

DUSTY JOBS

QUARTERLY

IMPERIAL SYSTEMS NEWSLETTER

ISSUE
III

POLICE IN HOT PURSUIT OF STOLEN CMAXX



When Scott Clausen arrived at his company, Glacier Technology, on the morning of September 25th, he noticed something was missing.

Scott is an Imperial Systems rep. and his CMAXX demo unit, nearly 2000 pounds of 10 gauge steel and strapped to its travel trailer, had vanished » CONTINUED PG. 2

GOOD LUCK WITH THAT

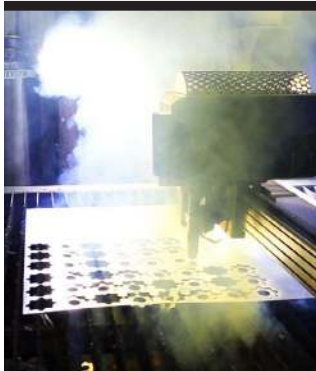
By: Charlie Miller
Written in Charlisms

FIELD MEASURE WITH EARL



When you are responsible to design a dust system, it is not good to have the field crew calling to inform you the duct routing you selected is running into numerous obstructions causing expensive field modifications and installation delays. That's why it is important to get good field measurements before the system is fabricated. I learned all about field measurements from a man named Earl.

Back in the days before smart phones, lap top computers, and laser measurements, we had to make do with "old school" measurement techniques. Earl had a leather valise full of his measurement tools, several of his own design. I was the one who got to lug it around. The case contained a variety of tape rules in 12, 25, and 100 feet lengths, a couple 6 feet folding stick rules, a wheel pedometer to measure feet and inches, and an incline meter to measure slope angles. There were several plumb bobs, a few chalk lines, various clamps, a pair of binoculars and a few rolls of duct tape. The Binoculars were used with a tool of Earl's own design. » CONTINUED PG. 2



Clearing The Air

By: Jeremiah Wann
WeldingProductivity.com



Osha's Regulations on Combustible Dust?

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Check
Us Out



from the parking lot.

Plymouth police were immediately contacted to track down the stolen CMAXX and its nefarious thieves. Meanwhile, the question of why someone would steal a dust collector came to mind. While the thieves might be people so desperate for safe air filtration that they would go to any lengths to get it, the possibility that they intended to sell it for scrap must also be considered.

Meanwhile, the CMAXX itself had been on quite an adventure. After a trip down the highway, the incompetent thieves' plan was foiled by their faulty hitch, and the CMAXX on its trailer broke loose. After skidding across traffic, it came to rest on the far side of the road, where police discovered it.

We are proud to note that our CMAXX survived this entire experience intact, with the only damage being to the trailer. It has been safely returned to Glacier Technology by the Plymouth police department.

The thieves remain on the loose, and anyone in the Plymouth, MN area should make sure to secure valuable dust collect equipment in case these desperate bandits make another attempt. <<



FIELD MEASURE continued...

He had an electrical linemen's telescoping measurement pole that he attached a standard 36" yard stick to the top of. The linemen's pole is a fiberglass pipe about 6" in diameter and 5 feet tall. Nested inside the main pipe are numerous other pipes of diminishing diameters each 5 feet long and marked off in 1" increments. When all the pipes were fully extended, the pole would be stand about 30 feet high. It was my job to hold the pole steady at a ground level work point while Earl used the binoculars to read the measurements on the yard stick in the roof steel 30 feet above. This was easier said than done.

Once the measurements began, the serious work started. Inside the valise Earl had building drawings (if they were available), sketch pads, clip boards, a box of pencils of various colors, and a gross of rubber erasers. Earl would take each measurement and mark it on his sketches. He was the only guy I knew who could draw a nearly perfect straight line without a straight edge. His field drawings always ended up with a lot of lines. His motto was to get it all in one trip, so sometimes field measuring with Earl could take several days. He would pick out work points and triangulated measurements on all three-coordinate axis.

Sometimes I was sure his measurements extended into the 4th dimension. Often his field sketches exploded with more dimension lines than details. When it got too confusing for simple HB2 lead, he would switch to the color pencils of which he carried a plethora. It was not unusual for Earl's field sketches to be dimensioned in 5 or 6 different colors. It was a standing joke among us lesser draftsmen that Earl measured the fly poo to make his drawings more accurate.

There was one tool that Earl always carried with him. It was his trusty Barlow pocket knife. When Earl's pencil points snapped, as they inevitably did, he would pull out the Barlow and say to me, "Kid, are you dooly instructed on how to field sharpening a pencil?" He would then show me how to whittle the nub back to a point as fine as any mechanical sharpener could do. To this day I still carry a pocket knife, but that was one feat I could never duplicate.

