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The Integrated Safety Plan (ISP) Certification Process

ISP Main Goal

- **Ensure and improve the safety of students and employees by...**
 - Fostering a culture of safety dedicated to continuous improvement
 - Evaluating, encouraging, and assisting with safety, regulatory, and policy compliance
 - Certifying and indemnifying safety programs that demonstrate a strong commitment to safety and regulatory compliance

What is REM checking for?

- A safety program that has...
 - Regular safety committee meetings with a frequency commensurate with hazards (or minimum twice a year)
 - Means of communicating safety issues to the organization in a timely manner
 - Upper administrative support for safety
 - Regulatory compliance and training documentation
 - Proper injury reporting and accident or near miss investigations (if applicable)
 - Emergency preparedness (i.e. Building Emergency Plans)
 - ISP Self-Audits Checklists* completed for all areas
 - Abated deficiencies found during the self-audits
 - Annual ISP certification audits by REM

* The self-audit checklists presented to REM at the walk-through should not be more than six (6) months old.

ISP Self-Audit Checklists

Required for All Areas

- Noncontiguous laboratories and shops must be done one per checklist
- Offices, computer labs, storage areas, and common areas (i.e. kitchenettes, conference rooms), may be combined into one checklist per type area

Required for ISP Certification

- **100% returned**
- **100% completed within 6 months of audit**
- **100% signed by “Responsible Individual”** (*i.e. the person with hire or fire authority*)
 - PI or laboratory supervisor
 - Shop supervisor
 - Most senior person (e.g. department head) when like areas are combined onto one checklist

Review Process

- Safety committee must review and ensure deficiencies are corrected prior to REM audit
- If there are 15 or more checklist, make them available for REM to review before the audit date but after the safety committee review.
 - Send REM electronic or physical copies
 - or*
 - Schedule time for REM to come and review them (a safety committee member need not be present)

Sections and Applicability

- Checking “No” for an applicable question or section will normally indicate noncompliance

- Sections 1, 2, 3 and 6 will apply to everyone
 1. Emergency Preparedness and Fire Protection
 2. Housekeeping
 3. General Electrical Safety
 6. Personal Protective Equipment (PPE) Policy

Personal Protective Equipment (PPE) Policy

Applicability and Training

- **ALL** areas require a hazard assessment and certifications thereof.
 - Where applicable, “*No hazards requiring PPE*” is acceptable on the certification document.
- When PPE is required the following is also required:
 - Task or procedure specific training on the correct use, care, donning, doffing, and limitations of PPE
 - Task or procedure specific training documentation

**Hazard Communication Program
(HazCom/Right-to-Know)**

or

Chemical Hygiene Plan (CHP)

?

HazCom/Right-to-Know

- Initial training is required **upon hire** for everyone not covered by the Chemical Hygiene Plan (CHP)
- A designated trained individual (DTI) is responsible for
 - Providing training
 - Maintaining training documentation
- DTI training is provided by REM

Initial Training

- **Two (2) categories:**
 1. ***Comprehensive*** training is required when chemical use or exposure is a significant part of the job.
 2. ***Awareness*** training is required for those using products per manufacturer's intended purposes at a frequency commensurate with consumer use.

Refresher Training

- **For employees whose job requires significant chemical use and exposure**
 - Annually
 - Whenever a new physical or health hazard is introduced
- **For employees whose chemical use and exposure does not exceed consumer use levels**
 - Whenever a new physical or health hazard is introduced

New Online Training!

Hazard Communication Online Training

- **Good for:**
 - Awareness training
 - Comprehensive training
 - Refresher training
- **Requires a Purdue Career Account login and password to access**

Chemical Hygiene Plan

- **Laboratory use of hazardous chemicals** means handling or use of such chemicals in which all of the following conditions are met:
 - (i) Chemical manipulations are carried out on a "**laboratory scale**;"
 - (ii) Multiple chemical procedures or chemicals are used;
 - (iii) The procedures involved are not part of a production process, nor in any way simulate a production process; and
 - (iv) "Protective laboratory practices and equipment" are available and in common use to minimize the potential for employee exposure to hazardous chemicals.
- **Laboratory scale** means work with substances in which the containers used for reactions, transfers, and other handling of substances are designed to be easily and safely manipulated by one person. "Laboratory scale" excludes those workplaces whose function is to produce commercial quantities of materials.

