



Dusty Trail

Bob Taylor

Fugitive and
Combustible Dust

Set for the big screen...

- Coal from mine to boiler
- Coal in rail cars, barges, trucks, & open containers
- Hazards
 - Infrastructure
 - Fire or explosion
 - Health
- Characters
 - Coal
 - Regulators
 - Interested parties
 - End-users



Scene 1: Chemical Safety Board



Between 1980 - 2005



Scene 2: OSHA

OSHA Enforcement Activity



Statistics

from last 3 years inspections 2010

- 1566 Federal & 423 State inspections
- 7053 Federal & 2198 State violations issued
 - 5209 Federal & 880 State were serious violations
 - **55** Inspections were at **electric services** locations (*one of the low number with the high being 555 at woodworking locations*)
- \$19 million in fines
- 542 Housekeeping violations
- 521 Hazardous Communications violations
- 241 Electrical violations



OSHA's Standard Setting Process

Negotiated Rulemaking

Petitions from Government, Groups, and Individuals with Interest to begin to modify, amend, or revoke.

NACOSH Advisory Committee

ACCSH Advisory Committees

Ad-Hoc Committee or NIOSH Appointed to Address Special Areas of Concern

Rule is written and Submitted for comment

OSHA Background Work Continues
Including Drafting Standard And Checking To Ensure Process Adherence

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NPRM.
Notice of Proposed Rulemaking.
Purpose is to solicit comments precluding adoption.

OMB

Final Rule Issued

No Standard or Amendment Need be issued

Determining the extent of a particular hazard, potential protective measures, and costs/benefits of strategies.

Small Business Enforcement Review Fairness Act ANALYSIS

RFI. Request for Information or **PRE-RULE**

Stake-Holders Meetings
12/2009
1/2010

ANPRM.

Advance Notice of Proposed Rulemaking.
Purpose is to solicit information for use in drafting a proposal

FEDERAL REGISTER

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10/21/09

OSHA Combustible Dust NEP Applies

Combustible Dust and the 2012 Hazard Communication Standard

Specifically Covered

Not Defined

Labels are Required For:

- Combustible Dusts
- Solids That Can Create Combustible Dust When Processed

Label Verbiage: “Warning. May form combustible dust concentrations in air”

SDS Replace MSDS

16 Section SDS Mandated



Scene 3: H.R. 522

- Introduced February 8, 2011
- The Worker Protection Against Combustible Dust Explosions and Fires Act of 2011
- Require Secretary of Labor to issue an interim standard regarding worker exposure to combustible dust



Scene 4: Impact Study – Industry Specific

- Approximately 10 industries participated (*include coal-fired power plant*)
- Complexity of industry
- PHA – include design basis and focus on fire/explosion prevention
- Pulverizers/mills
- Economic impact
- Noted value in participating in Users' Group



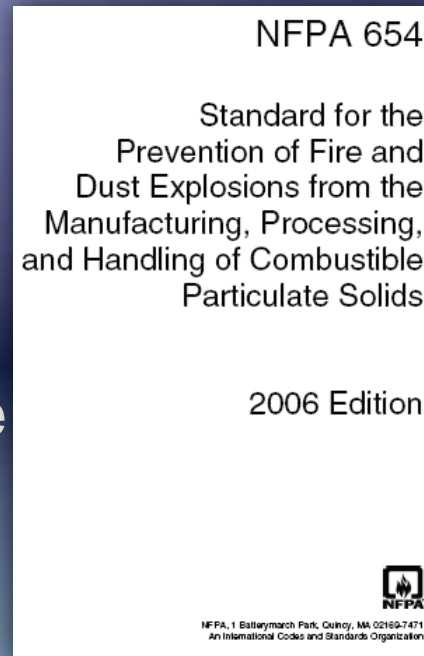
Scene 5: OSHA Update

- New federal standard/rule is in the works
- No time frame for completion
- Placed on “Long Term” agenda
- Economic analysis
- NEP still in use

