

Executive Summary

Proper design of chimney top devices is essential to ensure the safety of residential and commercial buildings against fire. Those chimney top devices include exhaust terminations, rain caps, decorative shrouds, chimney-top dampers and spark arrestors. However, information and provisions for such design is sporadic among existing International Codes. NFPA 211 is a major source of such information that is currently used for such design. Nevertheless, there exist gaps between the available information in International Codes and NFPA 211. This study is a comprehensive review of the current requirements and prescribed applications of chimney top devices throughout numerous international codes. The reviewed codes include International Building Code, International Residential Code, International Mechanical Code, International Fuel Gas Code, International Existing Building Code, and International Plumbing Code. The study pertains to solid-fuel, oil-burning and gas-burning chimney/vent systems including fireplaces and heat producing appliances. Through this study, the existing gaps between international codes and NFPA 211, as related to top devices and venting system, are identified and summarized.