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Government of Indian
Ministry of Railways
Research Design & Standards Organisation
Manak Nagar, Lucknow – 226011.

MAINTENANCE INSTRUCTION No. TI/MI/0049 Rev.1

1. **TITLE:** Tolerances and limits in 25KV AC OHE installation with 65/107sq-mm Catenary/Contact wire with tension 1000kg/1000kg.
2. **APPLICATION:** Conventional/High Rise OHE Installations.
- 3.0 **OBJECTIVE:** To ensure reliable, failure free OHE and to ensure correct erection and maintenance practices.
- 4.0 **DETAILS OF SPECIAL MAINTENANCE INSTRUCTIONS:** Following tolerances and Limits are advised for adoption in Railway Electrification Projects/System at field level:

SN	Item	Limits
i	Register Arm Tube Projection	Push off location: 150-200 mm. Pull off location: It shall project over Contact Wire Plane.
ii	Bracket Tube Projection	150-200 mm
iii	Dip between Register Arm Tube & Steady Arm	250 - 300 mm on Tangent Track (BFB Steady Arm). 250 -320 mm on Curves (BFB Steady Arm & Bend Tubular Steady Arm)
iv	Difference between mainline Contact wire and the Crossover Contact wire at Support.	50 mm (minimum)
SN	Item	Tolerances
v	Encumbrance	±50 mm
vi	Length of 'A' Dropper (1 st Dropper from Support)	±5 mm
vii	Spacing of 'A' Dropper (1 st Dropper from Support)	±30 mm
viii	Length of Other Droppers	± 5 mm
ix	Spacing of Other Droppers	±50 mm
x	Stagger of Catenary Wire	± 30 mm
xi	Height of Catenary Wire	±50 mm
xii	Height of Contact Wire at support	As per Para 7.3 of Appendix I of ACTM Vol.- II Part II
xiii	Stagger of Contact Wire	± 10 mm
xiv	Position of Compensation Plate	It shall be in vertical Plane
xv	3-Pulley Modified Regulating Equipment. (i) Tolerance in X value (ii) Tolerance in Y value	±50mm ±150 mm

- 5.0 **Maintenance of Records:** In the concern Equipment Register as Erected SED.
- 6.0 **Agency for Implementation:** Railways, Construction Organizations and Railway Electrification agencies.
- 7.0 **References :** (i) Maintenance Instruction No. TI/MI/0049, effective from 17.05.2021.
(ii) ACTM para No. 7.3 Erection tolerance of Vol.II, Part II.
