

CRM POLICY 2017-06: BATTERY LOAD TESTING FOR FIRE ALARM SYSTEMS

Created: July 6, 2017 Revised: n/a Effective Date: Immediate
Community Risk Management 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 Section 14.4.2.2 of the 2010 edition of NFPA 72.

The following shall apply to functional testing of new and modified fire alarm systems:

Section 14.4.2.2 of the 2007 edition of NFPA 72 reads as follows: “All primary power supplies shall be disconnected...general alarm systems shall be operated for 5 minutes, and emergency voice communication systems for 15 minutes.” This section clearly outlines the full-load alarm tests required for fire alarm systems during functional testing. Therefore, it is the opinion of the Fire Marshal that fire alarm systems (newly installed, modified or additions to) shall be subject to a battery test to ensure proper operational capabilities of the system. The following is the Sedona Fire District Community Risk Management Division’s policy on when and how this testing will occur:

- 1) For all new fire alarm systems:
 - a. Primary power shall be disconnected 24 hours prior to the full-load alarm test. Trouble signal transmission shall be verified at this time.
 - b. At the conclusion of the 24 hour stand-by period, the full-load alarm test shall be initiated for 5 or 15 minutes (dependent on the type of system).
 - c. Power shall be restored to the system at the conclusion of the full-load alarm test.
- 2) For all modified fire alarm systems:
 - a. Primary power shall be disconnected 24 hours prior to the full-load alarm test for the area that was modified. Trouble signal transmission shall be verified at this time.
 - i. If the area of modification cannot be isolated, then the power supply or control panel supplying the area of modification shall be disconnected from primary power.
 - b. At the conclusion of the 24 hour stand-by period, the full-load alarm test shall be initiated for 5 or 15 minutes (dependent on the type of system).
 - c. Power shall be restored to the system at the conclusion of the full-load alarm test.
- 3) For all additions to fire alarm systems:
 - a. Primary power shall be disconnected 24 hours prior to the full-load alarm test for the addition. Trouble signal transmission shall be verified at this time.
 - i. If the area of the addition is not isolated (e.g. a new power supply was not installed to serve the addition), then the power supply or control panel supplying the area of the addition shall be disconnected from primary power.
 - b. At the conclusion of the 24 hour stand-by period, the full-load alarm test shall be initiated for 5 or 15 minutes (dependent on the type of system).
 - c. Power shall be restored to the system at the conclusion of the full-load alarm test.

Any comments or questions regarding the above information may be submitted to:

Community Risk Management Division
Sedona Fire District
2860 Southwest Drive
Sedona, AZ 86336

crm@sedonafire.org