



Government of Rajasthan
Office of Project Director

Rajasthan Urban Infrastructure Development Project

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No. F3 (201) (57)/RUIDP/PMU/Ph-III/CMS/14872


Date: 19.01.2018

Sub: Construction Management System: Circular – 7
Ref: Guide lines for deflection test in sewer works.

In order to ensure the proper flow of sewage & to avoid silting due to deflection of PE pipe, "deflection test" in accordance to Section-6 of the contract agreement are mandatorily required in addition to other tests being conducted during execution of sewer network. In this regard, it is hereby directed that:

1. As per the contract "Deflection test shall be performed on all flexible gravity sewer pipe. The test shall be conducted after the sewer trench has been backfilled to the desired finished grade for a minimum of 30 days.
2. The deflection test shall be performed by pulling a rigid ball or pointed mandrel through the pipe without the aid of mechanical pulling device. The mandrel shall be cylindrical in shape, and constructed with an odd number of evenly spaced arms or prongs, minimum 9 in number and ball or mandrel shall have a minimum diameter equal to 92.5% of the actual inside diameter of the pipe.
3. The maximum allowable deflection shall not exceed 5% of the pipe internal diameter. The line will be considered acceptable if the mandrel can progress through the line without binding.
4. The time of the test, method of testing and the equipment to be used for the test shall be subjected to the approval of the Employers Representative & PIU in the concerned town.
5. Test shall be performed by the contractor at its expense without any direct compensation being made therefore unless it is mentioned in the BoQ, and he shall furnish all necessary equipment and material required.
6. In the event of test failure on any test section, the section shall be replaced, with all repair work subject to approval of the Employers Representative & PIU. The replaced section shall be re-tested for leakage and deflection in conformance with the specifications. All repair replacement, re-testing shall be at the contractor's expense.
7. A monthly status of Deflection Test along with test results shall be submitted to PMDSC Jaipur office through E.R. PMDSC Jaipur shall monitor the same closely and submit the summary reports to PMU on regular basis.

This circular shall be strictly abided by all the members of PIU, PMDSC & Contractor.


(Dr. Preetam B. Yashvant)
Project Director

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Copy to following for information and necessary action:

1. Addl. PD/ Financial Advisor/CE/ ACE/SE(WS)/ SE(WW)/SE-IV, PMU, RUIDP, Jaipur
2. SE/ EE, PIU-RUSDP, RUIDP are directed to submit the status of test conducted with photographs, incase of test not performed reason for the same and ensure the compliance in future.
3. POs/APOs, PMU, RUIDP, Jaipur to get the status and put up on concerned contract file.
4. Project Coordinator/Team Leader/Dy. CM/ACM, PMDSC/PSC _____ for strictly compliance.
5. Team Leader, CAPC, Jaipur
6. ACP, RUIDP, Jaipur to send by e-mail and put up the Guidelines on the website.


Superintending Engineer (WW)