

TerranearPMC Safety Share

Week of February 18, 2013 – Color Coding Hazards

Ethyl stood and stared at the yellow barrier tape that surrounded the construction crane. This was not just a crane, but a crawler-mounted latticework boom crane. While not the biggest of its type, it certainly wasn't small. With a capacity to lift and move about loads up to 1000 tons, it was a piece of equipment that needed to be shown some respect.

The field construction manager was looking out his trailer window taking a more than a casual glance over at the OSHA Safety and Health inspector. He noticed that she had her clipboard out and was writing on it. His curiosity was piqued. Actually, Jim Nabors was not so much amused as he was concerned. Watching an OSHA Safety and Health person perform an audit of his work site could cause him more than just heartburn. He thought that he better had go over to madam S&H and see what's going on.

“Good morning miss.....”

“Mercaptan....that's Ethyl Mercaptan. No miss or Mrs. necessary needed or wanted.” Ethyl put her hand in her coat pocket and pulled out her business card and handed it to Jim.

“I signed in at the field office, but you weren't there at the time. I was told that it would be OK for me to go ahead and check out the site.”

“Well Ethyl Mercaptan, I'm Jim....Jim Nabors, the field manager for this project.”

Ethyl thought about saying something like “GOOOOLLY” or “SHAZAM” but thought better of it. After all, he's probably heard it a million times in his life.

“Good to meet you Jim.” She extended her right hand which Jim reciprocated in a mutual shake.

“Well Ethyl, you see anything interesting so far? It's just another construction site.”

Ethyl let a few seconds go by and then responded. “Well that yellow caution tape is not right for the crane.”

Nabors emitted a sound that could only be interpreted as deep exasperation. “Miss Mercaptan,” accentuating the “miss,” – “We have warning tape to warn people – warning people to not enter the area.”

At that point Ethyl knew her day was going to be anything but smooth.

Under title 29 of the code of federal regulations, OSHA has specified specific color coding for the marking of physical hazards and can be found under 29 CFR 1910.144 (for general industry) and 29 CFR 1926.200 (for the construction industry). These regulations state that red shall be used to identify danger.

The color yellow is designated as the basic color for communicating caution and for marking physical hazards such as: striking hazards, stumbling, falling, tripping and caught in between. OSHA states that “Caution signs shall be used only to warn against potential hazards or to caution against unsafe practices.”

So who is right? After all, wasn't yellow tape placed around the crane because persons within the radius of the crane would be aware of the potential crushing hazard? That fact is, well over half of all fatalities involving cranes are the results of person getting struck or crushed. It is apparent that working around cranes is dangerous business and getting caught between the crane cab and a stationary object (as when the crane is repositioning its angle) can be unforgiving. So is a yellow warning or caution barricade satisfactory or should the color red be strictly enforced?

OSHA requires that accessible areas within the swing radius of the rear of the rotating superstructure of the crane, either permanently or temporarily mounted, shall be barricaded in such a manner as to prevent an employee from being struck or crushed by the crane. According to the OSHA definition, a barricade means an obstruction to deter the passage of persons or vehicles. The question is, does yellow caution tape provide an adequate barrier to the dangers associated with the swing radius of a crane?

In an OSHA compliance letter dated, March 10, 2004, OSHA addresses the following inquiry: “Will a caution tape or rope perimeter satisfy the requirement...for a barricade around a crane's swing radius?” As OSHA reiterates, the purpose of the "barricade" is to delineate a dangerous area and warn employees not to go beyond a specific point. OSHA continues by stating that the purpose of the crane standard is to mark the boundaries of the danger area caused by the crane's swing radius and warn employees to stay out. Yet in their conclusion, OSHA states that the use of caution tape would be permissible to meet the barricade requirement.

It seems that our hero, Ethyl Mercaptan, as experienced and committed to her profession as she is, may be on the wrong side of the argument. Or maybe OSHA was a little too loose in its interpretation.

Maybe, from a regulatory point-of-view, Ethyl's position may be open to discussion and yellow caution tape is considered to be within compliance. Nevertheless, it is important to understand that the ultimate purpose of barricades is to protect persons. Many organizations will be more protective than the basic OSHA safety requirements and insist on using red tape and a danger sign to ensure workers stay out of a crane's swing radius. Additionally, many organizations make it a requirement that only persons may cross a boundary marked with red danger tape only after receiving permission from an authorized source. This type of control is typically reinforced with a very stringent policy for breaching a danger boundary without proper authorization with very serious consequences.

At times we may disagree with how a regulation is interpreted (whether from a safety perspective or from a political angle – they do happen!). We must remember that we and our coworkers are the ones that are susceptible to suffer the consequences of workplace hazards. Therefore establishing a work control, whether it meets OSHA regulatory requirements or not, should not be the main reason why we institute certain controls – it is to ensure we perform our work correctly, within scope and without someone getting hurt.

A man can't ride your back unless it's bent

Martin Luther King, Jr.