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SAFETY FOR BREWERS: IDENTIFYING HAZARDS AND REDUCING RISK

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ABOUT US



Small details. Big difference.™

- 100 year old insurance company based in Fond du Lac, Wisconsin.
- Specialize in hospitality market niches.
- Known for outstanding service and value to our policy holders.



- 20 years of Insurance Experience
- Specializing in Breweries
- Understanding the brewing process and the brewers needs
- James favors stouts and Ryan favors IPAs

AGENDA

- Why focus on safety?
- Top hazards
- Risk reducing activities



WHY FOCUS ON SAFETY?

- Reduce potential for injuries and illnesses of employees
- Reduce risk of non-compliance with regulations
- Reduce negative business impacts
- Assist with reducing business costs such as insurance premiums



REUTERS ARTICLE: FAST-GROWING U.S. CRAFT BREWERS STRUGGLE WITH WORKER SAFETY (2013)

Welder Mark Moynihan crawled down a narrow tube into a space the size of a car interior to seal the crack in the fermentation tank at Calhoun's Bar-B-Q & Brewery in Knoxville, Tennessee.

The space was oversaturated with oxygen. He lit his torch, and a flash-fire erupted. His hair and clothing disintegrated instantly.

Moynihan, a contractor for the craft brewery, dragged himself up the tube and out of the vat while still on fire, suffering serious burns over much of his body. He died 75 days after the 2009 accident, just before his 40th birthday, said his widow, Kim Moynihan.

Source: <http://www.reuters.com/article/us-brewing-safety-idUSBRE96B0MW20130712>

OSHA NEWS RELEASE 10/24/12

CONCORD, N.H. – The U.S. Department of Labor's Occupational Safety and Health Administration has cited Portland, Ore.-based Craft Brew Alliance Inc. with 14 alleged serious violations of workplace safety standards following the April 24 death of an employee at the company's Redhook Brewery in Portsmouth. The employee was using a compressed air line to purge liquid from the interior of a plastic keg when the keg exploded and fatally struck him.

An investigation by OSHA's Concord Area Office determined that the explosion resulted from excess air pressure introduced into the keg from the keg cleanout line. The line lacked an air regulator that would have limited its air pressure to less than 60 PSI, or pounds per square inch, which is the maximum air pressure limit recommended by keg manufacturers. In this case, OSHA also found that other employees who used the cleanout line were exposed to the same hazard while cleaning out steel kegs.

Source: https://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=NEWS_RELEASES&p_id=23163

AB INBEV CITED FOR SAFETY BREACH (2014)

Anheuser-Busch is facing fines of \$92,400 after one of its breweries was found in breach of eight “serious safety violations” by the US Department of Labor’s Occupational Safety and Health Administration (OSHA).

Source: <http://www.thedrinksbusiness.com/2014/08/ab-inbev-brewery-cited-for-safety-breach/>

WHAT IS A HAZARD OR RISK?

- The degree of probability in having a loss or injury caused by some activity.
- Vulnerable to loss, injury or damage.
- This presentation will focus on hazards to employees.

THERE ARE MANY HAZARDS...

- Moving equipment and parts
- Pressurized vessels and hoses
- Hot work (welding, cutting)
- Mobile equipment such as forklifts
- Heavy objects
- Dangerous chemicals
- Loud noises
- Confined spaces
- Slips, trips and falls
- Sharp objects
- Falling objects
- Toxic/Dangerous gases
- Hazardous energy (LOTO)
- Thermal hazards
- Delivery hazards

WHERE DO I START FOR RESOURCES?

- ANSI/AIHA Z10 – Occupational Health and Management Systems
- OSHA general industry standards
- National consensus standards
- Insurance company or agency professionals
- Brewer associations
- Independent consultants and materials

STEPS – OCCUPATIONAL HEALTH & SAFETY MANAGEMENT SYSTEMS

1. Creating a policy and/or framework for action
2. Engage and empower employees
3. Plan and prioritize
4. Implement your plan
5. Check for desired results or corrective measures
6. Management review
7. Look for continuous improvement opportunities

HIERARCHY OF CONTROLS FOR HAZARDS

- Eliminate the hazard
- Substitution of less hazardous processes, equipment, materials or operations
- Engineering controls
- Warnings
- Administrative controls
- Personal Protective Equipment

WHAT IS A CONFINED SPACE?

