



INTER-ORGANIZATION MEMO

TO: GROUP VICE PRESIDENTS, INDUSTRIAL
RELATIONS MANAGERS, FACTORY MANAGERS,
ATTENTION: SAFETY ENGINEERS

FROM: R. W. Laundrie

DATE: November 27, 1974

SUBJECT: CONFORMANCE WITH THE TRAINING
REQUIREMENTS AT 1910.93(q)(j)
OF STANDARD ON EXPOSURE TO
VINYL CHLORIDE

cc: Messrs. L. Ericson - 3
R. Briggs
D. Markusson
J. Weber

In order to clear up some of the confusion regarding the above subject, the following comments are provided for your guidance.

1. Who should be trained?

Only those personnel that can reasonably be expected to be exposed to vinyl chloride vapors regardless of level of exposure.

At Ashtabula, this should include all personnel.

At the Pilot Plant and Technical Service operations and the Styling Center, this should include all operators and engineers, warehouse and supervisory assigned to PVC operations and all maintenance and laboratory personnel.

At Marion, Orange, and Newnan, all supervisory, maintenance, warehouse, and laboratory personnel as well as all personnel involved in the flexible foam operation and molded foam lines.

At Troy, all maintenance, warehouse, supervisory, laboratory, and PVC injection mold operators.

At Lawrence, Columbus, Reading, Toledo, Jeannette, and Newcomerstown, all warehouse, supervisory, maintenance, and laboratory personnel as well as all operators involved in storing, unloading, blending, weighing, mixing, milling, calendering, pressing, cutting, sawing, etc. of PVC.

Do not forget management people or personnel at outside warehouses.

2. What should be covered in the Training Program? Based on the standard, you must give training in the following areas:

- a. Nature of health hazard from chronic exposure
- b. Operations in your plant that could result in exposures
- c. Respiratory protection--use and limitations

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"DON'T FORGET THAT ANYONE THAT CAN REASONABLY BE EXPECTED TO HAVE TO USE
RESPIRATORY PROTECTION MUST BE EXAMINED BY A DOCTOR TO DETERMINE HIS (HER)
FITNESS TO USE RESPIRATORY PROTECTION."

People with heart conditions or respiratory problems (asthma, emphysema,
bronchitis, etc.) should not use respiratory protection.

- d. The fire hazard and acute toxicity of vinyl chloride (not polyvinyl chloride)
 - e. The purpose for and description of the monitoring and measurement programs
 - f. The purpose for and description of medical surveillance program
 - g. Emergency procedures
 - h. Recognition of conditions that may result in release of vinyl chloride
 - i. Review of the standard for all new or transferred employees and annually thereafter
3. What do I think your program should include?

TRAINING PROGRAM (PROCESSING PLANTS)

1. Nature of Health Hazard from Chronic Exposure to Vinyl Chloride Including Carcinogenicity
 - a. What is VC?
Chlorinated hydrocarbon?
 - b. Distinguish between
 - (1) Vinyl chloride manufacturing
 - (2) Polyvinyl chloride
 - (3) Processing plants
 - (4) Exclusion of fabricated products
 - c. Review standard briefly and how it applies to your operation. Be sure to let employees know source of VC into your plants (standard cylinders for analytical work and as residue in polyvinyl chloride resins). Point out that when PVC resins are overheated that primary air contaminant is HCl not vinyl chloride.
2. What jobs in the fabricating plants could potentially expose one to VC?
Be specific.
 - a. PVC unloader
 - b. PVC sampler
 - c. Blender operators
 - d. Banbury operators

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- e. Calender operators
- f. Extruder operators
- g. Mill operators
- h. Dope make-up operators
- i. Maintenance men
- j. Laboratory technicians

Tell employees what you are doing to eliminate exposures:

- a. Ventilation - other engineering controls
- b. Work practices
- c. Get VC out of resins
- d. Emergency procedures
- e. Respiratory protection

3. Respiratory equipment

- a. Purpose - Types
- b. Use
- c. Limitations
- d. Sanitation
- e. Health hazard if employee has heart or respiratory problems

Show employees how to use

Tell employees when to use

What do other employees do?

Evacuate, run like hell, pray, etc.

4. Fire hazards of VC:

- a. Combustible
- b. Explosive limits
- c. Source of ignition
 - (1) Open flame from what in your plant
 - (2) Static electricity
- d. How to fire fight (explain that when PVC burns, HCl is culprit not VC)

Acute toxicity of vinyl chloride: Nausea, dizziness, lack of coordination, headaches

5. Monitoring and Measuring

Full explanation. Purpose for:

- a. Where sampled?
- b. Method of sampling
- c. How measured?
- d. Meaning of data
- e. Employee benefit
- f. Employer concern

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6. Medical Surveillance

- a. Nonspecificity of tests for cancer. Only sure method still for internal cancers is a biopsy
- b. Our program:
 - (1) Medical history
 - (2) Physical exam
 - (3) Pulmonary tests
 - (4) Urine tests
 - (5) Blood - whole and serum tests
 - (6) Biopsy when indicated
- c. Not required when exposures are below 0.5 ppm TWA (8 hours)
- d. Where required, must be repeated every six months for employees with exposure for ten years. All others on an annual basis.

7. Emergency Procedures

- a. Who does what when something happens
- b. In processing plants, have procedures in writing for entering vessels such as silos, mixers, bag houses, cyclones, hopper trucks, hopper cars, ventilation ducts, etc. Use lockout, purging, testing, watch and rescue procedures as deemed necessary.
- c. Have a procedure for overheated batches. Use self-contained breathing apparatus for removal of scorched material. Evacuate rest of people in area until fumes clear.
- d. Have a procedure for emergencies in lab such as leaks, fires, explosions, etc.


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RWL:raj

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Biological Monitoring - every 6 months (above action level)
- " 2 " (at or above 40 ug/100g whole blood)

Medical Exams - make available Prior to Assignment
- annually above or at 40 ug/100g whole blood)

Detailed ~~Medical History~~

Work History

- Copy of Regulation
- description of employee duties
- exposure level
- description of protective equip.
- Prior lead determinations
- Not reveal in writing unrelated lead exposure problems or test results

- to inform employee of any medical condition
- Or. to keep records for 40 years.

Signs - Warning - No Smoking or eating