

# Regulatory Requirements of the Graphic Communications Industry

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## General Information

- Safety and health issues addressed by Occupational Safety and Health Administration (OSHA) at federal level.
- Environmental issues addressed by Environmental Protection Agency (EPA) at federal level.

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## OSHA Regulations



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## OSHA Regulations

- Background information:  
Created by Occupational and Safety Act of 1970.  
Purpose: Develop and enforce laws, rules, standards, and mandates that require employers to provide a work environment free from potential health and safety hazards.

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## OSHA Regulations

- (Background continued)  
States have the option of creating and enforcing their own OSHA-approved program - 23 states have state OSHA programs
- OSHA rules apply to every private employer, except those covered under other federal legislation (i.e., schools).

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## OSHA Inspections

- There are six types of inspections:
  1. Imminent Danger
  2. Catastrophes and fatalities
  3. Employee complaints
  4. Programmed
  5. Drive-by
  6. Follow-up

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## OSHA Inspections

- If the inspection shows the existence of hazards or violations of the various rules, citations or “notification of violations” (nov’s) may be issued.

Violations are classified according to the potential threat of harm to the employees.

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## OSHA Inspections

- Violation classifications:
  1. Serious
  2. Other than serious
  3. Regulatory
  4. Willful
  5. Repeat
  6. Failure to abate

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## OSHA Rules



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## Hazard Communication Standard

- Has five components:
  1. Written program
  2. Chemical inventory
  3. Material Safety Data Sheets (MSDS)
  4. Labeling information
  5. Employee training

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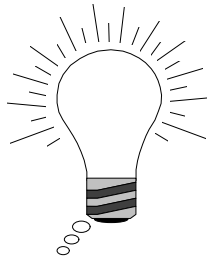
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## Lockout Tagout

- Four components:
  1. Written program
  2. Equipment hazard analysis
  3. Written procedure
  4. Employee training



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## Personal Protection Equipment

- Four components:
  1. Written program
  2. Task review
  3. Written procedures
  4. Employee training



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## Personal Protection

- First Aid: Kits must be compatible with materials present and processes used.
- Eyewash Stations: Must be able to maintain water flow for fifteen minutes.
- Hygienic Practices
- Temperature-related Illnesses

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## Fire Hazards



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## Fire Hazards

- Fire Extinguishers  
Classified according to type(s) of materials ignited -- A, B, C, D  
Must be identified, mounted at a height of four feet, annual inspections, employee training, identified for type of fire, accessible.

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## Fire Hazards

- Sources

No Smoking in areas where flammable or combustible materials are present.

Exposed wiring

Flammable materials storage

Dust

Flammable vapors

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## Fire Hazards

- (Sources continued)

Heat-generating equipment

Transformers/breaker boxes: 4 foot rule

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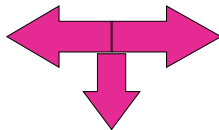
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## Emergency Evacuation

- Emergency plan that details evacuation routes, procedures, and employee accountability system.



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## Electrical Hazards

- All wiring in good condition -- no taping
- Outlet/switch face plates in place
- Extension cords - temporary use only
- Mark "High Voltage" areas
- Do not knot or kink cords
- Do not use multiple outlet adapters

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## Hearing Conservation

- Cannot exceed 85 dB over an 8-hr time.
- Hearing protection must be worn
- May need a Hearing Conservation Program

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## Paperwork Requirements

- OSHA Form 300 and 300A: Log of Work-Related Injuries & Illnesses, Summary
- Poster 2203: Job Safety & Health Protection



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## Hazardous Materials Plan

- Details proper notification and cleanup procedures in case of spill, leak, or release.
- Identifies chemicals and their quantities.
- HazMat team



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## Bloodborne Pathogen

- Protect first aid providers from fluid transmittable diseases - HIV, Hepatitis B
- Need only if company has a designated first aid provider.



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## Ergonomics

- No formal federal standard -- yet!
- Back injuries number one business-related injury.
- Repetitive motion



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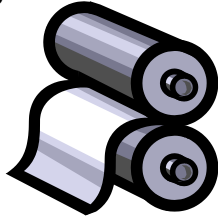
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## Machine Guarding

- Any place where a nip points exists must be guarded.
- Cannot be removed or bypassed.
- Old equipment may require guards be manufactured.



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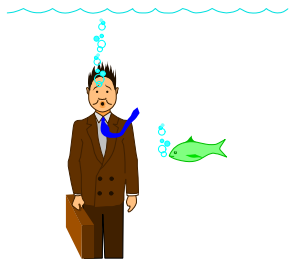
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## Environmental Regulations



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## General Information

- Where do the rules come from?  
Federal: EPA  
State: TCEQ (formerly TNRCC)  
Local
- Rules are not mutually exclusive - many crossover to safety and health laws

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## Hazardous Waste

- Rule Origins:

EPA: 40 CFR

TCEQ: TAC Chapter 335  
Subchapter R

Local: Industrial Wastewater  
Ordinance

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## Hazardous Waste

- Know your waste generator status

Conduct a waste evaluation for sources of waste in all departments including office, prepress, pressroom, bindery.

Status based on amount of hazardous waste generated per calendar month.

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## Hazardous Waste

- Three different waste generator categories:

1. CESQG: 100 kg/month (26.5 gals)
2. SQG: 100-1000 kg/month (275 gals)
3. LQG: >1000 kg/month

Each category has its own set of requirements and restrictions.

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## Hazardous Waste

- What makes a material hazardous?
  1. Listed
  2. Characteristic: ignitability, corrosivity, reactivity, or EP toxicity
- Have all product MSDSs available
- Create "Paper Trail"
- Must notify state of any hazardous waste activity

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## Hazardous Waste

- Use reputable waste transporter and disposal facility.
- "Cradle-to-Grave" responsibility
- Illegal waste disposal carries penalties plus jail time.
- \* Company owners, managers can be held liable.

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## Air Issues

- EPA: Clean Air Act
  - Set NAAQS (National Ambient Air Quality Standards)
  - Based on NAAQS, non-attainment areas were created
    - Houston-Galveston: severe, 25 tpy
    - Dallas: serious, 50 tpy

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## Air Issues

- TCEQ had to develop a State Implementation Plan (SIP) to demonstrate how the state will comply with the federal mandate and get non-attainment areas to meet compliance levels.
- Local: Ordinance 92-180 -- If do not need state permit but emit VOCs, must register with city of Houston.

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## Air Issues

- Various limits require certain activities  
10 tpy requires annual EI (Emissions Inventory)  
Houston: state operating permit for single piece of equipment at 15 tpy or 25 tpy for facility.  
Must have permits before can operate - 6-9 months to obtain permit.

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## Air Issues

- Primarily looking at VOC's (Volatile Organic Compounds) found in almost all graphic products  
High content products are IPA, b&r washes, color washes, deglazers  
Inks are not generally high VOC content products, but use large quantities.  
Must calculate VOC emissions annually

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## Air Issues

- What can you do to reduce emissions?

1. Try alternative products
2. Management practices



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## Storm Water

- Relatively new rules/requirements although has been around for 5+ years.
- Help prevents contaminated storm water runoff from entering waterways.



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## Environmental Summary

- What's Next?  
The demise of shop towels?



- Who can help? Trade association, Small Business Assistance Program, PNEAC



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## Environmental Summary

- Reduce, reuse, recycle
- Pollution Prevention (P2): a management system for eliminating or reducing pollution at the source.

\*Main objective: reduce the amount of waste generated to begin with.

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## And Finally...

*THANK YOU!*

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