# REGULATION 12 MISCELLANEOUS STANDARDS OF PERFORMANCE RULE 4 SANDBLASTING

## INDEX

#### 12-4-100 GENERAL

- 12-4-101 Description
- 12-4-102 Multiple Nozzles

### 12-4-200 DEFINITIONS

- 12-4-201 Abrasives
- 12-4-202 Abrasive Blasting
- 12-4-203 Abrasive Blasting Equipment
- 12-4-204 Confined Blasting
- 12-4-205 Hydroblasting
- 12-4-206 Multiple Nozzles
- 12-4-207 Permanent Abrasive Blasting Operations or Equipment
- 12-4-208 Sandblasting
- 12-4-209 Source
- 12-4-210 Unconfined Blasting
- 12-4-211 Vacuum Blasting
- 12-4-212 Wet Abrasive Blasting
- 12-4-213 Brushoff Blasting
- 12-4-214 Steel or Iron Shot/grit

## 12-4-300 STANDARDS

- 12-4-301 Ringelmann 1 Limitation
- 12-4-302 Ringelmann 2 Limitation
- 12-4-303 Performance Standards For Abrasive Blasting For Traffic Markers
- 12-4-304 Performance Standards For Other Abrasive Blasting
- 12-4-305 Performance Standards For Abrasives
- 12-4-306 Certification of Abrasives
- 12-4-307 Abrasive Labeling By Suppliers
- 12-4-308 Facility Blasting Operations
- 12-4-309 Stucco and Concrete

## 12-4-400 ADMINISTRATIVE REQUIREMENTS (Not Included)

## 12-4-500 MONITORING AND RECORDS (Not Included)

## 12-4-600 MANUAL OF PROCEDURES

12-4-601 Appraisal of Visible Emissions

# REGULATION 12 MISCELLANEOUS STANDARDS OF PERFORMANCE RULE 4 SANDBLASTING

#### 12-4-100 GENERAL

- **12-4-101 Description:** The standards in this Rule are uniform throughout the State and apply to sandblasting operations other than permanent abrasive blasting operations or equipment. Visible emissions from permanent operations or equipment are controlled by Regulation 6.
- **12-4-102 Multiple Nozzles:** Emissions from unconfined blasting employing multiple nozzles shall be judged as a single source unless it can be demonstrated by the owner or operator that each nozzle, evaluated separately, meets the emission and performance standards provided for in this Rule.

#### 12-4-200 DEFINITIONS

- **12-4-201 Abrasives:** Any material used in abrasive blasting operations including but not limited to sand, slag, steel shot, garnet or walnut shells.
- **12-4-202 Abrasive Blasting:** The operations of cleaning or preparing a surface by forcibly propelling a stream of abrasive material against the surface.
- **12-4-203** Abrasive Blasting Equipment: Any equipment utilized in abrasive blasting operations.
- **12-4-204 Confined Blasting:** Any abrasive blasting conducted in an enclosure which significantly restricts air contaminants from being emitted to the ambient atmosphere, including but not limited to shrouding, tanks, drydocks, buildings and structures.
- **12-4-205 Hydroblasting:** Any abrasive blasting using high pressure liquid as the propelling force.
- **12-4-206 Multiple Nozzles:** More than one nozzle being used to abrasive blast the same surface in such close proximity that their separate plumes are indistinguishable.
- **12-4-207 Permanent Abrasive Blasting Operations or Equipment:** Abrasive blasting operations conducted, or abrasive blasting equipment located in a building which is used in whole or in part for abrasive blasting operations.
- **12-4-208** Sandblasting: Abrasive blasting.
- **12-4-209 Source:** The impact surface from any single abrasive blasting nozzle.
- **12-4-210 Unconfined Blasting:** Any abrasive blasting which does not conform with Sections 12-4-204 and 207.
- **12-4-211 Vacuum Blasting:** Any abrasive blasting in which the spent abrasive and surface material is immediately collected by a vacuum device.
- **12-4-212** Wet Abrasive Blasting: Any abrasive blasting using compressed air as the propelling force, which in the judgement of the APCO uses an amount of water adequate to minimize the plume.
- **12-4-213** Brushoff Blasting: A method of cleanup performed in order to achieve surface uniformity or impurity removal after wet blasting, hydroblasting, or vacuum blasting operations. (Adopted July 11, 1990)
- **12-4-214** Steel or Iron Shot/grit: Abrasives which meet either the Society of Automotive Engineers (SAE) recommended practices J827 and J444 or Steel Founders' Society of America Standards 21-68 or 20T-66, as those practices and standards existed on Feburary 24, 1984. (Adopted July 11, 1990)

