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BREWERY SAFETY:
HOW NOT TO HURT
YOURSELF OR
YOUR BUDGET

MATT STINCHFIELD
SAFETY AMBASSADOR
BREWERS ASSOCIATION



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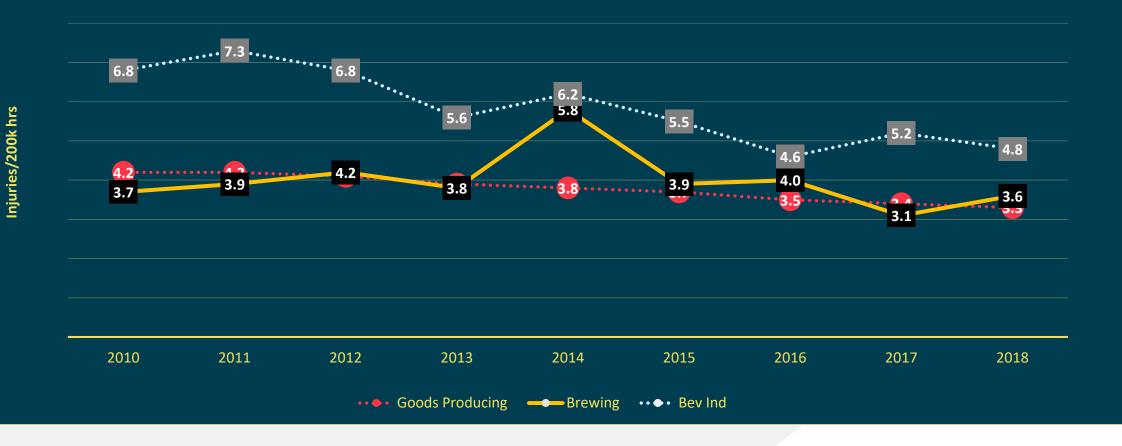
What is Safety?

Freedom from those conditions that can cause death, injury, occupational illness, or damage to or loss of equipment or property, or damage to the environment.



## DO WE NEED TO IMPROVE SAFETY?







Simplify Definition

# Safety is Freedom from Harm



WHO CREATES A WORKPLACE FREE FROM HARM?

- Employer has responsibility to create safe and healthful workplace
- Employees must perform as trained, use provided equipment, follow all laws and regulations



How Do We

# **Create this**Safe Workplace?

IT'S CALLED HAZARD ASSESSMENT

#### **GOALS**

- Improve safety, quality, efficiency, sustainability
- Document best, safest procedure
- Build trust and culture



STANDARD FORMAT

TEMPLATES ARE AVAILABLE

- 1. Outline brewery tasks step by step
- 2. Assess hazards associated with every step
- 3. Reduce or eliminate hazards (\$0 \$ \$\$+)
- 4. Communicate the safe way to perform the job







# Here's a Hazard **Assessment Example**

FOUR SIMPLE STEPS

Conduct a HazAss for all brewery tasks, starting with the most hazardous.

VESSEL







No. 1

## **Outline the Task**

- 1. Connect CIP to FV
- 2. Fill CIP Tanks
- 3. Heat Tank
- 4. Circulate Caustic
- 5. Drain Caustic
- 6. Load Rinse
- 7. Circulate Rinse
- 8. Drain Rinse & Air Dry







No. 1

### **Outline the Task**

1. Connect CIP to FV

**Opt. Drill Down to Instructions** 

- 2. Fill CIP Tanks
- 3. Heat Tank
- 4. Circulate Caustic
- 5. Drain Caustic
- 6. Load Rinse
- 7. Circulate Rinse
- 8. Drain Rinse & Air Dry

- a. Add cool water to left tank up to overfill tube
- b. Add hot water to right tank up to 1" below overfill tube
- c. Dispense 4,000 ml caustic into plastic beaker
- d. Add caustic to right (hot) tank
- e. Rinse beaker and put back on caustic drum





No. 2 **Identify Hazards** 

NO.	STEP	HAZARDS
1	CIP to FV	Slips & Trips, Electrical
2	Fill CIP Tanks	Slips & Trips, Temperature, Concentrated Caustic
3	Heat Tank	Slips & Trips, Temperature, Dilute Caustic
4	Circulate Caustic	Slips & Trips, Temperature, Dilute Caustic
5	Drain Caustic	Slips & Trips, Temperature, Dilute Caustic
6	Load Rinse	Slips & Trips
7	Circulate Rinse	Slips & Trips
8	Drain Rinse	Slips & Trips





#### No. 3

## **Specify Hazard Controls**

#### **Identified Hazards for Step 2, Filling the CIP Tanks**



#### **Slips and Trips Hazard Controls**

PREVENTION (SWP & AC)	PROTECTION (EC & PPE)
Avoid walking in puddles	Textured surfaces
Keep eyes on the floor, don't hurry	Slotted drain covers in place (not open)
Walk like a duck (lower ctr. of grav.)	Waterproof, slip resistant boots
Organize or stow hoses and cords	







## **Specify Hazard Controls**

#### **Identified Hazards for Step 2, Filling the CIP Tanks**

NO. STEP HAZARDS

2 Fill CIP Tanks Slips & Trips, Temperature Conc. Caustic

#### **Hot Temperature Hazard Controls**

#### **PREVENTION (SWP & AC)**

Stand back when filling, recirculating (LoF injury)

