

**NEW EMPLOYEE SAFETY TRAINING
SAFETY SHOE ISSUE**

I. PLANT SAFETY SHOE POLICY

- A. Discuss
- B. Questions and Answers

II. VISIT SHOE STORE (OR SHOEMOBILE)

- A. Obtain shoes (and copy of invoice)
- B. Return to plant

**NEW EMPLOYEE SAFETY TRAINING
PLANT INTRODUCTION
OUTLINE**

I. INTRODUCTION

- A. The show should help on getting new employees oriented to the plant
- B. Items wrong with the show:
 - 1. Made when we were still a part of CONOCO
 - 2. Please eliminate the word "CONOCO" and put "VISTA" in place
 - 3. You, as new employees, will need to eliminate the word "contractor," especially since you aren't contractors
- C. The show will briefly review out three main plant products:
 - 1. PVC Resin
 - 2. PVC Compound
 - 3. PVC Dry Blend
- D. The show will also discuss the Key Elements of Safety:
 - 1. Job Planning - Plan your work and work your plan
 - 2. Teamwork - Everyone who can have an impact on the safety of the job should be involved in the planning and completion of the job
 - 3. Communication - Discuss the safety aspects of the job to make sure everyone understands what is going to be done
 - 4. Training - Training programs are designed to minimize or eliminate deficiencies in job performance that are due to a lack of knowledge
 - 5. Follow-up - Make sure your problems and concerns are acted upon
- E. Please ask questions at the end of the show (and all of the others you will be seeing during this training)

II. SLIDE/TAPE SHOW: "PLANT INTRODUCTION"

- A. Show
- b. Questions and Answers

**NEW EMPLOYEE SAFETY TRAINING
VCM SAFETY OUTLINE**

Equipment and Materials Required:

Slide/tape projector and screen
Slide show: "VCM Safety"
REAL "Minimonitor"
Dosimetry data card
Overexposure notice card
Air-line respirator
Scott Air-Pak

I. INTRODUCTION TO VCM

- A Main plant raw material in making PVC
- B Normally a gas, but a liquid under pressure - we use it both ways in the plant
- C Hazards
 - 1. Fairly flammable - like propane
 - 2. Suspected of causing angiosarcoma, a rare, deadly form of liver cancer. This came to light in 1974 when two BF Goodrich employees came down with the disease
- D Federally regulated

II. SLIDE/TAPE SHOW: "VCM SAFETY"

- A Show
- B Correct errors in show
 - 1. Warning lights taken out of service
 - 2. Canister gas masks not permitted
 - 3. Now have a facial hair policy facial hair not permitted in the area of the respirator/faceseal area
- C Discuss and answer questions

III. REVIEW OF VCM

- A Properties and use
 - 1. Main plant raw material for making PVC
 - 2. Colorless, sweet-smelling gas at normal temperature and pressure
 - 3. Liquid under pressure
 - 4. Handled in both forms in plant

B. Hazards

1. Fire

- a. Has a low "flash point" - similar to propane
- b. All "hotwork" must be carefully controlled
- c. Makes HCL (severe corrosive) when burned

2. AOL

- a. A finger bone disease
- b. Prevented by wearing gloves when handling PVC-containing residues
- c. Frost bite

3. INHALATION

- a. Breathing high concentrations can cause you to pass out
- b. HCL - Acid gas released when VCM burns - can cause severe damage, including death

4. LIVER CANCER

- a. Angiosarcoma - 100+ deaths worldwide to date
- b. No cases in VISTA
- c. No cure

5. CHROMOSOME DAMAGE - Lab studies indicate high exposure may cause

C. OUR GOAL

- 1. Keep your VCM exposures as low as possible
- 2. We need your help - Protect yourself
- 3. VCM leaks must be contained!

D. SAFE LIMITS

- 1 1 ppm, 8-hour time weighted average
- 2 5 ppm, averaged over any 15 minute period

E. LEAKS

- 1. No VCM leak is acceptable
- 2. Indicators
 - a. Icing or condensation on piping
 - b. Hissing noises
 - c. Odor
 - d. Measurement with instruments
- 3. Work priority - Leak repair must receive top priority
- 4. Leak Detection - Use Scott Sling-Pak respirator

F RESPIRATORS

- 1 Must be used above 1 ppm
- 2 Type of respirator depends on concentration
 - a. Up to 1000 ppm: Use air-line respirator
 - b. Above 1000 ppm or unknown Use Scott Air-Pak
3. Work requiring air-line respirators:
 - a. Opening, depressuring, or isolating equipment that has contained VCM (pumps, compressors, filter packs, vessels, etc.)
 - b. Hooking up/unhooking VCM railcars
 - c. Working in the VCM compressor shed
4. Facial hair policy. facial hair in the area of the respirator/ face seal area is prohibited

G PROTECTIVE CLOTHING

1. Unloading VCM railcars: cloth gloves, air-line respirator
2. Cleaning reactors Disposable coveralls, rubber gloves, air-line respirator
3. VCM filter pack changes. Rubber gloves, disposable coveralls, air-line respirator
4. Entering dust collectors: Disposable coveralls, Bullard air-line respirator

H. EMERGENCIES

1. Must be prepared to handle them
2. Know what you are expected to do ahead of time
3. Leave danger area when alerted unless your job is to stay and handle the emergency
4. Pre-plan your response to emergencies for different problems

