

EXCERPTS FROM NFPA 484 - Standard for Combustible Metals 2012

DISCLAIMER:

The following excerpts from NFPA 484 – the Standard for Combustible Metals are guide lines for the safe handling of certain combustible metal dusts. This is not the complete standard and in no way replaces or absolves the generator of doing their due diligence. Dust analysis, safety and risk analysis, housekeeping procedures, fire and explosion protection and your local regulations are part of the comprehensive combustible dust program every generator should perform and implement. For a copy of the entire standard, please visit www.nfpa.org for the complete standard.

Chapter 8 – ALUMINUM

8.4.6 Powder Collection.

8.4.6.1* Collectors.

8.4.6.1.1 Dry-type collectors shall be located outside in a safe location and shall be provided with barriers or other means for protection of personnel.

8.7.3* Dust Collection.

8.7.3.4 Grinding operations shall not be served by the same dust collection system as buffing and polishing operations.

8.7.3.6.1 Grinders, buffers, and associated equipment with dust collectors utilized for processing aluminum shall be provided with a placard that reads as follows:

WARNING: Aluminum Metal Only — Fire or Explosion Can Result with Other Metals.

8.7.3.6.2 If the combustible aluminum dust collection system is to be used for other materials, the system shall be disassembled and thoroughly cleaned of all incompatible materials prior to and after its use.

8.7.3.21 Wet-Type Dust Collectors.

8.7.3.21.1.1 The cleaned air shall be permitted to be returned to the work area when tests conducted by an approved testing organization prove that the collector's efficiency is great enough to provide safety to both personnel and property safety in the particular installation, with regard to particulate matter in the cleaned air and accumulations of particulate matter and hydrogen in the work area. *(See 8.2.2.1.1 and 8.1.5.)*

8.7.3.21.1.2 The duct shall be as short and straight as possible and shall be designed to withstand the same explosion pressure as the wet-type dust collector.

8.7.3.21.2* The exhaust vent shall be inspected and cleaned frequently to prevent buildup of highly combustible deposits of metal dusts on the interior surfaces of the duct.

8.7.3.21.3.6* Disposal of Sludge from Water Wet-Type Dust Collectors.

(A) Sludge from water wet-type dust collectors shall be removed

at least once each day or more frequently if conditions warrant.

(B)* Covered, vented metal containers shall be used to transport the collected sludge for disposal.

(C) Sludge from wet-type dust collectors shall be permitted to be managed prior to disposal in accordance with applicable federal, state, and local regulations.

(D) Material removed from wet-type dust collectors shall be permitted to be mixed with an inert material (e.g., sand or material that is nonreactive with aluminum) in a volume ratio of five parts inert material to one part metal dust

Chapter 9 – MAGNESIUM

9.7.3.2 Wet-Type Dust Collectors.

9.7.3.1.4 The use of dry media-type collectors shall be prohibited.

9.7.3.2.9 Downdraft bench configuration collectors shall maintain no less than 90 m/min (300 ft/min) average worksurface capture velocity at each work station, with work-surface capture velocity determined as a function of nominal work surface area.

Chapter 14 – OTHER METALS

14.4 Powder Production.

14.4.1 Dust-Producing Operations.

14.4.1.1* Machines that produce fine particles of metal shall be provided with hoods, capture devices, or enclosures that are connected to a dust collection system having suction and capture velocity to collect and transport all the dust produced.

14.4.1.3 Grinding operations shall not be served by the same dust collection system as buffing and polishing operations.

14.4.1.4 Dry-type dust collectors shall be located outside of buildings.

14.4.1.7* If the metal dust-collecting unit is to be used for other materials, it shall be thoroughly cleaned of all incompatible materials prior to and after use.

14.4.1.8 Grinders, buffers, and associated equipment with dust collectors utilized for processing metal dust shall be provided with a placard that reads as follows:

CAUTION: Current Use: [Type of Metal] — Fire or Explosion
Can Result with Other Met

