



MEMORANDUM

To: South Carolina Authority's Having Jurisdiction (AHJ's)

From: Shawn Stickle, Chief Deputy State Fire Marshal

Subject: "Cold Spark" Machines and Use of Pyrotechnics before a Proximate Audience

Date: March 22, 2022

The Office of State Fire Marshal has received multiple inquiries regarding the permitting requirements of "cold spark" machines, both indoors and outdoors, in front of a proximate audience for multiple events. As such, the Office of State Fire Marshal offers the following guidance in an effort to provide a consistent application of South Carolina Code of Laws, South Carolina Code of Regulations, and the South Carolina Fire Code (SCFC) with referenced standards.

The 2018 SCFC §5608.1 requires "outdoor fireworks displays, use of pyrotechnics before a *proximate audience* and pyrotechnic special effects [...] comply with Sections 5608.2 through 5608.10 and NFPA 1123 or NFPA 1126." Additionally, South Carolina Code of Laws requires the Office of State Fire Marshal to promulgate regulations pertaining to the use of fireworks.

The 2018 SCFC adopts the 2016 edition of NFPA 1126 through reference. 'NFPA 1126, *Standard for the Use of Pyrotechnics Before a Proximate Audience*, was developed in response to a recognized need for a document to provide guidance to public safety officials for the safe use of pyrotechnic special effects at both indoor and outdoor locations. The purpose of this standard is to provide requirements for reasonable protection for pyrotechnic operators, performers, support personnel, and proximate audiences where pyrotechnic special effects are used indoors and outdoors.'

NFPA 1126 §3.3.40 defines a Pyrotechnic Device as:

Any device containing pyrotechnic material or pyrotechnic effect simulation equipment and capable of producing a special effect as defined in this standard.

NFPA 1126 §3.3.41 defines Pyrotechnic Device Effect Simulation Equipment as:

Equipment that uses a chemical mixture, heat source, and the introduction of oxygen to initiate or maintain combustion and is used to produce visible or audible effects by combustion, deflagration, or detonation.

Therefore, the use of "cold spark" machines in front of a proximate audience would require pyrotechnic display permits and licensure as an unrestricted or indoor pyrotechnic operator per South Carolina Code of Laws §23-35-45 and South Carolina Code of Regulations, promulgated by the Office of State Fire Marshal. If you have any additional questions regarding this subject, pyrotechnic operator licenses, or the indoor/outdoor pyrotechnic permitting process through State Fire's new online Informational Management System (IMS), please contact Chief Stickle at 803-834-0944 or shawn.stickle@llr.sc.gov.