I. CONTINUOUS MONITORING

- 1 Honeywell system used to constantly assess VCM exposure
- 2 May trigger emergency action
3. May trigger leak detection procedures

J. VCM DOSIMETRY

1. Used to measure actual, personal exposure to VCM
2. Wear badges as intended. Don't cover with outer garments or protective equipment

- 3 Fill out card
4. You will be notified of any overexposure within ten working days

K. MEDICAL TESTING

- 1 Done to see if any medically significant problems related to VCM or other chemicals exist
2. Take advantage of the program - participate!
3. Advise your supervisor of any problems you have with the contract service

L RECORDS

- 1 Monitoring records - kept for 30 years
2. Medical records - Kept for length of your employment plus up to 30 years beyond
3. You will receive a copy of the results when the doctor has finished with your exam

IV QUESTIONS AND ANSWERS

**NEW EMPLOYEE SAFETY TRAINING
LEAD SAFETY OUTLINE**

Equipment and Materials Required:

Slide/tape projector and screen
Slide show. "Lead Safety"
Bendix BDX pump and cassette filter
Dosimetry data card
Overexposure notice card
3-M Airhat

I. INTRODUCTION TO LEAD

- A. Lead materials used as heat stabilizers or lubricants in making PVC Compound
- B. All are fine, white powders, normally handled in 50-pound paper bags. Several tons are handled each day
- C. Hazards
 - 1. Can cause Lead Poisoning
 - 2. Can enter body by inhalation or ingestion
- D. Federally regulated

II. SLIDE/TAPE SHOW: "LEAD SAFETY"

- A. Show
- B. Discuss and answer questions

III. REVIEW OF LEAD

- A. Lead Poisoning
 - 1. Serious business - large amounts of lead used in plant!
 - 2. Can enter body by inhalation or ingestion
 - 3. Can damage
 - a. Nervous system
 - b. Reproductive system
 - c. Blood system
 - d. Kidneys
 - 4. Can be fatal
- B. Warning signs
 - 1. Stomach pain
 - 2. Loss of appetite
 - 3. Nausea
 - 4. Metallic taste
 - 5. Constipation
 - 6. Fatigue

- 7 Tremors
8. Irrational behavior
- 9 Insomnia
10. Convulsions
11. Headaches

If you notice any of these symptoms and are concerned:

- a. Tell your supervisor
- b. See the Plant Nurse

C. SAFE LIMITS

- 1 50 micrograms of lead per cubic centimeter of air, averaged over an 8-hour period
2. Limit becomes lower for more than 8 hours of work

D. BREATHING PROTECTION

1. 3M Airhats are required for certain jobs.
 - a Charging compound/dry blend blenders
 - b Working in Color Weigh Room
2. Employees responsible for keeping clean and ensuring adequate air flow (daily check)
- 3 Employees must turn in Airhats on time for cleaning and service
4. Report any problems to supervisor

E VENTILATION SYSTEMS

1. Intended to catch and remove dusty materials as they are generated
2. All exhaust hoods and fans must be kept running
3. Report inoperative or defective equipment

F. WORK CLOTHING

1. Disposable coveralls required whenever lead is handled
- 2 Remove lead-contaminated coveralls before entering clean areas:
 - a. Breakrooms
 - b Restrooms
 - c Control Rooms

G DUST GENERATION

1. Keep to a minimum
2. Avoid unnecessary crushing of bags - Do near hood if possible
3. Use vacuum cleaning methods for powdered materials - Use of compressed air is illegal

H PERSONAL HYGIENE

1. Wash hands, face, arms before eating, drinking, smoking, or using cosmetics
2. Do not bring food, drinks, cosmetics, or tobacco products into lead areas

I. MAINTENANCE WORK

- 1 Operations must clean equipment and work area prior to maintenance work
2. Supplied-air respirators must be used if hot work is done on lead-contaminated equipment, even after thorough cleaning

J. LEAVING WORK

- 1 Vacuum off clothes
2. Wash hands, face, and arms
3. Change clothes when you get home

K LEAD DOSIMETRY

1. Used to measure actual exposure to lead
- 2 Wear correctly
3. Fill out card
- 4 Your will be notified of any overexposures

L MEDICAL TESTING

1. Done to see if any medically significant problems related to lead or other chemicals exist
- 2 Take advantage of the program - participate!
- 3 Repeat, blood-lead-testing will be done if doctors feel they are needed
- 4 You will receive a copy of your test results after your physical exam by the doctor

**NEW EMPLOYEE SAFETY TRAINING
LIFTING SAFETY OUTLINE**

Equipment and Materials Required:

Video Tape "Back Safety" program
VCR and Monitor
Folding Chairs
Programed Instruction: "Lift Safely"

I. INTRODUCTION

- A Ask student to relate a serious back injury he has knowledge of
- B. Importance of safe lifting
 - 1. Potential severity of back injuries
 - 2. The "macho" attitude versus safe lifting

II. BACK STRESS EXERCISE

Allow student to experience low-level back stress while handling a folding chair:

- 1. Standing, bent over
- 2. Standing, holding load next to body, at waist level versus holding load at a distance from body
- 3. Standing, holding load next to body, at waist level versus holding load above head
- 4. Use of feet to turn versus twisting body

III. PROGRAMED INSTRUCTION: "LIFT SAFELY"

- A. Explain
- B. Administer
- C. Questions and answers

IV. VIDEO TAPE: "BACK SAFETY" PROGRAM

- A. Show
- B. Discuss and answer questions