This is the last Safety Talk on Colby’s HazCom program. The intent of this Safety Talk is to familiarize yourself with basic chemical hazards and the terminology found in every work place. Finally, we will discuss some of the specific chemical hazards you have to contend with and protect yourself from as part of your job.

**Examples of Health Hazards:**
- Corrosives - cause tissue damage and burns on contact with the skin and eyes
- Irritants - cause intense redness or swelling of the skin or eyes on contact but with no permanent tissue damage
- Sensitizers - cause an allergic skin or lung reaction
- Carcinogens - may cause cancer
- Mutagens - may cause mutations or birth defects
- Target Organ Toxicants - impacts specific organ(s)
- Aspirants - enter the lungs and cause damage
- Asphyxiants - cause suffocation

**Examples of Physical Hazards:**
- Explosives - react violently
- Flammable gases, solids, and liquids - obvious fire hazards
- Oxidizing liquids, solids and gases - adds to combustion
- Gases under pressure - may react violently if rapidly released
- Pyrophoric liquids or solids - spontaneously combust
- Substances that react with water emit flammable gases
- Organic peroxides - can act as an oxidizer in a fire
- Substances corrosive to metal

**Primary Routes of Exposure:**
- Ingestion
- Skin Contact
- Absorption through the skin
- Inhalation (breathing)
Common Chemicals used in the CHP:
- Acidic and basic boiler/water treatments and cleaners
- Hydraulic and lubricating oil
- Various greases
- Various aerosols lubricants and adhesives
- Thread treatments
- Cutting fluids
- More, more, more?

Primary Hazards Related to these Products

**Flammability:** Certain treatment chemicals (liquid hardness, Volamine 101) are flammable liquids. Use caution with these products around ignition sources and use only in well-ventilated areas.

**Corrosives:** Most of the water and boiler treatment chemicals are either acidic or basic. Wear eye protection and gloves at all times when using these products and know where the eyewash is in case you get exposed.

**Toxicity:** Many of these products are toxic. If ingested, you should avoid eating or smoking during use and wash your hands before break.

**Eye Irritants:** Almost all of these products are eye irritants (some severe). If you get these products in your eyes, flush with water for 15 minutes and tell your supervisor to arrange for additional medical treatment.

**Skin Irritants:** Long term contact with many of these products can lead to skin irritation. Wear gloves and wash your hands frequently to prevent this.
Review / Discussion Questions:

1. Were any common products not included? What are some of the hazards of these products?
2. What do you think is the primary route of chemical exposure for steam plant operators?
3. In general, what in your opinion is the most hazardous chemical CHP operators frequently work with? Why?

Printed Name | Signature
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Questions, concerns or comments contact the EHS Director at extension 5504.