## Testing:

Megger test of above-ground cables should be carried out after laying, glanding and termination activities have been completed.

## 9.5.3 Instrument Air Sub Header

This inspection is required to ensure that the instrument air sub headers supporting and infrastructure is complete and in accordance with the specification.

## 9.5.4 Instrument Impulse and Air Lines

Impulse/Air Lines:

This inspection is required to ensure that instrument impulse and Air lines have been installed in accordance with the specification and drawings.

Visual Inspection:

Tubing shall be checked to ensure that wall thickness and tubing material are proper for the service conditions. Disconnect the compression fitting to verify that the tubing is cleanly cut without burring, and that it rests firmly on the base of the fitting with ferrules present and properly positioned.

Pressure Testing of Air Lines:

Instrument air tubing and supply piping shall not be hydrostatically tested. Only clean, dry, oil-free air shall be used for the cleaning and testing of air tubing. Testing shall be performed in accordance with ISA RP 7.1 "Recommended Practice for Pneumatic Control Circuit Pressure Test". The CONTRACTOR shall verify that the 1/4-inch instrument air tubing leakage rate is less than 1.0 psi/100 feet/5 seconds.

Pressure Testing of Impulse Lines:

All process impulse piping shall require a full inspection and hydro (or pressure) test to at least 1.5 times the normal operating pressure. Suitable leak detecting agents (or assemblies) shall be used to test the integrity of the tubing.

## 9.5.5 Cabinet Installation

A full inspection of instrument system cabinets shall be carried out to assess any transport damage from transportation prior to installation. Any defects found during this inspection shall be reported to the ADWEA and noted on the delivery notes of the equipment prior to the supplier being informed.

-		Client	ADWEA					
		Project:	STANDARD SPECIFICATIONS FOR WATER WORKS					
		Title:	SPECIFICATION FOR INSTRUMENTATION & CONTROL SYSTEMS INSTALLATIONS					
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