OSHA HAZARD COMMUNICATION STANDARD

HAZARD COMMUNICATION PROGRAM

VISTA POLYMERS
Aberdeen, Mississippi

By Jerald Uptain
January 16, 1986

PURPOSE AND SCOPE

The purpose of this program is to ensure that employees are adequately informed of the hazards and the necessary protective measures associated with chemicals used in the plant. The methods employed include procedures for container labeling, the use of manufacturer-supplied material safety data sheets (MSDS), employee training, and other control measures, as described below.

The program applies to all materials known to be stored or used in a way that could cause hazardous exposures under either normal or emergency conditions. For the purposes of this program, a hazardous material is one that presents either a physical hazard (e.g. flammable, oxidizer, etc.) or a health hazard (causes acute or chronic health problems). Although the plant will rely principally on its material suppliers for hazard evaluations of their products, any material known to be present and deemed hazardous by OSHA will be automatically classified as hazardous. OSHA considers any material appearing in the following lists to be hazardous:

a. OSHA Z Tables and substance-specific standards.
b. ACGIH TLV list
c. NTP Annual Report
d. IARC Monographs

Copies of this program and the associated MSDSs are available, upon request, to employees.

HAZARDOUS MATERIAL LABELING

1. Hazardous Materials From Suppliers

The plant will require its material suppliers to provide labeling on their containers which conforms to the requirements of the OSHA Hazard Communications Standard.

The Receiving Department will inspect all incoming shipments of chemicals to ensure that each container is intact and clearly labeled with the identity (chemical or common name which appears on the manufacturer's MSDS for the material) and a hazard warning which describes the type of hazard involved. Any deficiency found will be immediately reported and no use made of the material until corrections have been made.

Once received, hazardous materials will be kept in the manufacturer-supplied containers whenever feasible. Each department will ensure that all such containers stored or used in its plant area(s) are used only as designed, that they retain design integrity, that they are kept closed except during actual use, and that the manufacturer-supplied labels are not removed, defaced, or obscured in any manner. The department will correct any such deficiencies, with assistance from staff (Laboratory, Environmental, Safety, etc.) as appropriate. When relabeling is needed, any method of marking is acceptable, provided it is legible and includes the same identity (chemical or common name) and hazard warning that appears on the manufacturer-supplied container.

2. Temporary Storage Containers of Hazardous Materials

Except for process vessels, small containers used for immediate transfers, and Color Weigh Room weighups, all temporary storage containers of hazardous materials must be marked with the same identities (chemical or common name) and hazard warnings that appear on the manufacturer-supplied containers.

Each package weighed up in the Color Weigh Room will have a "Compound Ticket" affixed which lists the identities of the ingredients and instructs all users to refer to the "Hazardous Materials Reference Book" kept in the Compound Supervisor's office for an explanation of the hazards and handling safety associated with each material.

3. Process Vessels and Piping

The Vinyl Reactor areas, the VCM Tank Farm, and the Compound, Dry Blend, and Plasticizer production areas will be provided with perimeter hazardous material warning signs. The signs will comply with the regulatory requirements peculiar to each area and will instruct all people entering them to refer to the nearest "Hazardous Material Reference Book" for the detailed hazard information and handling safety associated with the materials in use.

4. Isolated Storage Vessels and Containers

Because of their remoteness from the plant areas marked with perimeter warning signs as mentioned above, certain vessels and containers will be individually labeled. This includes, but is not limited to:

a. Phthalic Anhydride Storage Tanks and Unloading Station.
b. Propane Tank Farm.
c. Small Propane Storage Tanks.
d. Gasoline Tanks.
e. Diesel Fuel Tanks.
f. Sulphuric Acid Storage Tanks.
g. Ammonia Storage Tank.
h. Chlorine Storage Tanks.
i. Caustic Storage Tank and Unloading Station.
j. Acid Pump House.
k. Water Treatment Chemical Storage Vessels.
l. Alchol Storage Tanks.
m. Catalyst Storage Coolers.

5. Chemicals for Analytical Use

Manufacturer's labels on containers of materials used for analytical work of any type must not be removed, defaced, or obscured in any manner.

HAZARDOUS MATERIAL INFORMATION

1. [redacted]rial Reference Books

"Hazardous Material Reference Books" will be kept in the following areas and made available to employees and on-site contractors at all times:

a. The Vinyl Control Room.
b. The Compound Supervisor's Office.
c. The Receiving Office.
d. The Lab Supervisor's Office.
e. The First Aid Station.
f. The office of the Director of Environmental Control.

Each book will contain a copy of:

a. The plant's Hazard Communication Program.
b. The Plant Chemical List.
c. The manufacturer-supplied MSDS for each plant chemical.

The Safety Supervisor will be responsible for keeping the bo[redacted] updated.

