1 year after the date of its issue.

This has the approval of PCSTE/SER


18.12.23
A K Gupta
(CSTE/Planning)

Copy to : for information & implementation please –

- 1) CSTE/Con/SER, CSTE/Project/SER
- 2) Sr. DSTE (Co)/KGP, Sr. DSTEs/ADA, CKP, RNC
- 3) GM/S&T/RVNL/Kolkata & Bhubaneswar