

NFPA[®]

655

**Standard for
Prevention of Sulfur Fires
and Explosions**

2017



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ISBN: 978-145591588-0 (Print)
ISBN: 978-145591589-7 (PDF)

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NFPA® 655

Standard for

Prevention of Sulfur Fires and Explosions

2017 Edition

This edition of NFPA 655, *Standard for Prevention of Sulfur Fires and Explosions*, was prepared by the Technical Committee on Handling and Conveying of Dusts, Vapors, and Gases and released by the Correlating Committee on Combustible Dusts. It was issued by the Standards Council on November 11, 2016, with an effective date of December 1, 2016, and supersedes all previous editions.

This edition of NFPA 655 was approved as an American National Standard on December 1, 2016.

Origin and Development of NFPA 655

This standard was first presented to the Association as a progress report in 1938 by the Committee on Dust Explosion Hazards. It was tentatively adopted in 1939. After some revision, it was officially adopted in 1940. Amendments were adopted in 1946, 1947, 1959, 1968, and 1971.

In 1976, responsibility for the document was transferred to the Technical Committee on Fundamentals of Dust Explosion Prevention and Control. The Technical Committee completely revised the 1971 edition to effect minor technical amendments and to editorially revise the document to comply with the NFPA *Manual of Style*.

Due to limited technological changes in this subject area between 1982 and 1988, the Committee reconfirmed the text as it had appeared in the 1982 version. Editorial changes and changes to allow the document to adhere more closely to the 1986 edition of the NFPA *Manual of Style*, were incorporated into the 1988 edition.

For the 1993 edition, the Committee made minor revisions to Chapter 2 for handling finely divided sulfur in bulk and minor revisions to the fire-fighting procedures to be used when fighting fires involving sulfur.

The 2001 edition contained editorial changes associated with incorporation of the 2000 edition of the *Manual of Style for NFPA Technical Committee Documents*. The Committee also made minor revisions to Chapter 6 to address operating precautions for pits and tank sections and to clarify protection for covered liquid sulfur storage tanks.

The 2007 edition included a complete revision of the standard, which was highlighted by the addition of three new chapters and the revision of Chapter 4, which combined the requirements applicable to both finely divided and coarse sulfur. These chapters reflected the Committee's efforts to expand the dust hazard control requirements within the standard. The new chapters—Chapter 7, Fugitive Dust Control and Housekeeping; Chapter 8, Training and Procedures; and Chapter 9, Inspection and Maintenance—were based upon dust hazard evaluation and control processes found in NFPA 654, *Standard for the Prevention of Fire and Dust Explosions from the Manufacturing, Processing, and Handling of Combustible Particulate Solids*, 2006 edition. This edition also contained new requirements applicable to intermediate bulk containers (IBCs).

Revisions to the 2012 edition of NFPA 655 focused on updates to the requirements in Chapter 4 for solid sulfur to coordinate with combustible dust hazard assessment and control. Key changes included:

- (1) Definitions for *dust flash fire hazard area* and *dust explosion hazard area* were added.
- (2) Methods to determine where hazardous dust conditions exist were added to be consistent with NFPA 654.
- (3) Housekeeping requirements were updated to include preferred methods and guidance on cleaning frequency.
- (4) Requirements for contractors and subcontractors were added.

- (5) Personal protection equipment (PPE) requirements related to flash fire hazard protection were added.
- (6) Fire-fighting requirements were modified to reflect changes in equipment.
- (7) References were updated.
- (8) Annex commentary regarding flexible intermediate bulk containers (FIBC) use and cautions against static hazards were added.

For the 2017 edition, revisions include changes to definitions and other material within the standard to correlate with NFPA 654, clarification of the scope of the document and its relationship to NFPA 654, and changes to the requirements for the use of steam in fire fighting.