



CITY OF SAN ANTONIO
San Antonio Fire Department – Fire Prevention Division
MEMORANDUM



TO: San Antonio Fire Department and Development Services Department Associates

FROM: Carl Wedige – Deputy Fire Chief – SAFD, Fire Marshal

DATE: July 09, 2014

FILE: Code Interpretation Manual

INTERPRETATION NUMBER: CI2014-002 (*amended 7/09/2014*)

TITLE: Calculating fire flow when sizing combination domestic and fire water lines in Group R-2 projects.

CODE EDITION: 2012 International Fire Code (IFC), as adopted and amended by the City of San Antonio (COSA)

SECTION: 2012 IFC Sections 104.1, 507.3, 507.4, 507.5.7 (COSA Amendments)

PURPOSE: To clarify which water demands shall be included when hydraulically calculating combination private domestic and fire water lines in Group R-2 projects.

QUESTION 1: Is the domestic water demand required to be included when hydraulically calculating and sizing a private fire main where not used in combination with a private domestic water supply?

ANSWER 1: No.

QUESTION 2: Is the domestic water demand required to be included when hydraulically calculating and sizing a private fire main used in combination with a private domestic water supply?

ANSWER 2: Yes. 2012 IFC Section 507.3, as adopted and amended by COSA, indicates “Fire Flow requirements for buildings or portions of buildings and facilities shall be as per Appendix B of the International Fire Code or other approved method as determined by the Fire Marshal.” If a combination domestic and fire water line is utilized, the following demands shall be included in the design calculations, as applicable to the subject system:

1. Minimum system design flow:
 - a. As required by Appendix B of the IFC

- b. The fire suppression system demand including inside and outside hose streams per the applicable NFPA standards OR,
 - c. The fire standpipe demand.
2. The maximum expected peak domestic demand flow for the building being calculated and any buildings on the combination main utilizing one of the following methods:
- a. Methods already included in an applicable NFPA standard such as Table A.9.6(a) and A.9.6(b) of NFPA 13R, 2010 edition, OR
 - b. San Antonio Water System's *Utility Service Regulations* adopted February 18, 2003 and all subsequent amendments. Demand shall be 0.75 gallons per minute per dwelling unit being supplied by the combination loop, OR
 - c. Other method approved by the Fire Marshal on a case-by-case basis.

QUESTION 3: Is domestic demand for all buildings served by the combination private domestic and fire water line required to be included?

ANSWER 3: Yes. Where no provisions are made to prevent the domestic water flow, the overall domestic demand on the combination line must also be included.

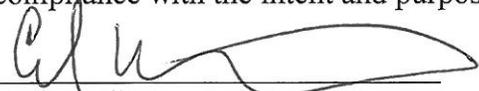
QUESTION 4: Does this policy apply to NFPA 13 sprinkler systems when the standard specifically allows domestic demands to be ignored when determining the size of combined private domestic and fire lines (such as for all looped lines or dead-end lines that are 4-inch diameter or larger)?

ANSWER 4: No.

QUESTION 5: Does this policy apply to other types of building occupancies or developments that do not include Group R-2 uses such as office parks, industrial parks, or single-family home developments?

ANSWER 5: No.

Per IFC 104.1, the fire code official is authorized to render interpretations of this code, and adopt policies, procedures, rules and regulations in order to clarify the application of its provisions. Such interpretations, policies, and procedures, rules and regulations shall be in compliance with the intent and purpose of this code.


Carl Wedige
Deputy Fire Chief - San Antonio Fire Department
Fire Marshal