Chemical Hygiene Plan (Restated)

- **For laboratory workers that use reagents to perform chemical manipulations and/or multiple chemical procedures.**
- **The CHP must be lab-specific and incorporate:**
 - Hazard assessment certifications for physical and chemical hazards that provide PPE guidance
 - Standard operating procedures (SOPs) for dangerous processes and chemicals

Training and Documentation

- **Requirements and Responsibilities**
 - The PI or laboratory supervisor is ultimately responsible for training and documentation
 - Training must be lab-specific
 - Initial training **and** annual refresher required for everyone
- **CHP training can be documented by:**
 - The [Lab-Specific Training Certification form](#) from CHP
 - OR
 - [Lab-specific SOPs](#) **and** [Lab Safety Fundamentals online training](#)

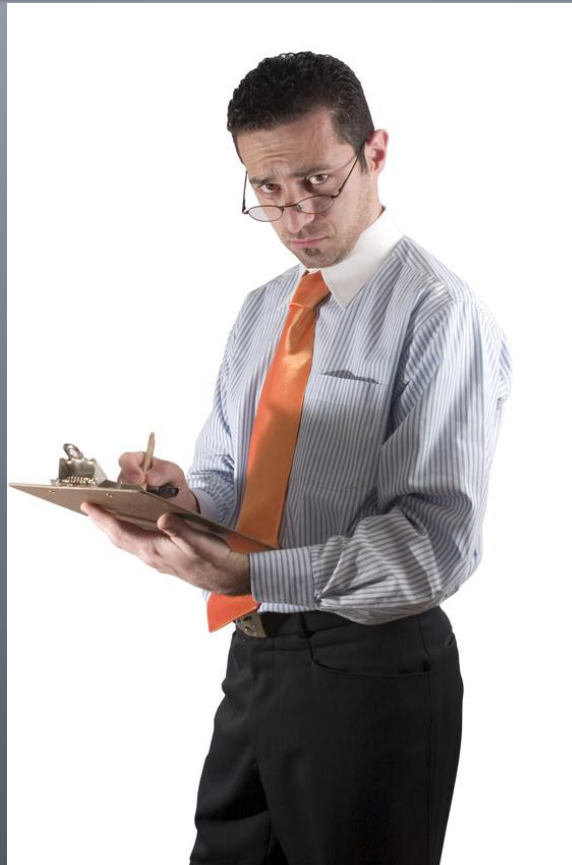
More New Online Training!

Lab Safety Fundamentals (LSF) Online Training

- General introductory awareness training for chemical and physical hazards
- Alone it does not substitute for any regulatory required training
- In conjunction with lab-specific SOP training, it becomes acceptable part of CHP training documentation
- Requires registration and login as well as a Purdue Career Account login to use the software

Common Deficiencies

Most Cited Items of Concern



Electrical

- **Minimum 36 inches (*floor to ceiling*) not maintained in front of a switchboard, breaker panel, or disconnect**

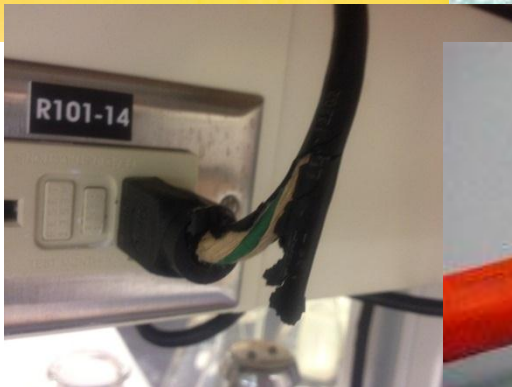
Space is needed to...

- Provide immediate access to cut power in a hurry
- Prevent spread of fires that may be caused by
 - Faulty wiring
 - Heat buildup
 - Sparks



Electrical₂

- Power cord damaged or broken
Electrical tape is unacceptable



Electrical₃

- Extension cord used as permanent wiring



Grounded 1 to 1 Temporary Only



Household Use 3 to 1 Not Allowed

Electrical₄

- Multiple outlets connected in series



Chemical Hygiene

- Label missing, inadequate, or deteriorated



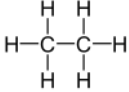


Chemical Hygiene₂

Acceptable Labeling Key

Container Labeled	Chemical Name
CHCl ₃	Chloroform
CH ₄	Methane
C ₂ H ₆	Ethane
EtOH	Ethanol
dH ₂ O	Distilled water
ddH ₂ O	Double-distilled water
diH ₂ O	Deionized water
H ₂ O	Water
HCl	Hydrochloric acid
HNO ₃	Nitric Acid
H ₂ SO ₄	Sulfuric acid
HOAc	Acetic Acid
NaCl	Sodium Chloride
TBS	Tris-buffered saline

Unacceptable Labeling Key

Chemical Name	Container Labeled
Acetic Acid	HOAc
Benzene	
Chloroform	CHCl ₃
Ethane	
Ethanol	EtOH
Hydrochloric acid	HCl
Methane	
Nitric Acid	HNO ₃
Sodium Chloride	NaCl
Sulfuric acid	H ₂ SO ₄
Water	H ₂ O

