Hazardous Material Storage

From the non-fire rated DRUMdoc™ model to the 4-hour fire rated, explosion relief paneled SUPERdoc™ model, U.S. Chemical Storage buildings are designed for safety and compliance. Accessories include electrical and HVAC packages, lighting, shelving, ramps, cylinder racks, drum handling and fire suppression systems. Every model has built-in secondary containment. Proper storage and climate control protects valuable chemicals and increases shelf life. Custom and modular solutions are available. —U.S. Chemical Storage Inc., 800/233-1480, www.uschemicalstorage.com

Sanitation Services

The company offers branded apparel programs and facility services. They provide tailored uniform rental, uniform purchase and facility services solutions. Their line of restroom products includes foam soaps, heavy-duty hand cleaners, hand sanitizers and air fresheners. They also provide a full range of dust control and wiping products, including floor mats, mops, shop towels and microfiber cleaning products. —G&B Services, 800/452-2737, www.gbservices.com

Steel Toe Cap

The TURBO TOE protects the front of the foot from impact. It’s ideal for any working environment that carries a risk of accidental toe damage or has a steel toe cap requirement. The TURBO TOE is perfect for visitors, temporary or casual workers, management and sales people. Durable PVC, 100% waterproof with anti-slip bottom treads. The steel toe cap is color coded by size and the steel toe is certified ASTM F2413-05 M/SC/175/C/75. —Impacto Protective Products Inc., 888/232-0031, www.impacto.ca

FREE GHS Awareness Literature

It is a matter of when - not if. GHS regulations will be coming to North America. Many nations have already adopted the new global system, and are in the process of transitioning their hazard communication items such as labels and Material Safety Data Sheets. The booklet "GHS Awareness for Canada and the United States" outlines the GHS system and the changes it will bring to the Hazard Communication system in North America. The booklet is free and can be downloaded at the company’s website. —ICC The Compliance Center, 716/283-0002, www.the complianccenter.com

Portable Air Quality Tester

The AG200 is a multifunctional, hand-held, sensitive, and accurate Indoor Air Quality monitor for numerous IAQ applications. The AG200 includes a CO2 sensor, (0 - 5000 ppm) and a CO sensor (0 - 1000 ppm). It measures ambient temperature (-4°F to 176°F), Delta T, atmospheric pressure, and humidity. CO2/CO resolution is 1 ppm. The AG200 features a 2-line display, min/Max/Unit/Hold selection, ABS shock-proof housing, and 8000 data memory points. —E Instruments International LLC, 215/750-1212, www.E-lnst.com

ISSUE FEATURES

Confined Space Entry
Heat Stress Relief
Emergency Responders/PPE
First Aid
Dust/Fume Control
Flexible screw conveyor moves difficult material

The hopper directs powder into the intake adapter of a 25 ft (7.6 m) long, 2 5/8 in. (67 mm) diameter flexible screw conveyor inclined at 45 degrees. The conveyor employs a flexible, stainless steel screw with a specialized geometry that has been engineered by Flexicon to handle materials with difficult properties such as TiO₂.

A 2 hp (1.5 kW) electric motor at the discharge end of the conveyor rotates the screw, propelling titanium dioxide through the plastic tube and through a discharge spout connected to a 4 ft (1.2 m) long, 6 in. (152 mm) diameter wire-reinforced PVC downspout. The powder falls into a bucket enclosed in a dust-containment box, which sits on an electronic scale above the blender.

When the blender calls for titanium dioxide, an operator activates the conveyor, as well as the vibrator and agitator in the hopper. The controller automatically stops the conveyor when the weight of the material in the bucket reaches 5.5 lbs (2.5 kg). At this point, the remaining powder in the downspout trickles into the bucket, bringing the final weight close to the required 6 lbs (2.7 kg). "We're achieving batch weight accuracy of approximately ±0.02 lb (±0.01 kg), which is many times more accurate than the old system," Gross reports.

Gross's initial estimates allowed up to three minutes to deposit the required 6 lb (2.7 kg), given the variable flow characteristics of titanium dioxide, but the task is now accomplished in 30 to 45 seconds.

Conveying Process Ends in Dust-Containment Box

Since an operator can empty the filled bucket into the blender without removing it from the dust-containment box, titanium dioxide is contained throughout the system.

"The system has effectively contained dust," Gross reports. In addition to protecting workers and keeping the surrounding plant area clean, the system reduces material waste and eliminates the need to clean a remote dust-collection site.

As for maintenance, Gross cleans the equipment every three or four months, noting, "It's basically a no-maintenance item."