Checklist and Test Procedures for Water Meters

A.1. This checklist applies to devices used for the measurement of water; generally applicable to, but not limited to, utilities type meters installed in residences or business establishments and meters installed in batching systems.

A.2. This checklist does not apply to:

(a) water meters mounted on vehicle tanks; or
(b) mass flow meters.

A.3. See also General Checklist requirements.

A.4. There is nothing stated as to what needs to be submitted for evaluation

A.5. There is nothing regarding what the CC will actually cover based on device(s) submitted

xx. Indicating and Recording Elements

Code References S.1.1.1. General

xx.1 A water meter shall be equipped with a primary indicating element and may also be equipped with a primary recording element. Such elements shall be visible at the point of measurement or be stored in non-volatile and nonresettable memory. The display may be remotely located provided it is readily accessible to the customer. **Yes ☐ No ☐ N/A ☐**

Code Reference: S.1.1.2. Units

xx.2 A water meter shall indicate and record, if the device is equipped to record, its deliveries in terms of liters, gallons or cubic feet or binary or decimal subdivisions thereof except batch plant meters, which shall indicate deliveries in terms of liters, gallons or decimal subdivisions of the liter or gallon only. **Yes ☐ No ☐ N/A ☐**

Code Reference: S.1.1.3. Value of the Smallest Unit

xx.3 The value of the smallest unit of indicated delivery and recorded delivery, if the device is equipped to record, shall not exceed the equivalent of:

xx.3.1. 50 L (10 gal) on utility type meters, **Yes ☐ No ☐ N/A ☐**

xx.3.2.. .2 L (1/10 gal) on batching meters delivering less than 375 L/min (100 gal/min), or **Yes ☐ No ☐ N/A ☐**

xx.3.3. 5 L (1 gal) on batching meters delivering 375 L/min (100 gal/min) or more. **Yes ☐ No ☐ N/A ☐**

Code Reference: S.1.1.4. Advancement of Indicating and Recording Elements.

xx.4. Primary indicating and recording elements shall be susceptible to advancement only by the mechanical operation of the device. **Yes ☐ No ☐ N/A ☐**

Code Reference: S.1.1.5. Return to Zero

xx.5 If the meter is so designed that the primary indicating elements are readily returnable to a definite zero indication, means shall be provided to prevent the return of these elements beyond their correct zero position. **Yes ☐ No ☐ N/A ☐**

Code Reference: S.1.2.1. Graduation Length

xx.6 Graduations shall be so varied in length that they may be conveniently read. **Yes ☐ No ☐ N/A ☐**

Code Reference: S.1.2.2. Graduation Width

xx.7	In any series of graduations, the width of a graduation shall in no case be greater than the width of the minimum clear interval between graduations, and the width of main graduations shall be not more than 50 percent greater than the width of subordinate graduations. Graduations shall in no case be less than 0.2 mm (0.008 in) in width.	**Yes □ No □ N/A □**

Code Reference: S.1.2.3. Clear Interval Between Graduations

xx.8	The clear interval shall not be less than 1.0 mm (0.04 in). If the graduations are not parallel, the measurement shall be made:	
xx.8.1.	(a) along the line of relative movement between the graduations at the end of the indicator, or	**Yes □ No □ N/A □**
xx.8.2.	(b) if the indicator is continuous, at the point of widest separation of the graduations.	**Yes □ No □ N/A □**

Code Reference: S.1.3.1. Indicator Symmetry

xx.9	The index of an indicator shall be symmetrical with respect to the graduations, at least throughout that portion of its length associated with the graduations.	**Yes □ No □ N/A □**

Code Reference: S.1.3.2. Indicator Length

xx.10	The index of an indicator shall reach to the finest graduations with which it is used, unless the indicator and the graduations are in the same plane, in which case the distance between the end of the indicator and the ends of the graduations, measured along the line of the graduations, shall be not more than 1.0 mm (0.04 in).	**Yes □ No □ N/A □**

Code Reference: S.1.3.3. Indicator Width

xx.11	The width of the index of an indicator in relation to the series of graduations with which it is used shall not be greater than: (a) the width of the widest graduation, and (b) the width of the minimum clear interval between graduations. When the index of an indicator extends along the entire length of a graduation, that portion of the index of the indicator that may be brought into coincidence with the graduation shall be of the same width throughout the length of the index that coincides with the graduation.	**Yes □ No □ N/A □**

Code Reference: S.1.3.4. Clearance

xx.12	The clearance between the index of an indicator and the graduations shall in no case be more than 1.5 mm (0.06 in).	**Yes □ No □ N/A □**

Code Reference: S.1.3.6. Parallax

45.13	Parallax effects shall be reduced to the practicable minimum.	**Yes □ No □ N/A □**

yy. Measuring Elements

Code Reference: S.2.1. Provision for Sealing

yy.1	Adequate provision shall be made for applying security seals in such a manner that no adjustment or interchange may be made of: (a) any measurement elements, and (b) any adjustable element for controlling delivery rate when such rate tends to affect the accuracy of deliveries. The adjusting mechanism shall be readily accessible for purposes of affixing a security seal.	**Yes □ No □ N/A □**

zz. Batching Meters Only

Code Reference: S.2.2.1. Air Elimination

zz.1	Batching meters shall be equipped with an effective air eliminator.	**Yes □ No □ N/A □**

Code Reference: S.2.2.2. Directional Flow Valves.

zz.2	Valves intended to prevent reversal of flow shall be automatic in operation.	**Yes □ No □ N/A □**

ww. Multi-Jet Meter Identification

ww.1	Multi-jet water meters shall be clearly and permanently marked as such on the device or identified on the Certificate of Approval.	**Yes □ No □ N/A □**