n) Ensure that all valves in the pipeline are satisfactorily operating under working pressure.

o) Pressure testing shall begin by pumping slowly until the pressure reaches 1.5 times the rated pressure of the lowest rated component in the section of pipeline under test. This pressure shall be kept for maximum 24 hours or otherwise approved by the Engineer.

p) A maximum water loss of 3 liters per 1000m lengths per 25mm nominal bore per 24 hours shall be considered acceptable. For UPVC pressure pipeline ensure that the loss do not exceed 0.02 liter per mm diameter per kilometer per 24 hours for each bar of head applied. For UPVC non-pressure. pipe, do not accept pipeline if the total infiltration exceed 1 liter per day per millimeter of nominal internal diameter per kilometer of pipeline.

q) Keep a record of all tests and make them available for inspection. Hand over test records to the Engineer for approval.

r) Pipes or joints shall not be accepted if any leakage or damage is visible during an internal inspection.

s) If the result of any test or inspection does not comply with the requirements of the specification, the Contractor shall investigate the reason and carry out remedial work to the approval of the Engineer at no cost to DMAT. The pipeline shall then be re-tested. This process shall be repeated until the requirements of the specification are satisfied.

22.3.3 Deflection Measurement of Pipelines

a) Deflection measurement of pipelines shall be carried out at the discretion of the Engineer, but the Contractor shall be deemed to have included for deflection testing in his rates.

b) Excavation for or laying of uPVC pipelines shall not proceed until an approved device for gauging pipe deflections is on site.

   i. Use a suitable mechanized device to the approval of the Engineer for gauging pipe deflections. Maintain devices for gauging pipe deflections in good working order. Submit calibration certificates before every period of use. Use a regularly calibrated telescopic spring loaded graduated rod to measure percentage deflections in each diameter. Provide a suitable trolley to facilitate access into the pipe. Record all measurements.