



# COMMONWEALTH of VIRGINIA

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State Health Commissioner

DEPARTMENT OF HEALTH  
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SUBJECT: NEW KENT COUNTY  
Water - Standard Specifications

December 8, 2016

Mr. Mike Lang, P.G.  
Assistant Director of Public Utilities  
County of New Kent  
7051 Poindexter Road  
New Kent, Virginia 23124

Dear Mr. Lang:

This office has reviewed the water utility portion of the "Public Utility Design Standards" dated May 2012 for the New Kent County Department of Public Utilities. Please address the following comments:

1. Section 00870 – "Standard Details"
  - a. Drawing No. 803 – Allowable Leakage Table – Water Lines
    1. Change the denominator in the equation for maximum allowable leakage from 133,200 to 148,000, to comply with AWWA C600-10 (Ductile Iron Pipe) and AWWA C605-13 (PVC pipe).
    2. Change the table of maximum allowable leakages for the various pipe diameters to be in accordance with the revised equation.
2. Section 02665 – "Water Distribution System"
  - a. Section 2.27 "Fire Hydrants"
    1. Add in an appropriate location ""Appurtenances with weepholes are subject to contamination when installed in areas subject to high groundwater, to flooding, to contaminant or pollutant spills, or in areas where surface water ponds". (I am unable to tell from Drawing 160 the type of drainage that is provided)

**b. Section 2.30 “Air release, Air/Vacuum, and Combination valves” and Drawing Nos. 115 and 116 – revise this section and these drawings to comply with the following:**

1. The open end of an air relief pipe shall be extended from the manhole or enclosing chamber to a point at least one foot above ground and provided with a screened, downward facing elbow. The exposed pipe and appurtenances shall be protected from vandalism and other damage.

2. When an above ground extension is not practical or desired, the open end of the relief pipe or blow-off shall be extended.

a. Where the pit or chamber is provided with proper drainage, and is not otherwise subject to high groundwater levels, surface flooding and ponding, and contaminant or pollutant spills, the open end may be provided with a screened, downward facing elbow. The valve chamber or pit shall be vented to provide sufficient air flow to allow proper operation of the air valve. Minimum chamber or pit vent diameter should be equal to or greater than the air valve inlet diameter. Air valves fitted with a smooth vent port and screened hood are allowable under these conditions.

b. Where the pit or chamber is not properly drained or is otherwise subject to high groundwater levels, surface flooding and ponding, and contaminant or pollutant spills, a manually operated valve or blow-off shall be used and the open end shall be fitted with a watertight cap or other means to prevent contamination from entering the pipe and valve.

c. The installation and testing specifications should require field verification of the groundwater elevation and surface water drainage by the owner's engineer prior to placement of the pit or chamber.

**c. Section 3.15 “Disinfection of Water Lines”**

1.3.15 C – Change the minimum flushing velocity from 2.5 ft/sec to 3.0 ft/sec, to comply with Section 4.2.2 in AWWA C-651-14.

2.3.15 F – Change the maximum distance between sampling points (for bacteriological samples) from 2,000 feet to 1,200 feet, to comply with Section 5.1.1.2. in AWWA C-651-14.

3.3.15.F (2) Change the minimum time between bacteriological samples from 24 hours to 16 hours, to comply with Section 5.1.1.1. in AWWA C-651-14.

4.3.15 G – Change the AWWA Standard from C601 to C651.

Please address these comments within 30 days of the date of this letter. **Submit one paper copy of the revised standard specification sheets and one CD copy (.pdf format) of the final standard specifications.**

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If we can assist you further, please contact me at 674-2880, Ext. 110 in the East Central Support Office.

Sincerely,

*Randy Morrissette*

Randall L. Morrissette, P.E.  
District Engineer  
Office of Drinking Water

cc: VDH, ODW – Central Office