CIP THEORY

OBJECTIVES

Define CIP

Explain the importance of CIP

List the chemicals used in CIP

List the different phases of a CIP cy

Define Clean-in-place

- Process which allows the <u>sanitization</u> of equipment w/o disassembly by using
 - Acid washes
 - Base washes
 - -PW/WFI rinses

2) CIP removes product residue from:

* portable/fixed tanks

* Fixed in line filter housings

* Transfer lines

Why is CIP important?

IT IS THE LAW!

CFR 211.67 (a):

- Prevent contamination
- Prevent malfunction

That may alter:

- Safety
- Identity
- Strength
- Quality
- Purity

CFR 211.67 (b):

 Written procedures shall be established and followed for cleaning and maintenance of equipment...

Example of written procedures:

- SOP
- Equipment Use log
- Batch Record
- Label

CIP ensures:

- Safe
- Pure
- Effective products

CIP Chemicals

Potassium Hydroxide Caustic

Phosphoric Acid



CAUTION!

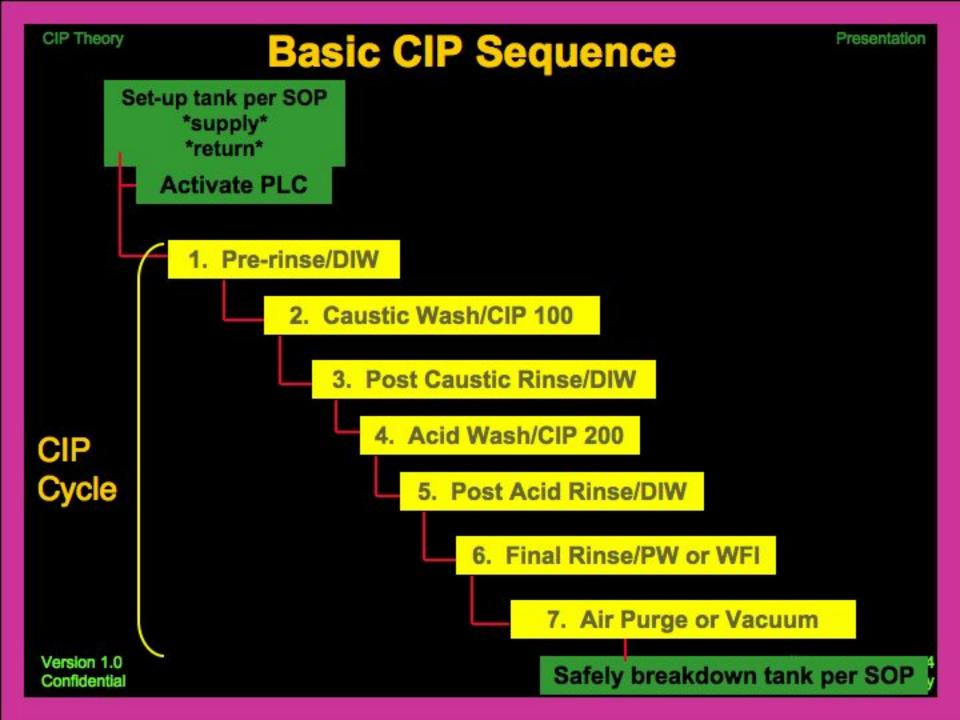
Corrosive chemicals

Always wear PPE

Follow SOP



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Key Points

- Follow SOPs
- Use appropriate PPE
- Check your connections/valves
- Upon completion vent lines
- Ensure proper DOCUMENTATION

REVIEW

- 1.CIP =
- List three reasons why CIP is important.
- 3. What chemical are the chemicals?
- List the different phases of the CIP cycle.