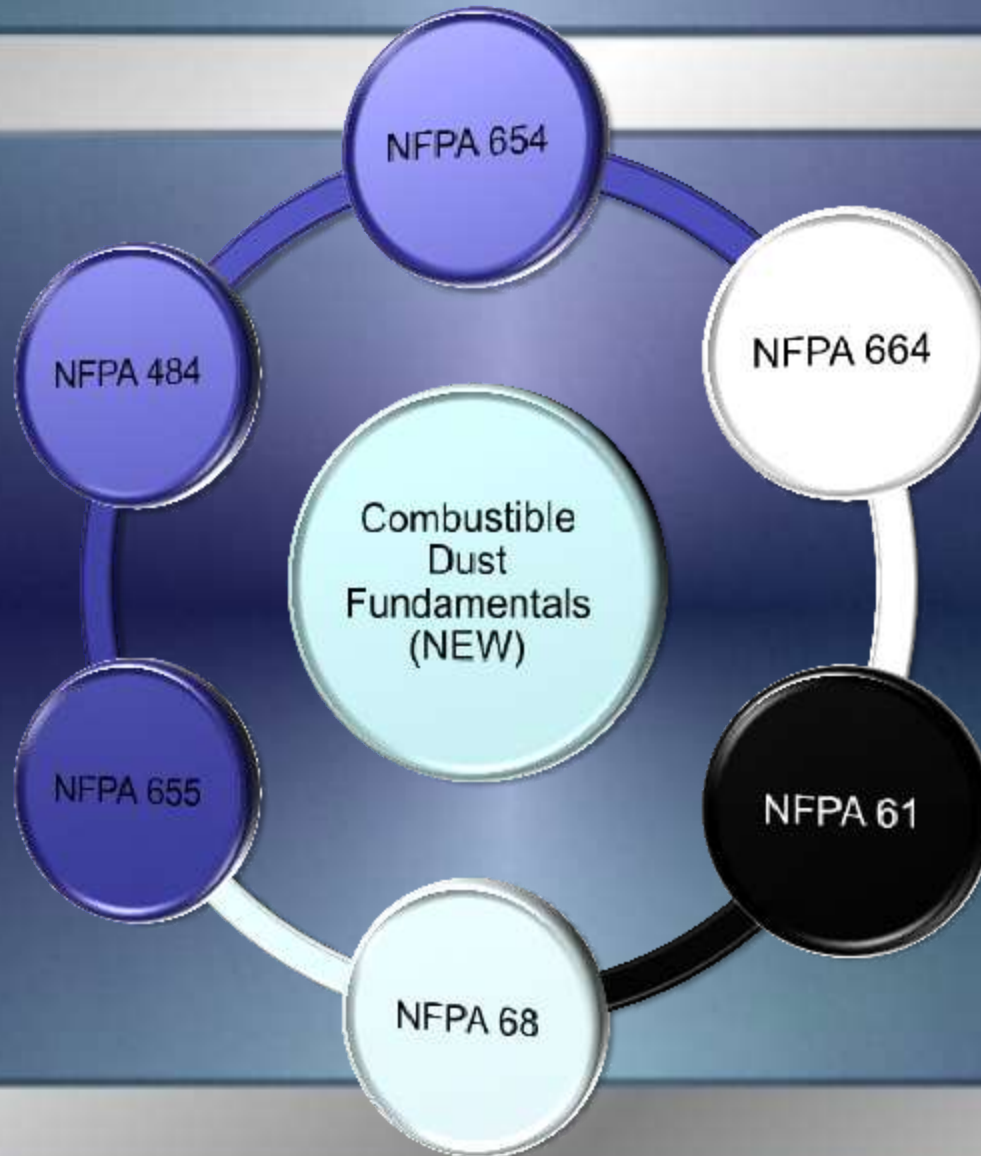


Scene 6: NFPA 654 Update

- Sent back to committee
- Committee reviewed all previous comments (ROP Phase)
- NFPA 654 is in the 2012 revision schedule
- The public was able to comment again through the revision process



Scene 7: NFPA Standards





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| Code No. | Code Name |
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| NFPA 1 | Fire Code |
| NFPA 2 | Hydrogen Technologies Code |
| NFPA 3 | Standard on Commissioning and Integrated Testing of Fire Protection and Life Safety Systems |
| NFPA 10 | Standard for Portable Fire Extinguishers |
| NFPA 11 | Standard for Low-, Medium-, and High-Expansion Foam |
| NFPA 11A | Standard for Medium- and High-Expansion Foam Systems |
| NFPA 11C | Standard for Mobile Foam Apparatus |
| NFPA 12 | Standard on Carbon Dioxide Extinguishing Systems |
| NFPA 12A | Standard on Halon 1301 Fire Extinguishing Systems |
| NFPA 13 | Standard for the Installation of Sprinkler Systems |
| NFPA 13D | Standard for the Installation of Sprinkler Systems in One- and Two-Family Dwellings and Manufactured Homes |
| NFPA 13E | Recommended Practice for Fire Department Operations in Properties Protected by Sprinkler and Standpipe Systems |
| NFPA 13R | Standard for the Installation of Sprinkler Systems in Residential Occupancies up to and Including Four Stories in Height |
| NFPA 14 | Standard for the Installation of Standpipes and Hose Systems |
| NFPA 15 | Standard for Water Spray Fixed Systems for Fire Protection |
| NFPA 16 | Standard for the Installation of Foam-Water Sprinkler and Foam-Water Spray Systems |
| NFPA 17 | Standard for Dry Chemical Extinguishing Systems |
| NFPA 17A | Standard for Wet Chemical Extinguishing Systems |

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Scene 8: Proactive and Reactive

Strategy Approaches

Proactive - acting in anticipation of future problems, needs, or changes.

Reactive - Reacting to the past rather than anticipating the future, not predictive; readily responsive to a stimulus.



Proactive

- When the decision has been made to start burning sub-bituminous coals begin by doing the following:
- Plant assessments performed by specialists
- Site visits to similar plants burning sub-bituminous coals
- Involvement in PRB Coal Users' Group
- Developed and prioritized a list of required plant modifications & operating practice changes and their respective costs
- Cooperative effort between specialists, plant and project personnel



Proactive

- Train all employees and contractors on the hazards associated with handling coals
- Sub-bituminous coals demand respect and needs to be managed
- Follow the recommendations made by the experts
- The cost of one major incident would pay for most of the upgrades
- Use an integrated approach to sub-bituminous coals

Training and Management



Proactive

- Upgrade transfer points with engineered chutes to eliminate dust laden induced air
- Seal head chutes
- Install the latest technologies in skirt board and seals
- Install high quality primary and secondary belt cleaners
- Install belt washers on conveyor belts in enclosed areas
- Dust suppression on key transfer points

Containment



Proactive

- Major initial clean up and considerable manual effort on an ongoing daily basis
- Develop a housekeeping policy
- Install wash down hoses
- Install drains to accommodate the wash down water
- Paint walls in the coal handling system white
- Install metal halide light fixtures

Housekeeping



Results of Reducing Your Risks Through Coal Handling System Improvements

- Improved your Employee's Health & Safety
- Reduced Exposure to Catastrophic Events
- Improved Employee Moral
- Reduced Operating Costs



Reactive Strategy Approach

Compliancy - A feeling of contentment or self-satisfaction, especially when coupled with an unawareness of danger, trouble, or controversy.





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PRB Coal Users' Group

