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#### **GCAP** Line Break Presentation





## Safety considerations in line breaks and openings.



#### Line Break:

The PSM objective is to prevent unwanted release of hazardous chemicals that could expose employee's to harm.





#### Our Three Goals for this Talk

- To distinguish between a System SOP and a line break Task.
- To discuss what the procedure for a line break Task may involve.
- Maintenance procedure for opening the refrigeration system.

## What to and what NOT to do!

#### SOP's and Line Break or System Entry – So Who's Idea Was This Anyway?





#### 29 CFR 1910-119(f) CCR Title 19 Section 2760.3 Title 8 5189(f)Standard Operating Procedures

- Federal OSHA
- State California Emergency Management agency – Enforced through CUPA under CalARP
- > Dates back to military operations
- Internet search of term "SOP" in 2002 nets 334,537 hits. In 2012 search has 93,100,000 hits! YES, that's 93 MILLION!
- > OSHA cites heavily in this area
- Tied to the next regulation in both codes is "training"



#### SOP

Uniformly followed procedure: a procedure that is usually followed when carrying out a particular operation or dealing with a particular situation.



#### What's Required in the Training Component?

- Initial Training
- Refresher Training
- Operating procedures if you don't have them; you're probably not training on them!

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Documentation of training

# What is the specific regulator

Written operating procedures that provide clear instructions for safely conducting activities involved in each covered process consistent with the process safety information and shall address certain other conditions.

# Do all situations require a written procedure?

>Compressors/condensers Pressure vessels & piping > Purgers/pumps/chillers > Valves – relief, control, S/O, Expansion, regulating Special considerations when conducting line break @ heights.

## **NOT PRACTICAL!**

We use line break or system entry and write the steps out prior to performing a maintenance task or repair.

Refer to your companies maintenance procedure or SOP.



## **Knowing the priorities**

- During what task do most accidents involving NH3 take place?
- Use common sense
- Think about it!
- ►GO GREEN! Don't waste time &

paper



ke something that you will use

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## Line Break Task Steps

- ►ID Specific task.
- Get "In House" Permit.
- Fill out and review permit with necessary plant personnel, including the written steps to perform this specific task.



#### Suggestions for Written Steps

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 ID Proper PPE (goggles, gloves APR, etc.)
ID necessary Tools (fans, hoses, water, etc.)
Notify others Task is being completed

#### Suggestions for Written Steps

Zone off Area
Communicate during procedure
Have a second (or third) helper on site during entire task.







#### Thank you all for your time today!



Michael Schram - P1 Group, Inc.

