

Contents

Chapter 1 Administration	33- 6	7.5 Recirculation of Exhaust	33-15
1.1 Scope	33- 6	7.6 Manifolding of Exhaust Ducts	33-15
1.2 Purpose	33- 6	7.7 Materials of Construction	33-15
1.3 Application	33- 6	7.8 Support of Exhaust Ducts	33-15
1.4 Retroactivity	33- 6	7.9 Exhaust Duct Access Openings	33-16
1.5 Equivalency	33- 7	7.10 Exhaust Fans and Drives	33-16
1.6 Units and Formulas	33- 7	7.11 Drying Areas	33-16
1.7 Enforcement (Reserved)	33- 7		
Chapter 2 Referenced Publications	33- 7	Chapter 8 Storage, Handling, and Distribution of Flammable and Combustible Liquids	33-16
2.1 General	33- 7	8.1 General	33-16
2.2 NFPA Publications	33- 7	8.2 Storage in Process Areas	33-16
2.3 Other Publications	33- 7	8.3 Mixing	33-16
2.4 References for Extracts in Mandatory Sections	33- 7	8.4 Distribution Systems — Piping	33-17
		8.5 Distribution Systems — General	33-17
Chapter 3 Definitions	33- 7	Chapter 9 Protection	33-18
3.1 General	33- 7	9.1 General	33-18
3.2 NFPA Official Definitions	33- 7	9.2 Continuous Spray Application Operations	33-18
3.3 General Definitions	33- 8	9.3 Ventilation Systems	33-18
Chapter 4 Location of Spray Application Operations	33- 9	9.4 Automatic Sprinkler Systems	33-18
4.1 General	33- 9	9.5 Automatic Carbon Dioxide, Dry Chemical, and Clean Agent Systems	33-19
4.2 Locations in Other Occupancies	33- 9	9.6 Portable Fire Extinguishers	33-19
Chapter 5 Construction and Design of Spray Areas, Spray Rooms, and Spray Booths	33- 9	9.7 Protection for Automated Powder Application Equipment	33-19
5.1 Walls and Ceilings	33- 9	9.8 Protection for Automated Liquid Electrostatic Spray Application Equipment	33-19
5.2 Conveyor Openings	33- 9	Chapter 10 Operations and Maintenance	33-19
5.3 Separation from Other Operations	33- 9	10.1 General	33-19
5.4 Movement of Powered Vehicles	33-10	10.2 Combustible Deposits	33-20
5.5 Vision and Observation Panels	33-10	10.3 High-Pressure Hose Lines	33-20
5.6 Ventilation	33-10	10.4 Maintenance Procedures	33-20
Chapter 6 Electrical and Other Sources of Ignition	33-10	10.5 Waste Containers	33-20
6.1 Scope	33-10	10.6 Clothing	33-20
6.2 General	33-10	10.7 Cleaning Operations	33-20
6.3 Electrical Area Classification	33-10	10.8 Solvent Distillation Units (Solvent Recyclers)	33-20
6.4 Electrical Devices in Spray Areas	33-12	10.9 Spontaneous Ignition Hazards	33-20
6.5 Electrical Devices Adjacent to Spray Areas	33-12	10.10 Chlorinated Solvents	33-21
6.6 Light Fixtures	33-13	10.11 Smoking	33-21
6.7 Static Electricity	33-14	10.12 Hot Work	33-21
6.8 Flexible Power Cords	33-14	Chapter 11 Automated Electrostatic Spray Equipment	33-21
6.9 Portable Electric Lights	33-14	11.1 Scope	33-21
Chapter 7 Ventilation	33-15	11.2 General	33-21
7.1 General	33-15	11.3 Automated Electrostatic Systems	33-21
7.2 Performance Requirements	33-15	11.4 Incendive Equipment	33-21
7.3 Make-Up Air	33-15		
7.4 Routing of Exhaust Ducts	33-15		



11.5	Listing and Approval of Equipment	33-22	15.11	Automated Electrostatic Powder Spraying Equipment	33-26
Chapter 12	Handheld Electrostatic Spray Equipment	33-22	15.12	Handheld Electrostatic Powder Spraying Equipment	33-26
12.1	Scope	33-22	15.13	Electrostatic Fluidized Beds	33-26
12.2	General	33-22	Chapter 16	Organic Peroxides and Plural Component Coatings	33-26
12.3	Handheld Apparatus	33-22	16.1	Scope	33-26
12.4	Electrical Components	33-22	16.2	General	33-26
12.5	Grounding	33-22	16.3	Prevention of Contamination	33-26
Chapter 13	Drying, Curing, and Fusion Processes	33-22	16.4	Storage of Organic Peroxides	33-26
13.1	General	33-22	16.5	Handling of Organic Peroxides	33-26
13.2	Spray Booths and Spray Rooms Used for Ambient Air Drying	33-22	16.6	Mixing of Organic Peroxides with Promoters	33-26
13.3	Spray Booths and Spray Rooms Used for Drying at Elevated Temperatures	33-22	16.7	Smoking	33-26
13.4	Flash-Off Areas	33-23	16.8	Trained Personnel	33-26
13.5	Ventilation	33-23	16.9	Material Safety Data Sheets	33-26
13.6	Warning Signs	33-23	Chapter 17	Styrene Cross-Linked Composites Manufacturing (Glass Fiber- Reinforced Plastics)	33-27
Chapter 14	Miscellaneous Spray Operations	33-23	17.1	Scope	33-27
14.1	Vehicle Undercoating and Body Lining	33-23	17.2	Resin Application Equipment	33-27
14.2	Preparation Workstations	33-24	17.3	Fire Protection	33-27
14.3	Limited Finishing Workstations	33-24	17.4	Resin Storage	33-27
Chapter 15	Powder Coating	33-25	17.5	Electrical and Other Hazards	33-27
15.1	Scope	33-25	17.6	Ventilation	33-27
15.2	General	33-25	17.7	Use and Handling	33-27
15.3	Applicability	33-25	Chapter 18	Training	33-27
15.4	Location	33-25	18.1	General	33-27
15.5	Protection	33-25	Annex A	Explanatory Material	33-27
15.6	Enclosures	33-25	Annex B	Determining Lower Flammable Limits	33-36
15.7	Electrical and Other Sources of Ignition	33-25	Annex C	Determining Ventilation Airflow for Powder Application Systems	33-37
15.8	Ventilation, Dust Collection, and Explosion Protection	33-25	Annex D	Fire Record	33-38
15.9	Drying, Curing, and Fusing Equipment	33-25	Annex E	Informational References	33-39
15.10	Operation and Maintenance	33-25	Index	33-40	