



भारत-सरकार/Government of India
रेल मंत्रालय/Ministry of Railways
दक्षिण मध्य रेलवे/South Central Railway



महाप्रबंधक(विद्युत)/ General Manager[E]

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सिकंदराबाद/Secunderabad-500 025

दिनांक/Date: 07.12.2022

संख्या/No.E.252/TRD/Drawing/TRD Policy.

CEE/C/SC, CPD/RE/SC,
GM/E/RVNL/SC, GM/E/RVNL/MAS,
GM/E/RITES/SC,
Sr.DEE/Tr.D/SC, BZA
Sr.DEE/Tr./GTL, GNT, HYB, NED

Sub: Usage of Earth electrodes at various Tr.D installations with clarification over schedule items 17(a), 17(b) and 17(f) in Tr.D works as system improvement suggested by Vigilance Branch.

As a part of the System Improvement on earthing arrangement in TrD installations, the following are advised.

1. Earth electrode of 4.0m length should be used at all Power System Installations such as TSS, SSP, SP and AT duly following RDSO Tech. Spec. (TI/SPC/PSI/ERTHNG/0210, dt. 25.08.21) or latest.
2. Earth electrode of 3.1m length should be used at all OHE installations such as COP/ FOB/ PTFE/Steel Girder/single line track circuit area/Isolators duly following RDSO drawing ETI/OHE/P/7020 (Mod-B) and specification no. ETI/OHE/71 (11/90) – Rev-1 or latest.
3. Modified Explanatory notes for the schedule item Nos 17(a), 17(b) & 17 (f) shall be incorporated in all Tr.D works - tender as suggested below.

i. ITEM No. 17(a): Supply and erection of single earth electrode at COP/FOB/PTFE/Steel Girder etc.

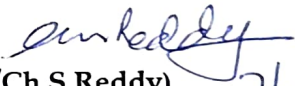
The price shall cover supply and erection of an earth electrode assembly as per RDSO Drawing No. ETI/OHE/P/7020 (Mod-B) or latest, without charcoal & salt, for COP/FOB/CLS/PTFE/Steel Girder/ Single line track circuit area/earthing for Isolators/ buried rail etc. The price also includes 3.1m long mild steel galvanized single perforated pipe of not less than 40mm nominal bore and 48.4mm dia., embedded into the ground by driving or otherwise complete with fasteners, protective concrete box with lids and lugs suitable for directly connecting mild steel flats of size 40 mm x6mm / 50 mm × 6 mm as per RDSO specification No. ETI/OHE/71 (11/90)-REV 1 or latest. Stencilling of earth values shall be done as per SCR Guidelines. Price of MS flat will be paid separately under relevant item. Price of charcoal & salt is payable under item no.17(b)

ii. ITEM No. 17(b): Supply and filling of charcoal & salt for earthing arrangement.

The price shall be payable as extra on item 17 (a) for supply and filling with charcoal and salt where an earth electrode is embedded by driving or otherwise. Salt and river sand to be mixed on the surface as one layer. Alternate layers of charcoal & salt shall be provided 200 mm around the earth pipe for embedded portion and each layer shall be 30 cm.

iii. ITEM No. 17(f): Supply and erection of single earth electrode at TSS/SSP/SP/AT

The price shall cover supply and erection of an earth electrode assembly as per RDSO Drawing No. ETI/PSI/222-1 or latest, with charcoal & salt, all accessories & fasteners for 4.0 m length earth electrode at TSS/SSP/SP/AT's. The price also includes 4.0 m long mild steel galvanised single perforated pipe of not less than 40mm nominal bore and 48.4mm dia., embedded into the ground by driving or otherwise complete with protective concrete box with lids and lugs suitable for directly connecting two mild steel flats of size 50 mm × 6 mm / 75mm x8 mm as per RDSO specification no. TI/SPC/PSI/ERTHNG/0210. Stencilling of earth values shall be done as per SCR Guidelines. Salt and river sand to be mixed on the surface as one layer. Alternate layers of charcoal & salt shall be provided 150 mm around the earth pipe for embedded portion and each layer shall be 30 cm. Price of MS flat will be paid separately under relevant item.


(सीएच.एस. रेड्डी/Ch.S.Reddy)
मु.वि.वि.इंजी/दमरे/एससी/CEDE/SCR/SC

C/ - CVO/S&T/SC - for information please.