NFPA®

Code for the Manufacture of Model Rocket and High-Power Rocket Motors

2017



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NFPA®1125

Code for the

Manufacture of Model Rocket and High-Power Rocket Motors

2017 Edition

This edition of NFPA 1125, *Code for the Manufacture of Model Rocket and High-Power Rocket Motors*, was prepared by the Technical Committee on Pyrotechnics. It was issued by the Standards Council on May 13, 2016, with an effective date of June 2, 2016, and supersedes all previous editions.

This edition of NFPA 1125 was approved as an American National Standard on June 2, 2016.

Origin and Development of NFPA 1125

With the increased interest in high power rocketry, the Technical Committee on Pyrotechnics believed that public safety would be best served by the development of a code relating to the manufacture of model and high power rocket motors rather than relying on the provisions of NFPA 1124, *Code for the Manufacture, Transportation, and Storage of Fireworks.* NFPA 1124 pertains to the manufacture of fireworks, much of which is not applicable to the manufacture of model rocket and high power rocket motors.

In 1988, the Technical Committee developed the first edition of NFPA 1125 for model rocket motors only. However, by 1995, the use of high power rocket motors became important as a distinction from the model rocketry sector of the public. The scope of NFPA 1125 was expanded to address both model and high power rocket motor manufacture. NFPA 1125 included requirements developed by the Committee to promote safety in the manufacture of model rocket motors and also the manufacture of high power rocket motors.

For the 2001 edition, the Technical Commit ee incorporated changes updating regulatory provisions, which made the code compatible with industry practices and consistent with NFPA 1122, *Code for Model Rocketry*, and NFPA 1127, *Code for High Power Rocketry*. The revision also included changes to conform with the NFPA *Manual of Style* for technical committee documents.

The 2007 revision of the code included updates to definitions for coordination with the rocketry documents and to be consistent with the NFPA Glossary of Terms.

The Technical Committee modified the definition of and design requirements for hybrid propellant high power rocket motors to allow the use of liquid fuels. The Committee also added a requirement for labeling the casing of reloadable rocket motors with the maximum number of times the casing can be reused.

The 2012 edition of the code contained updates of extracted definitions and updates to U.S. Bureau of Alcohol, Tobacco, and Firearms (BATF) regulatory citations applicable to various provisions within the code. The Technical Committee amended the definitions for *high power rocket motor* and *model rocket motor* in order to differentiate the two motors and to clarify what properties must be satisfied to achieve certification as a model rocket motor. Based upon experience from certification testing of motors and metallurgical studies, the Committee permitted higher casing temperatures under limited applications.

The Technical Committee also clarified the classification for "G" power class motors, which were either high power rocket certified or model rocket certified, depending upon conditions not apparent to store owners or consumers. The Committee also added requirements for certification testing of a user-selectable delay motor system for model and high power rocket motors.

The 2017 edition removes the requirement for sprinklers in mixing rooms. The Committee has added a requirement for instructions provided to the consumer to be part of the overall set of material reviewed by the testing organization. Additional changes clarify code requirements.