- Big enough for a human to enter to perform work
- Not designed for continuous human occupancy
- Limited means of entry or exit



HOW DO YOU CONTROL THE RISK FOR A CONFINED SPACE?

- STRONG SUGGESTION IS NOT TO ENTER UNDER ANY CIRCUMSTANCES!
- Need to label them
- If you enter, then must have a detailed program for entry, attendant, entrant, atmospheric testing, controlling hazards in the tank, rescue, and many other items
- Entry is defined as any body part crossing the plane of the opening
- Use clean in place equipment
- Add product without entry
- Perform tank inspections outside the tank

FALL PROTECTION

- Generally needed when working at heights above 4 feet
- Elevated platforms should have handrails, toe boards and make sure to guard any openings with a swinging gate (preferably spring loaded)
- Stairways should have slip-resistant treads
- Railings on stairs should be provided on exposed stairs of 4 or more steps (some standards require at 3 or more)

POWERED INDUSTRIAL TRUCKS

- Training and certification is required
- Practical and written operator testing is important for any program
- Using propane in a closed environment can cause issues with carbon monoxide poisoning
- Refueling/recharging areas should be reviewed to ensure appropriate controls of ignition sources
- Building damage is a sign of ineffective training for powered industrial trucks

LOCKOUT/TAGOUT – CONTROL OF HAZARDOUS ENERGY

- Required to prevent injury from discharge of energy sources (electrical, pneumatic, hydraulic, etc.)
- Written program is required
- Equipment specific procedures are necessary
- Training needed for affected and authorized individuals
- Equipment such as ID tags and locks needed
- Uniquely keyed locks are needed for each individual
- Documented procedure necessary for removing of locks

THERMAL HAZARDS

- Covers or guards should be provided for steam and hot-water pipes
- Labels should be affixed to hot surfaces to warn
- Written procedures should be developed for employees
- Personal protective equipment should be discussed in procedures such as long sleeves, pants, thermal barriers, safety glasses, or gloves.

WALKING AND WORKING SURFACES

- Floors and walkways should be kept clean, orderly and sanitary
- Floors should be as dry as possible
- Clean up spills immediately
- Wear slip resistant footwear (enforce it)
- Install retractable hoses to help reduce trip and falls

PERSONAL PROTECTIVE EQUIPMENT

- Provide and enforce the usage
- As a leader, you should set the tone and model the usage of this equipment
- Provide signs to warn of the dangers
- Provide training on proper usage and maintenance
- Select for comfort and image
- Periodically, review the different tasks for additional hazards that might have occurred with changes to any processes

CHEMICAL SAFETY

- Sanitizers and cleaners are dangerous!
- Keep safety data sheets (SDS) available for employee review
- Make sure to wear appropriate PPE
- Documented training is required for GHS
- U.S. adopted the UN standard for labeling and communicating chemical information –known as Globally Harmonized System (GHS)
- Updated labeling is needed
- All chemicals must be labeled according to your hazard communication programs and GHS

ERGONOMIC HAZARDS

- Repetitive motions – packaging lines
- Lifting – bags for product
- Awkward postures
- Leaning/reaching/bending
- Forceful gripping

CONTROLLING ERGONOMIC HAZARDS

- Use material handling aids (dolly, hoists, lifts)
- Deploy gravity feeding type of equipment for raw materials or silos
- Utilize conveyor systems
- Keg robots?!
- Automate processes

CONTINUED ERGONOMIC CONTROLS

- Employee micro breaks
- Adjustable tools and equipment
- Employee rotation
- Training/education
- Employee wellness programs

CARBON DIOXIDE CONTROLS

- Ensure adequate ventilation throughout the brewhouse
- Establish a policy of regular monitoring for carbon dioxide
- Establish area monitors and alarms
- Provide personal oxygen and carbon dioxide monitors
- Develop emergency protocols
- Train employees on alarms and emergency protocols

START SAFETY MEETINGS AND COMMITTEES

- Safety meetings should be established to regularly discuss safety topics
- Use meetings to identify and correct hazards
- Empower employees to have a voice and share in the responsibility in maintaining a safe working environment
- Create a culture of positive safety!
- Be proactive versus reactive

SUMMARY

- Breweries have many hazards
- Leverage your resources!
- Use the OHSMS approach to develop a program
- Utilize the hierarchy of controls when addressing workplace hazards
- Engage your employees in solving workplace hazards

QUESTIONS?



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