Disconnect tri-clamps carefully with valves closed

#### **PROTECTION (EC & PPE)**

Thermostatic temp. control

Long pants, long sleeved shirt

Rubber boots, thick rubber gloves, safety glasses

#### **Concentrated Caustic Hazard Controls**

#### **PREVENTION (SWP & AC)**

Read, understand SDS; Observe labels & placards

Trained in chemical handling

Good housekeeping

Rinse affected surfaces

Dispense where/when others will not be affected

#### **PROTECTION (EC & PPE)**

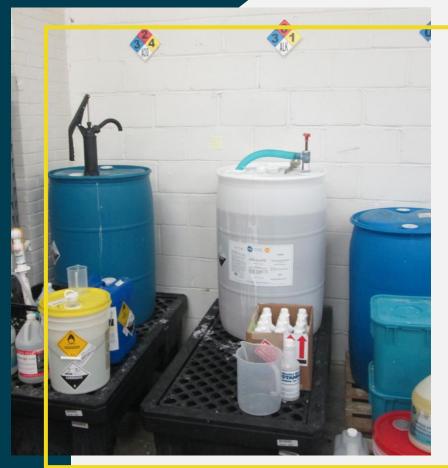
Appropriate pumps, non-reactive

Long pants, long sleeved shirt

Rubber boots, thick rubber gloves, apron

Goggles & splash shield





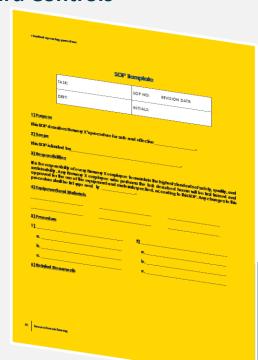
No. 4

### **Write/Revise SOP**

#### **Original Outline of Steps, plus**

**Procedural Instructions and Hazard Controls** 

- Connect CIP to FV
- 2. Fill CIP Tanks
- 3. Heat Tank
- 4. Circulate Caustic
- 5. Drain Caustic
- 6. Load Rinse
- 7. Circulate Rinse
- 8. Drain Rinse & Air Dry



**HAZASS & SOP TEMPLATES** brewersassociation.org Click Resource Hub, Safety, Hazard Assessment BMP







#### At the Brewers Association we believe in:

Valuing safety and a culture required to support it.







Free Access

## **MULTI-FORMAT**

#### 100+ ONLINE RESOURCES AT RESOURCE HUB

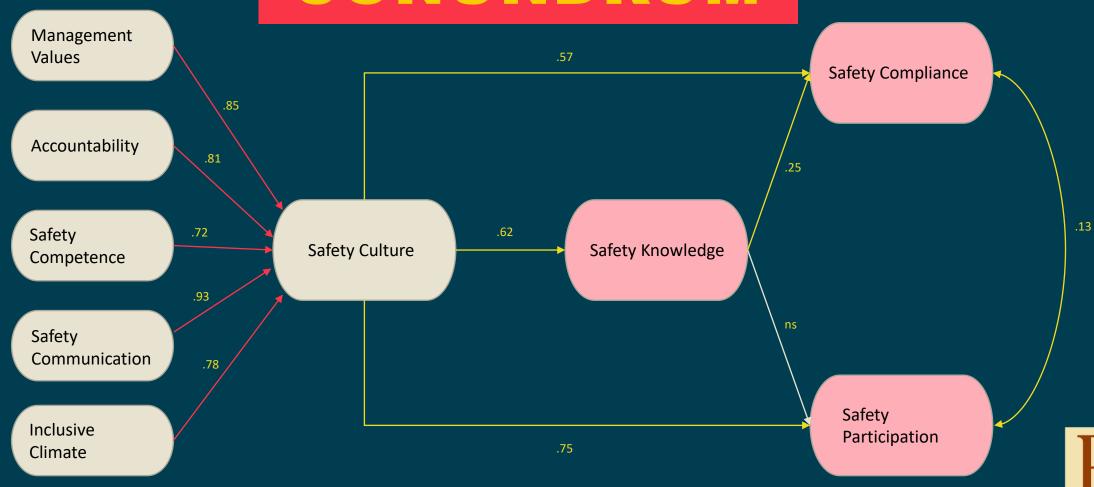
- Video Training prints certificates
- Best Management Practices
- 1-Pagers
- Archived CBC, PowerHour, CollabHour, BA Forum, Lessons Learned and more
- Also check out
  - MBAA Free Resources
  - Your state OSHA Consultation Office

FREE RESOURCES



# CULTURE

# CONUNDRUM







## SAFETY CULTURE DRIVES SAFETY PERFORMANCE

#### **INCLUSIVITY**

Employees, managers, others are involved in development and reporting of policies, procedures, training, nearmisses/accidents, recognition.

MANAGEMENT VALUES

0.78

Management places high value on safety, makes it a company priority, involves employees at all levels, provides necessary training and equipment resources. 0.85

#### COMMUNICATION

Frequent, consistent messaging of policies and procedures. Dynamic communication through all levels of organization: in person, written, and digital.

0.93

SAFETY:

AS MEASURED BY SAFETY KNOWLEDGE, WORKER PARTICIPATION

COMPLIANCE

#### COMPETANCY

Employees are empowered to learn and perfect job skills and safe workplace methods; competence derives from mentoring, training, evaluation, and industry involvement.

#### **ACCOUNTABILITY**

0.72

0.81

Staff and management are held to same level of accountability and responsibility for ensuring safe workplace. Systems for praise and discipline exist and are consistently utilized.





## **SUMMARY**

**WE NOW KNOW...** 



- Definition of 'Safety' as a value
- We need to reduce injuries & illnesses
- Safe workplaces originate with Hazard Assessment & SOPs
- Most controls cost little to nothing
- BA is committed to safety, has free resources, leads in strategic alliances
- Culture drives safe practices, safety knowledge, compliance





# THANKYOU

**MATT STINCHFIELD** 

SAFETYAMBASSADOR@BREWERSASSOCIATION.ORG

