CRR POLICY 1316: FIRE FLOW REDUCTIONS IN SPRINKLERED BUILDINGS

Created: August 6, 2018 Revised: n/a Effective Date: Immediate
Community Risk Reduction Division – 928-204-8926

This policy is promulgated in accordance with Section 104.1 of the 2012 International Fire Code (IFC) and is an official interpretation of Appendix "B" Section B105 of the 2012 IFC.

Section B105 of the fire code states;

B105.1 One- and two-family dwellings. The minimum fire flow and flow duration requirements for one and two family *dwellings* having a fire-flow calculation area that does not exceed 3,600 square feet (344.5 m^2) shall be 1,000 gallons per minute (3785.4 L/min) for 1 hour. Fire-flow and flow duration for *dwellings* having a fire-flow calculation area in excess of 3,600 square feet (344.5m^2) shall not be less than that specified in Table B105.1.

> **Exception:** A reduction in required fire-flow of 50 percent, as *approved*, is allowed when the building is equipped with an *approved automatic sprinkler system*.

B105.2 Buildings other than one and two-family dwellings. The minimum fire-flow and flow duration for buildings other than one and two family *dwellings* shall be as specified in Table B105.1.

> **Exception:** A reduction in required fire-flow of up to 75 percent, as *approved*, is allowed when the building is provided with an *approved automatic sprinkler system* installed in accordance with Section 903.3.1.1 or 903.3.1.2. The resulting fire-flow shall not be less than 1,500 gallons per minute (5678 L/min) for the prescribed duration as specified in Table B105.1.

The fire code makes it clear that these deductions *may* be allowed but are not a forgone conclusion. In an effort to consistently apply this section of the fire code, the Fire Marshal has determined that the following fire flow reductions shall be applied as follows;

One & two family dwellings shall receive a 50% reduction in fire flows when sprinklers are present.

In buildings other than one & two family dwellings, the reductions awarded for fire sprinklers shall be based on the type of construction used as follows;

- Type V-B 50%
- Type IIB & IIIB 60%
- Type IV & V-A 65%
- Type IIA & IIIA 70%
- Type IA & IB 75%

NOTE: When determining the number of required hydrants and spacing in table C105.1, the fire flow number after applying the allowed reductions is used.

Any comments or questions regarding the above information may be submitted to:
Community Risk Reduction Division
Sedona Fire District
2860 Southwest Drive
Sedona, AZ 86336

crm@sedonafire.org