When we returned to the office it was time to decipher all those dimension lines. That was my job. I would draw the ductwork in and around all the obstructions. I sometimes became nauseous looking at and all the dimensions that Earl laid down. But the only time we had an installation problem with a job Earl field measured, was when those pesky electricians came in after us and ran their conduit right in our duct path. Electricians have absolutely no regard for the other trades.

Of course, today there are phone apps to do all this measurement stuff. They may have made things easier, but if you think you will get accuracy with phone apps, well good luck with that! <<





OSHA'S REGULATIONS ON COMBUSTIBLE DUST?

Part of the Trump administration's push to support American manufacturers has involved cutting back on regulations. Several OSHA regulations in progress, including the new silica and beryllium exposure limits, have had their start dates pushed back so they can be reviewed. For industries that deal with the risk of combustible dust, one of the biggest changes may be that the administration has removed the proposed Combustible Dust Regulations From OSHA's Agenda.

What was the plan for combustible dust regulations?

The delayed silica and beryllium regulations had already been put in place before the Trump

administration requested review of them, and you can expect that they will still be implemented at some point. The combustible dust regulations, though, had been discussed, debated, and delayed for a long time before the current president took office.

The Chemical Safety Board (CSB) is an independent federal agency that investigates industrial accidents, including dust explosions. They have been pushing for combustible dust regulations for years, with one major push coming after the Disastrous Imperial Sugar Dust Explosion In 2008, where one smaller explosion ignited sugar dust that had accumulated all over the building, killing 14 people and completely destroying the facility.

Another incident that prompted the CSB to push for combustible dust regulations was a titanium dust explosion in West Virginia that killed three workers in 2010. Throughout the next several years, the CSB kept combustible dust regulations on its "most wanted list" of new rules it considered necessary to prevent industrial accidents and deaths.

There are already combustible dust regulations for the grain industry, where explosions from dust in silos, elevators, conveyors, and mills is a constant hazard. The CSB and other safety organizations hoped to push this type of regulation to cover all types of combustible dust.

What kept the combustible dust regulations from happening? >> CONTINUED PG. 4



IMPERIAL SUGAR DUST EXPLOSION

| csb.gov

Every year OSHA reviews laws and regulations they want to work on. Combustible dust regulations have been on that list for several years, but have been delayed or not decided on. The main problem is that such a regulation would affect nearly any industry that produces dust, since almost all dust is potentially explosive, and every process that causes dust to be produced.

With uncountable numbers of different types of dust and different processes, making combustible dust regulations that could cover all of these was a very difficult task from the beginning. This kind of regulation would have to cover industries from food to metalworking to plastics to pharmaceuticals. It would be a huge job to figure it all out and make it enforceable.

Does that mean OSHA can't fine you for combustible dust problems?

Except for the grain industry, OSHA does not have combustible dust regulations that they can use to fine violators. However, they have issued many guidelines and recommendations for combustible dust safety. These are not enforceable. However, that does not mean combustible dust can be ignored. OSHA does have enforceable regulations for fire protection, ventilation, general environmental controls, and hazardous materials. Uncontrolled dust in your facility may be a violation of any of these.

In addition to these rules, OSHA can enforce serious fines in situations where workers are injured or killed on the job because employers did not correct a dangerous situation. In the event of a combustible dust explosion with injuries or deaths, serious penalties could be enforced for letting a hazardous situation occur.

Even without concern for combustible dust regulations, lawsuits against a company for injuries or deaths in a dust explosion are quite likely, and they could cost much more than any OSHA fine.

What guidelines should you follow to prevent combustible dust hazards?

The National Fire Protection Association (NFPA) does not make combustible dust regulations. However, they do set standards for managing combustible dust and preventing dust fires and explosions. NFPA standards are

often considered the industry standard, and many local and state building codes require that facilities meet NFPA standards. NFPA 652 And 645 Deal Specifically With Combustible Dust.

Even though OSHA does not have combustible dust regulations, state and local safety administrations or building codes may have regulations that are much stricter than OSHA's. NFPA standards are the gold standard by which many state and local governments set their safety regulations.

Why are engineering controls such as dust collectors so important?

The only good way to keep combustible dust from creating an explosion hazard is to get it out of your facility. Since blowing industrial waste into the surrounding atmosphere tends to be frowned upon, a dust collection system that filters the combustible particles out of the air can be the best solution.

Even if a fire does occur in a dust collector, Properly Designed Systems will have safety features such as Fire Suppression, explosion venting, and Abort Gates to safely control or divert a combustible dust explosion. While OSHA does not have a regulation to enforce dust collectors for combustible dust, they do strongly recommend them, and the NFPA also strongly recommends a well-designed dust control system as a key safety feature. ‹‹

