

GET A PASSING GRADE IN BREWERY SAFETY

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Presented by
Dan Drown, CIH, CSP



Introduction:

Dan Drown, CIH, CSP

- 31 years experience, dual board certification--CIH, CSP
- Global Sr. Safety & Health Manager of multi-national chemical company (17 years)
- Last 8 years consulting in oil & gas production and refining, power generation, water treatment, pharmaceutical R&D and manufacturing, biotech & specialty chemical, construction, and **CRAFT BREWING**



Objectives

- Discuss the content of a safety program
- Determine why you have a safety program
- Evaluate various parts of your safety program
- Discuss brewery safety program performance
- Give you some pointers
- Give yourself a grade

What's your interest in a brewery safety program?

- I want to protect my employees and business
- Not sure where to start...this might help
- I've been procrastinating and figure this will make me feel better
- Insurance Co. told me to get a program together
- Need a program or Cal OSHA will come and get me
- Heard somebody else has one
- Can sleep off lunch while pretending to work



What is a Brewery?

- A type of chemical plant
- Hazards?
 - High temperature
 - Confined spaces
 - High pressure
 - Electrical
 - Corrosive/oxidizing/flammable chemicals
 - Heavy machinery/moving parts
 - Material handling (ergonomics) and storage
 - Elevated work

Safety Program Framework

Injury and Illness Prevention Program (IIPP)

1. Put somebody in charge of safety
2. Praise safe work; kick ass if employees blow off safety
3. Invite employees to tell you about safety concerns
4. Inspect the brewery, list findings & how you fixed 'em
5. Why was somebody injured? How'd you fix it?
6. Write safety rules. Write a safety manual!!!
7. Take time to educate employees on safety
8. If it ain't in writing ...you didn't do it!

Top 3 Issues in Brewery Safety

1. Owners don't get it
2. Inadequate understanding written of program & training requirements
3. Poor coaching and enforcement



Common Oversights

- ❑ Incomplete/non-existent written program
- ❑ Inadequate training (>10 emp. requires records)
- ❑ Lack of documentation
- ❑ Substandard practices
- ❑ Substandard equipment



...More Common Oversights

- ❑ Lack of personal protective equipment
- ❑ Improper use of ladders
- ❑ Improper lock out procedure
- ❑ Improper confined space entry
- ❑ Working without fall protection
- ❑ Letting contractors rule the roost

Common Mistakes Leading to Serious Injury

- ❑ Complacency, rushing
- ❑ Failure to recognize hazards
- ❑ Dumb mistakes

An Example:

- ❑ Thermal burns, chemical “burns”
 - No / improper energy isolation practices
 - Inadequate / no PPE

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Chemical and Thermal Hazard Management

- Identify hazardous tasks (brewhouse & CIP)
- Have written procedures including:
 - ▣ Energy isolation (lockout tagout)
 - ▣ Personal Protective Equipment
- Train employees (keep records)
- Hold employees accountable
- Do not wait until you have a serious incident

Chemical Storage

- Acids and bases need to be segregated and stored with secondary containment



- Flammables in a flammable liquids cabinet

Determine Training Requirements

- List job titles
- List unit operations and tasks
- Determine applicable safety procedures
- Create a matrix

Example of Training Matrix

Job Titles and Names show training requirements

| Titles/Names | Brewing | Spent grain removal | Equip. Cleaning | Gas handling | Power tool use | Repairing | Welding | Hand tools | Bottling/cold glue lbl | Milling | Tank transfer | Slip/trip/fall | Ergonomic Stress | Chemical use | Pressure | Thermal Hazard | Energy Isolation | Noise | Confined Space |
|---------------|---------|---------------------|-----------------|--------------|----------------|-----------|---------|------------|------------------------|---------|---------------|----------------|------------------|--------------|----------|----------------|------------------|-------|----------------|
| Head Brewer | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x | x |
| Joe | APR | APR | JAN | DEC | SEP | SEP | x | x | x | x | x | x | x | x | SEP | x | x | x | |
| Brewer | x | | x | x | | | | x | x | x | x | x | x | x | x | x | x | x | |
| Prod. Assist. | | | x | x | | | | x | x | | x | x | x | x | x | x | x | x | |
| Mechanic | | | | x | x | x | x | x | | | x | x | | x | x | x | x | x | |

Date indicates last training

“X” indicates training needed but not complete

Record Keeping and Documentation

- ❑ Develop an Injury & Illness Prevention Program...Branch out from there...
- ❑ Develop your site procedures for the Cal OSHA-required topics
- ❑ Create a training matrix including all employees and all training topics (not limited to safety)
- ❑ Use a meeting/training class sign-in sheet for all employee meetings
- ❑ Inspect your brewery and keep a record of findings and corrective actions
- ❑ Start a Cal OSHA 300 log and injury report file
- ❑ Resources:
 - ❑ WWW.DIR.CA.GOV California OSHA
 - ❑ WWW.OSHA.GOV Federal OSHA
 - ❑ WWW.LNI.WA.GOV Washington (state) OSHA
 - ❑ Brewers Association website

Organize Documentation

Procedures and Records

- Procedures tell you what to do, how it will be done, by whom, and when or how often
 - Put them in a common binder and make it accessible to all employees (electronic is OK)
- Records are written evidence that you have followed your procedures...**THAT'S IMPORTANT!!!**
 - Put hard copies into folders by subject
 - Transfer some (inspections, training) to spreadsheets

Procedures/Standards Include:

- IIPP
- Safety Inspection
- Confined Space Entry
- Emergency Action Plan
- Lockout Tag Out
- Hazard Communication
- Work Rules
- Personal Protective Equipment
- Accident Investigation
(include forms)
- Training
- Office Safety
- Forklift
- And others...

Records (for folders) Include:

- Training matrix (ongoing)
- Sign in sheets (indefinite)
- Cal OSHA 300 Log (5 year retention)
- Injury reports (5 year retention)
- Inspection reports (one year retention)
- Confined space permits (maintain for 2 years)
- Employee suggestions (one year)
- Agency correspondence (indefinite)
- Hazard assessment (current)
- Equipment lockout procedures (current)
- Medical surveillance records in employee files (30 years)
- Employee exposure records (term of employment +30 years)
- SDSs (30 year archive)

Let's See How You're Doing

First item to grade: Written program

- Got one?
 - Include IIPP?
 - Include work rules?
 - Lockout tag out (LOTO)?
 - Confined space entry (CSE)?
- C** No program but everybody has informal training and does LOTO and CSE properly.
 - F** No program. Nobody ever heard of LOTO/CSE
 - A** Got it all

Next: Energy Isolation-LOTO

- Have procedure
- Have locks & tags
- Have identified equipment needing LOTO
- Employees trained on LOTO and held accountable

F

- Never heard of LOTO and nobody does it

D-

- Full written program and training but nobody does it

C

- LOTO practiced but no written program or training

A

- Got it all

Next: PPE (personal protective equipment) for CIP (clean in place)

- F** None
- F** Gloves
- D** Gloves
- C** Gloves
- C** rubber boots
- B** Gloves, goggles, face shield, rubber boots, PVC or nitrile apron
- A** Gloves, goggles, face shield, rubber boots, full body PVC or nitrile covering

Don't have an
emergency
eyewash/shower - **F**

We're running short of time...

□ Summary

- Develop a written program based on the particular hazards of your brewery
- Train your employees—and document it!
- Look for hazards and correct them
- Lead by example
- Keep the program going—one time training and put it on the shelf does not make a passing grade

Lead by example...

“As I grow older, I pay less attention to what men say, I just watch what they do.”

Andrew Carnegie

QUESTIONS??

