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② VAC Number/Chapter Title: 16VAC25-50

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Requested by: Holly Raney, Regulatory Coordinator, 804.371-2631

Print Name/Telephone Number of Agency Regulatory Coordinator

Holly Raney

Signature of Agency Regulatory Coordinator

March 1, 2017

Date

Approved:

Jane Chaffin
Registrar of Regulations

7-13-17

Date

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NFPA® 85
Boiler and
Combustion Systems
Hazards Code
2015 Edition



NFPA, 1 Batterymarch Park, Quincy, MA 02169-7471, USA
An International Codes and Standards Organization

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NFPA® 85

Boiler and Combustion Systems Hazards Code

2015 Edition

This edition of NFPA 85, *Boiler and Combustion Systems Hazards Code*, was prepared by the Technical Committees on Fluidized Bed Boilers, Fundamentals of Combustion Systems Hazards, Heat Recovery Steam Generators, Multiple Burner Boilers, Pulverized Fuel Systems, Single Burner Boilers, and Stoker Operations and released by the Correlating Committee on Boiler Combustion System Hazards. It was issued by the Standards Council on November 11, 2014, with an effective date of December 1, 2014, and supersedes all previous editions.

A Tentative Interim Amendment (TIA) to 8.9.2 was issued on November 11, 2014. For further information on tentative interim amendments, see Section 5 of the Regulations Governing the Development of NFPA Standards, available at: <http://www.nfpa.org/regs>

This edition of NFPA 85 was approved as an American National Standard on December 1, 2014.

Origin and Development of NFPA 85

NFPA 85 has a long history of documents that were combined to form the present-day NFPA 85. (See Annex M, which is a flowchart depicting the complex development of NFPA 85.) The first of these documents, in 1924, was NBFU 60, "Regulations of the National Board of Fire Underwriters for the Installation of Pulverized Fuel Systems as Recommended by the National Fire Protection Association," which changed from an NBFU/NFPA document to an NFPA code in 1946.

The 2001 edition of NFPA 85 was a compilation of the following six standards:

NFPA 8501, *Standard for Single Burner Boiler Operation*

NFPA 8502, *Standard for the Prevention of Furnace Explosions/Implosions in Multiple Burner Boilers*

NFPA 8503, *Standard for Pulverized Fuel Systems*

NFPA 8504, *Standard on Atmospheric Fluidized-Bed Boiler Operation*

NFPA 8505, *Standard for Stoker Operation*

NFPA 8506, *Standard on Heat Recovery Steam Generator Systems*

In the 2001 edition, significant new material was added for multiple burner boilers, including requirements for reburn systems. For heat recovery steam generators, the minimum purge flow requirements prior to starting the combustion turbine were reduced.

The 2004 edition was reorganized to provide administrative requirements in Chapters 1, 2, and 3 and common requirements in Chapter 4, Fundamentals of Boiler Combustion Systems. Subsequent chapters covered the specific requirements for each of the boiler and combustion systems covered by the document. The 2004 edition also provided new requirements that addressed selective catalytic reduction (SCR) systems for multiple burner boilers.

In the 2007 edition, Annex M was added to assist users to better understand the complex development of what is now known as NFPA 85. Chapter 4 in the 2007 edition also included new requirements for flue gas path auxiliary systems and flame proving, along with supporting annex material.

The 2007 edition recognized the use of valve proving systems for single burner boilers in Chapter 5. Furnace structural design requirements for multiple burner boilers were added to Chapter 6 and account for the impact of booster fans. Implosion protection was clarified as not being required on units that have no fan in the flue gas stream downstream of the boiler. In conjunction with those changes, a definition of *booster fan* was added to Chapter 3. New requirements for flue gas path auxiliary systems were added to Chapters 6 and 7 for multiple burner boilers and fluidized-bed boilers, respectively. New requirements were added for lance and burner safety shutoff valves on fluidized-bed boilers.