#### 12-4-300 STANDARDS

**12-4-301 Ringelmann 1 Limitations:** Except as provided in Section 12-4-302 a person shall not discharge from any abrasive blasting, any air contaminant for a period or periods aggregating more than three minutes in any one hour which is as dark or darker than

No. 1 on the Ringelmann Chart. This section will apply if the applicable standards in sections 12-4-303 through 309 are not met. (Amended July 11, 1990)

- **12-4-302 Ringelmann 2 Limitations:** A person shall not discharge from any abrasive blasting, if he complies with applicable standards in Section 12-4-303 and Sections 12-4-305 through 307, any air contaminant for a period or periods aggregating more than three minutes in any one hour which is as dark or darker than No. 2 on the Ringelmann Chart.
- **12-4-303 Performance Standards For Abrasive Blasting ForTraffic Markers:** Surface preparation for raised traffic delineating markers and pavement marking removal using abrasive blasting shall comply with at least one of the following performance standards:
  - 303.1 Wet abrasive blasting, hydroblasting or vacuum blasting shall be used.
  - 303.2 Dry unconfined abrasive blasting for removal or surface preparation for immediate application of pavement markings of less than 93 m<sup>2</sup> (1,000 ft.<sup>2</sup>), or for surface preparation for raised traffic delineating markers shall use abrasives as defined in Sections 12-4-305 through 307.
- **12-4-304 Performance Standards For Other Abrasive Blasting:** Any abrasive blasting operation except as provided for in Section 12-4-303 and 305 through 309 shall comply with at least one of the following performance standards.
  - 304.1 Confined blasting shall be used.
  - 304.2 Wet abrasive blasting shall be used.
  - 304.3 Hydroblasting shall be used.
  - 304.4Dry unconfined blasting shall use abrasives as defined in Sections 12-4-305<br/>through 307.(Amended July 11, 1990)
- **12-4-305 Performance Standards For Abrasives:** All abrasives used for dry unconfined blasting shall comply with the following performance standards:
  - 305.1 Before blasting, the abrasive shall not contain more than 1% by weight material passing a #70 U.S. Standard sieve when tested in accordance with "Method of Test for Abrasive Media Evaluation," Test Method No. California 371-A. Certified abrasives re-used for dry unconfined blasting must conform with Section 12-4-305.1.
  - 305.2 After blasting, the abrasive shall not contain more than 1.8% by weight material five micron or smaller when tested in accordance with "Method of Test for Abrasive Media Evaluation", Test Method No. California 371-A. Certified abrasives re-used for dry unconfined blasting are exempt from Section 12-4-305.2
- **12-4-306 Certification of Abrasives:** A person shall not conduct dry unconfined blasting unless the abrasive(s) used in such operation have been certified by the ARB, on at least an annual basis, to comply with the performance standards set forth in Section 12-4-305. Any person who desires certification of an abrasive shall furnish to the ARB an adequate test sample, together with fees to defray the cost of testing. The ARB maintains an up-to-date list of certified abrasives.
- **12-4-307** Abrasive Labeling by Suppliers: All manufacturers and suppliers of abrasives certified for dry unconfined abrasive blasting shall legibly and permanently label the invoice, bill of lading and abrasive packaging or container with the following statement: "ARB certified for dry unconfined blasting."
- **12-4-308** Facility Blasting Operations: Confined blasting shall be used for all abrasive blasting operations at a facility except under the following conditions:
  - 308.1 When steel or iron shot/grit is used;
  - 308.2 When the item to be blasted exceeds 8 feet in height, 8 feet in width, or 10 feet in length;
  - 308.3 When the structure or surface is blasted at its permanent or ordinary location.

(Adopted July 11, 1990)

- **12-4-309 Stucco and Concrete:** Abrasive blasting of stucco and concrete shall be performed by wet blasting, hydroblasting, or vacuum blasting with the following exceptions, for which dry blasting may be used:
  - 309.1 Window and door returns and frames;
  - 309.2 Eaves, overhangs and ceilings;

- 309.3 Brush off blasting except for stucco surfaces;
- 309.4 Completely shrouded structures and blast areas that effectively control emissions;
- 309.5 Abrasive cleaning operations other than aggregate exposure or paint removal related to new concrete construction or repair activity if such operations are performed onsite. (Adopted July 11, 1990)

#### 12-4-600 MANUAL OF PROCEDURES

**12-4-601** The MOP contains procedures for appraising visible emissions.

(Adopted July 11, 1990)