



# WE'RE THE EXPERTS

- PRESSURE WASHING: 6000 psi. 180F., Chemicals
- FLOORS: Cleaning, Coating, Sealing, Striping
- DUCT CLEANING: Heat, Cooling, Exhaust
- EQUIPMENT CLEANING & PAINTING
- PAINTING: Interior & Exterior, Electrostatic
- OVERHEAD STRUCTURE VACUUMING
- EXTERIOR BUILDING CLEANING & PAINTING
- TANK & SILO CLEANING & PAINTING
- POST FIRE CLEAN-UP
- DRY ICE BLASTING
- CONCRETE FLOOR POLISHING
- EXPLOSION-PROOF VACUUM SYSTEMS FOR COMBUSTIBLE DUST



TOLL FREE  
**(800) 578-3111**

ROCKFORD, IL  
**(815) 965-3111**

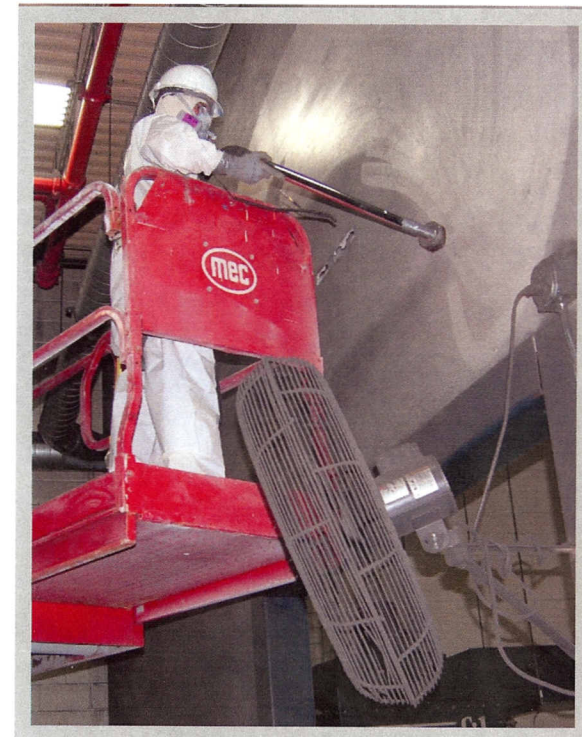
ELGIN, IL  
**(847) 888-0974**



420 Buckbee St.  
Rockford, IL 61104



# AVOID DISASTER! COMBUSTIBLE DUST VACUUMING



(800) 578-3111 • (815) 965-3111  
Fax (815) 713-3265

Web [www.SurfaceMaintenanceServices.com](http://www.SurfaceMaintenanceServices.com)  
E-mail [SMSindservices@aol.com](mailto:SMSindservices@aol.com)  
Elgin, IL (847) 888-0974

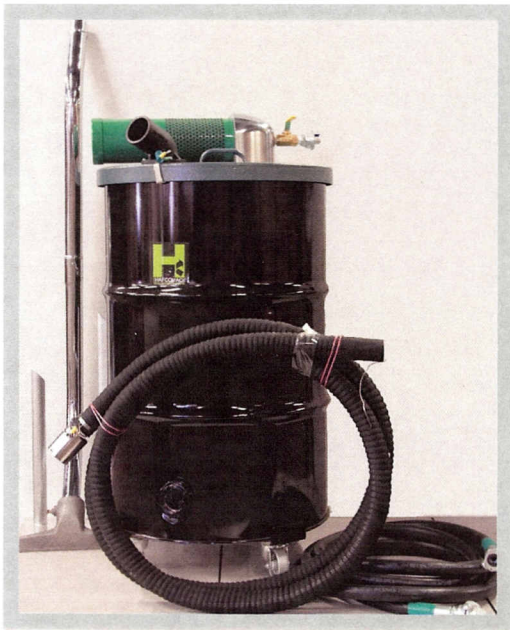
PRSR STD  
U.S. POSTAGE  
**PAID**  
ROCKFORD, IL  
PERMIT NO. 821



# Explosion-Proof Vacuuming for Combustible Dust

Any combustible material (and some materials normally considered noncombustible) can burn rapidly when in a finely divided form. If such a dust is suspended in air in the right concentration, it can become explosive. The force from such an explosion can cause employee deaths, injuries, and destruction of entire buildings. Such incidents have killed scores of employees and injured hundreds over the past few decades.

A combustible dust explosion hazard may exist in a variety of industries, including: food (e.g., candy, sugar, spice, starch,



flour, feed), grain, tobacco, plastics, wood paper, pulp, rubber, furniture, textiles, pesticides, pharmaceuticals, dyes, coal, metals (e.g., aluminum, chromium, iron, magnesium, and zinc), and fossil fuel power generation.

Employers with hazardous chemicals (including combustible dusts) in their workplaces are required to comply with 29 CFR 1910.1200, the Hazard Communication standard. This includes having labels on containers of hazardous chemicals, using material safety data sheets, and providing employee training. In many accidents, employers and employees were unaware that a hazard even existed.

Combustible dusts are not as well understood as a hazard as are, say, flammable gases and vapors.

Ignitions of combustible dusts can cause incredible destruction, usually due to the primary explosion raising the layers of dust, forming huge dust clouds which are ignited by the fires of the first explosion.

Dusts which have caused fires and explosions in the past are:

- MDF sandings (from final product sanding/parting saw area particularly)
- Foodstuff powders (sugar, flour, coffee, milk powder for example)
- Metal filings (aluminum, magnesium)
- Fibres (wool, cotton, paper)
- Trimmings (plastic from packaging plants)
- Industrial (coal, sulphur, carbon dust, shale dust)
- Medications (paracetamol for example)



*OSHA identifies more than 130 products or materials that pose a threat for combustible dust explosions. Included are many agricultural products and dusts, carbonaceous dusts, chemical dusts, metal dusts and plastic dusts.*