

**LETTER TO INDUSTRY**  
**LTI #. 00000003**

**DATE:** August 24, 2010

**DCSM REFERENCE:** Article 5  
 Section 5-330.9 C

**SUMMARY OF ISSUE/TOPIC:** Leak Testing Formula Changes

**EFFECTIVE DATE:** Immediately

**POLICY / REQUIREMENTS / GUIDELINE:** Change the American Water Works Association’s (AWWA) standard reference on Page 5-29 of the City of Manassas Design and Construction Standards Manual (DCSM) from “Table 6 of AWWA C600.82” to Table 5A of AWWA C600-05.

Change the formula on page 5-29 to the formula below:

$$L = \frac{SD \sqrt{P}}{148000}$$

- L = Allowable leakage in gallons/hour
- S = Total length of pipe being tested in feet
- D = Nominal diameter of the pipe in inches
- P = Average test pressure during testing in pounds per square inch (gauge pressure)

Change the table on page 5-29 to the table below:

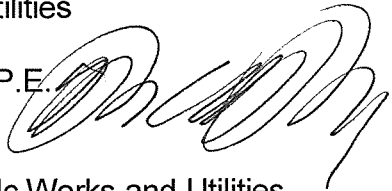
Avg. Test Pressure psi (Bar)	ALLOWABLE LEAKAGE PER 1,000 FT OF PIPE LINE * - GPH												
	Normal Pipe Diameter - in.												
	3	4	6	8	10	12	14	16	18	20	24	30	36
250 (17)	0.32	0.43	0.64	0.85	1.07	1.28	1.50	1.71	1.92	2.14	2.56	3.21	3.85
225 (16)	0.30	0.41	0.61	0.81	1.01	1.22	1.42	1.62	1.82	2.03	2.43	3.04	3.65
200 (14)	0.29	0.38	0.57	0.76	0.96	1.15	1.34	1.53	1.72	1.91	2.29	2.87	3.44
175 (12)	0.27	0.36	0.54	0.72	0.89	1.07	1.25	1.43	1.61	1.79	2.15	2.68	3.22
150 (10)	0.25	0.33	0.50	0.66	0.83	0.99	1.16	1.32	1.49	1.66	1.99	2.48	2.98
125 (9)	0.23	0.30	0.45	0.60	0.76	0.91	1.06	1.21	1.36	1.51	1.81	2.27	2.72
100 (7)	0.20	0.27	0.41	0.54	0.68	0.81	0.95	1.08	1.22	1.35	1.62	2.03	2.43

*If Council Members have questions, you are urged to call the staff person who prepared this agenda statement prior to meeting.*

**BACKGROUND:** This change updates the DCSM reference, formula, and table 5A to match the current American Water Works Association's (AWWA) standard C600-05

**CONTACT:** Patrick Moore, P.E.

**DEPARTMENT:** Public Works/Utilities

**MANAGER APPROVAL:** Michael Moon, P.E. 

**MANAGER TITLE:** Director of Public Works and Utilities