



Cintas Combustible Lint and Dust Control Program

NFPA Symposium

September 21, 2011



Cintas Corporation

- World headquarters in Cincinnati, OH
- Operate 420 facilities in the US, Canada, Europe, Central America
- 30,000 employee-partners
- \$3.8 billion revenue in fiscal year 2011



Cintas Corporation

- Provide highly specialized services to 800,000 businesses throughout North America
 - Design, manufacture and implement corporate identity uniform programs
 - Facility services - entrance mats, restroom supplies, cleaning products
 - First aid & safety, fire protection services
 - Document management services

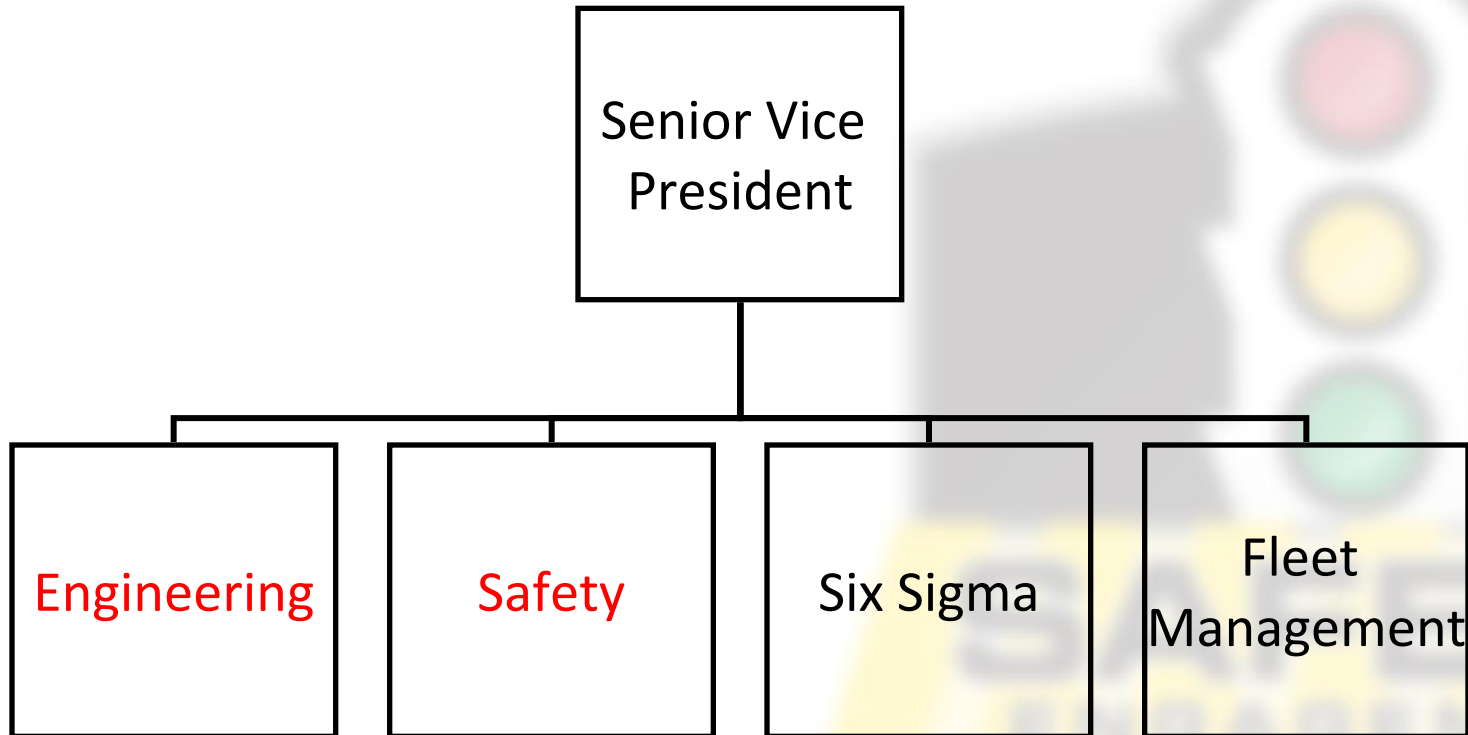


Background and Overview

- OSHA National Emphasis Program (NEP) on Combustible Dust
 - References NFPA 654
 - Limits on amount of dust and lint that can accumulate on horizontal surfaces (1/32 inch (thickness of a paper clip))
- Compliance not attainable at Cintas without a new strategy
 - Engineering and Safety worked together to develop new strategy



Cintas Corporation





Background and Overview

- Learned that another commercial laundry was cited by OSHA for excessive accumulations of textile lint
 - Citation referenced NFPA 654
 - Citations referenced KST test
- June 2009 submitted lint and paper dust samples to insurance company laboratory for KST testing
- Arranged for insurance company engineers to review pilot project



Background and Overview

- January 2010 – Document Management
 - 1910.22 citation for “class II combustible dust” on pipe surfaces and electrical equipment
 - 1910.178 operating PIT not suitable for atmosphere containing combustible dust
- May 2010 – Document Management
 - General Duty Clause – exposed to explosions/fire hazards from combustible paper dust in indoor dust collection system
- August 2010 attended Walt Frank combustible dust presentation at Mercer ORC meeting
 - Retained Walt Frank to review our program



Combustible Lint and Dust Program

- Supersonicaire fans
 - Identified at New Orleans **Clean Show**
 - Arranged meeting with manufacturer at Cintas plant
 - Ceiling mounted unit tested
 - Portable unit tested
 - Full pilot



Rental Division Policy

- Review of program by expert Walt Frank
 - Site visits
 - Documented program
- Rental Division policy created and implemented
 - Combustible material accumulation prevention
 - Housekeeping
 - Schedule
 - Cleaning tools
 - Training materials



Ceiling Mounted Fans Rental Division





Portable Fan Used in Rental Division Locations





Document Management Combustible Dust Control

- Combustible dust poses a hazard in Document Management Shredding facilities across the country.
- Initial cleanings were conducted prior to fan installations
- Office mezzanines were cleaned and walls were extended to ceiling to prevent dust spread and accumulation
- All equipment was shut down during fan installation to prevent sparks and potential for fires



Document Management Combustible Dust Control Fan





Document Management

Combustible Dust Control

- Fans significantly abate accumulation on lights, beams other horizontal surfaces
- Moving to intrinsic portable vacuums to reduce spark/fire risk (Walt Frank recommendation)
- Daily housekeeping program in place to prevent dust accumulations on floors and equipment



Document Management Dust Control - Next Steps

- Electrical panels, junction boxes and connections in dust prone areas dust tight
 - Electrical panels must be closed at all times and equipped with rubber/foam door seals
 - Junction boxes and fittings must have covers with no exposed gaps or openings
- Monthly maintenance and inspection requirements to ensure electrical enclosures are inspected and cleaned



QUESTIONS/COMMENTS

