

**October 1-3, 2019**  
**ICUEE DEMO EXPO**  
 Louisville, KY  
[www.icuee.com](http://www.icuee.com)

**October 8-10, 2019**  
**Breakbulk Americas**  
 Houston, TX  
[www.breakbulk.com](http://www.breakbulk.com)

**October 16, 2019**  
**Lift & Move USA**  
 BOSS Crane & Rigging,  
 Bennett International  
 Longview, TX  
[www.liftandmoveusa.com](http://www.liftandmoveusa.com)

**October 27-29, 2019**  
**AWRF Fall**  
**General Meeting**  
 San Diego, CA  
[www.awrf.org](http://www.awrf.org)

**November 7, 2019**  
**Lift & Move USA**  
 Liebherr  
 Houston, TX  
[www.liftandmoveusa.com](http://www.liftandmoveusa.com)

**November 13-14, 2019**  
**World Crane &**  
**Transport Summit**  
 Amsterdam, Netherlands  
[www.khl-wcts.com](http://www.khl-wcts.com)

**November 19-21, 2019**  
**Power-Gen**  
**International**  
 New Orleans, LA  
[www.power-gen.com](http://www.power-gen.com)

**January 8-11, 2020**  
**SC&RA Board &**  
**Committee Meeting**  
 Cabo, Mexico  
[www.scranet.org](http://www.scranet.org)

**February 18-21, 2020**  
**SC&RA Specialized**  
**Transportation**  
**Symposium**  
 Charlotte, NC  
[www.scranet.org](http://www.scranet.org)

**March 10-14, 2020**  
**ConExpo-Con/Agg**  
**Trade Show**  
 Las Vegas, NV  
[www.conexpoconagg.com](http://www.conexpoconagg.com)

# Exposed

Preventing chemical exposure requires education and training.

In August of this year, OSHA announced its renewed partnership with the Global Cold Chain Alliance (GCCA) and reinforced their continued mutual commitment to reducing ammonia exposure for workers. Though ammonia exposure is fairly specific to the food processing industry, it falls under the Hazardous Chemical Handling header, which crane and rigging operations encounter. In fact, crane and rigging operations can face ammonia exposure in petrochemical facilities, cold storage warehouses, wineries and even breweries – all of which the heavy construction industry gets involved in to some degree.

According to OSHA, American workers use tens of thousands of chemicals every day. These chemicals, and other toxic substances, pose a variety of health threats to workers, ranging from irritation and carcinogenicity to physical hazards like flammability and corrosion.

There are three main elements involved in hazardous chemical exposure: elimination/substitution; communication and training; and controlling hazards. OSHA contends that workers suffer more than 190,000 illnesses and 50,000 deaths annually that are related in some way to chemical exposures. Here are three ways to make certain your workers aren't among those numbers.

**1 GET RID OF IT OR SWAP IT OUT.** Where it's possible to do so, the best way to reduce worker exposure is to eliminate the threat altogether via substitution. If a less harmful or toxic substance could be used in place of what is currently being implemented, a substitution should be made.

**2 CLEAR AND CONSTANT COMMUNICATION IS KEY.** The first thing to consider when addressing worker exposure to hazardous chemicals is OSHA's Hazard Communication Standard (HCS), which is designed to ensure that information about chemical and toxic substance hazards in the workplace and related protective



Acute Toxic



Health Hazard



Flammable



Flame over circle



Gas Cylinder



Exploding Bomb



Corrosion



Exclamation Mark



Environmental Hazard

For more information please visit [www.osha.gov/dsg/annotated-pels](http://www.osha.gov/dsg/annotated-pels)

“ Pose a variety of health threats to workers, ranging from irritation and carcinogenicity to physical hazards like flammability and corrosion. ”

measures is communicated to workers.

Information about the identities and hazards of the chemicals must be available and understandable to workers. Labels and safety data sheets are crucial, and chemicals must always be kept in properly labeled containers. If chemicals must be handled by workers, anyone who might come into contact with them should be trained in the proper ways to do so.

**3 CONTROL THE THREAT TO REDUCE THE THREAT.** OSHA's longstanding policy says that engineering and work practice controls must be the main method for reducing employee exposure to toxic chemicals. Some examples of controls include process changes that minimize contact with hazardous chemicals, fume hood use, job assignment rotation and isolating or enclosing processes that involve chemical exposure.

## THE AUTHOR



**Bill Smith** executive vice president, NBIS, is an expert on risk management and safe crane operations. He was a member of C-DAC, which assisted writing the OSHA Crane & Derricks Standard.