Chemical Hygiene₃

- Fume hood not used for either work or storage exclusively



Dual use problems

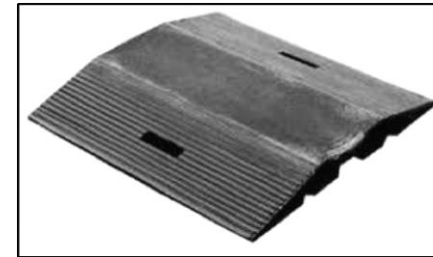
- Incompatible chemicals too close together
- Ignition sources too close to flammables
- Custom shelving interferes with proper airflow
- Poor housekeeping

Egress

- **Obstructed aisle or route of egress**



- A tunnel or tape to cover a cord, cable, or hose is not acceptable in a normal work area



Fire Protection

■ Obstructed sprinklers

- No combustibles within...
 - 18 inches of sprinkler head or
 - 24 inches of non-sprinkled ceiling

Storage along walls is ok as long as it is not directly below the sprinkler head.



Fire Protection₂

- **Obstructed fire extinguisher**



Fire Protection₃

■ Fire door propped open

- Fire doors shall not be blocked, obstructed, propped open*, or otherwise made inoperable.
- **Never** use a chock, wedge, hold open, or install a plunger stop on a fire door



*Exception: fire door equipped with an automatic closing device tied into the smoke and fire alarm system

Fire Protection₄

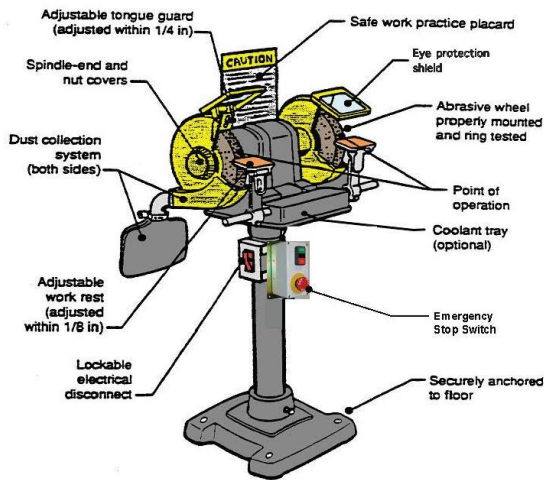


- Heat resistant pad or tray not underneath a coffee pot, hot pot, hot plate, toaster, or toaster oven may result in...

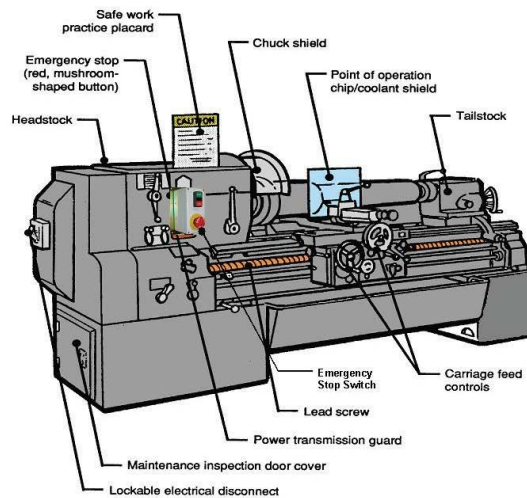


Machine Guarding

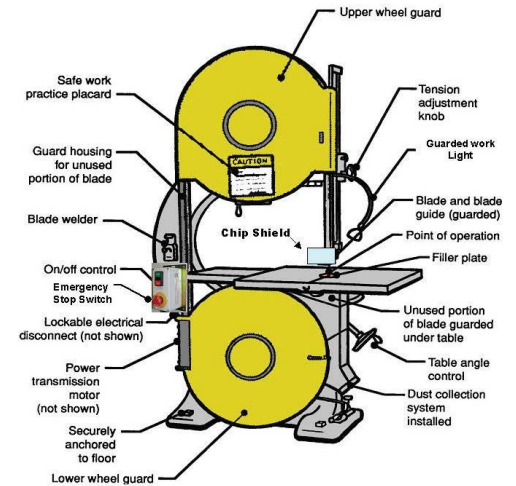
■ Missing or inadequate guarding



PEDESTAL GRINDER



METAL LATHE



Note: Ensure that the proper blade is used for the material being processed. Never exceed the rated speed of the saw blade. Avoid mixing incompatible dusts.

A non-skid working surface is recommended at the operator's position.

VERTICAL BAND SAW

Personal Protection

- **First aid kit**
 - Contains expired items
 - Inventory not maintained

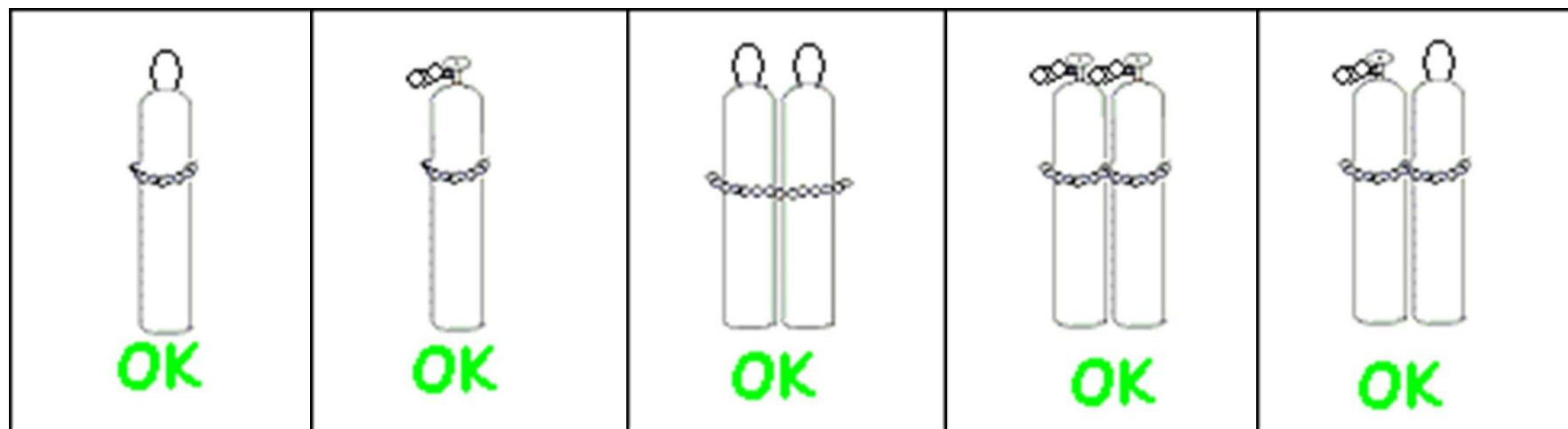
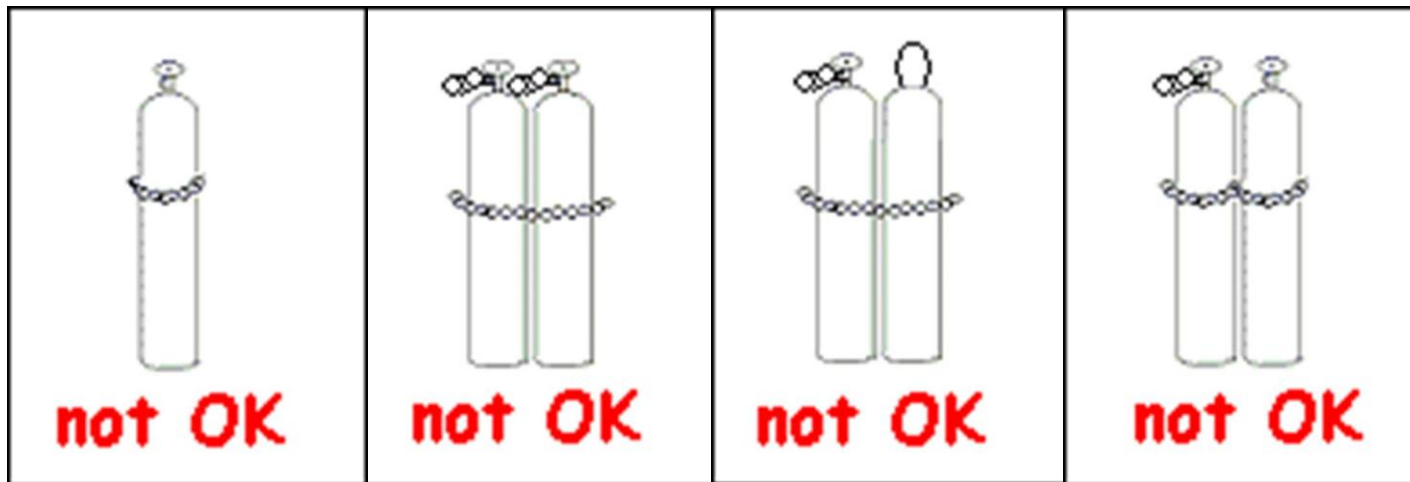


Personal Protection₂

- Obstructed safety shower and/or eyewash



Compressed Gas Cylinders



Housekeeping



Any questions?