2. Plant Chemical List

A list of all plant chemicals approved for use will be maintained by the Safety Supervisor, using identities (chemical or common name) which match those on the corresponding MSDSs.

Each department will ensure that the materials it uses appear on the list by advising the Safety Supervisor of any needed additions or deletions. The information must include:

a. Product name.
b. Manufacturer name.
c. What the material is used for.

The Safety Supervisor will up-date the list based on this [redacted]ceipt of new MSDSs, and the information gained in the [redacted]l inventories described below.

3. [redacted] Data Sheets (MSDS)

The plant will obtain and keep a manufacturer-supplied MSDS for each chemical material used.

Purchasing will be responsible for requesting an MSDS for each new chemical they order. A dated record of each request will be made and retained until the first shipment of material and the corresponding MSDS have both been received.

Anyone who requests Purchasing to order a new material that is chemical in nature must also advise them that an MSDS is needed. Anyone other than Purchasing who orders or otherwise causes chemical materials

to enter the plant must request the corresponding MSDS and so notify Purchasing of the order and the date of the MSDS request.

Purchasing will forward all MSDSs to the Safety Supervisor, who will review them for adequacy and maintain the plant's central MSDS file.

Receiving will report the arrival of any chemical which is not on the Plant Chemical List to Purchasing, who will then re-request any corresponding MSDS not yet received.

In no case will a chemical material be used until the corresponding manufacturer-supplied MSDS has been reviewed to determine the relevant hazards and the protective measures needed for safe handling.

CHEMICAL HAZARDS OF NON-ROUTINE TASKS

The chemical hazards associated with all non-routine tasks (e.g., cleanout of vessels) will be controlled by existing safe work practices, including the strict use of the plant's Safety Control System procedure. Each such job will be evaluated for the presence, existing or potential, of chemical hazards. All personnel, including on-site contractors involved in the work will be advised of the hazards and the control measures required to preclude chemical exposure. No job may proceed until this has been done.

CONTRACTORS

On-site contractors must comply with all company rules and regulations pertaining to the control of chemical hazards, including those associated with non-routine tasks. They must also advise the company of any intended use of hazardous manterials in their possession and provide the relevant MSDSs so that steps may be taken to prevent chemical exposures to themselves or plant personnel.

HAZARDOUS MATERIAL TRAINING

Everyone who works in the plant will be adequately trained in the control of the chemical hazards to which they may be exposed. Such training will include:

1. How to make use of the plant's chemical labeling system.
2. The contents, availability, and use of the Hazardous Material Reference Book.
3. The operations in work area(s) where hazardous materials are present.
4. The methods used to detect the presence or release of a hazardous material in the work area(s), including:
    a. Use of portable monitoring equipment.
    b. Use of continuous monitoring equipment.
    c. Visual appearance or odor of hazardous materials when released.
5. The physical and health hazards of materials in the work area(s).

6. The protective measures to be taken to prevent chemical injury or illness, including:
   a. Established work practices.
   b. Emergency procedures.
   c. Personal protective equipment.

The Safety Department will conduct the initial training for all new employees, visitors, and on-site contractors.

Retraining will be done when a new hazard (e.g., due to a new chemical, process change, procedure change, etc.) is introduced into the workplace. Retraining is not necessary for each new chemical, provided no new hazard is present. Retraining will be the responsibility of the employee's department supervision.

All such training will be documented, using the plant's "Safety/Training Meeting Attendance Record," copies of which are to be kept by the Safety Department.

DEPARTMENT CHEMICAL INVENTORIES

Each department using chemicals will conduct an annu[redacted] two-person, field inventory of its chemicals. The two-person team w[redacted] consist of a department representative and the Safety Supervisor, w[redacted] will coordinate scheduling of the inventories.

The inventory team will:

1. Conduct a complete inventory of chemicals stored or used in the department and determine which materials need to be added to or deleted from the department's list of chemicals.
2. Determine what labeling and container deficiencies need correction.
3. Determine what materials need to be disposed of.

Following the inventory, the Safety Supervisor will up-date and reissue the department chemical list and advise Purchasing of any MSDS needs. The department will correct the labeling and container deficiencies and make arrangements for any necessary material disposals.

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OSHA HAZARD COMMUNICATION STANDARD

ABERDEEN PLANT COMPLIANCE SCHEDULE

Item	Completion Date	Responsibility
1. Establish routine clerical help in copying MSDSs and editing chemical list data base.	2/1/86	WFH
2. Update chemical list, using new MSDSs.	2/15	JVU
3. Finalize training outline.	2/28	JVU
4. Install signs and labels.	3/15	JVU
5. Verify and finalize chemical lists.	3/15	Dept. Heads,JVU
6. Finalize and issue written program.	3/31	Dept. Heads,JF,JWW,JVU
7. Make and Issue Hazardous Material Reference Books.	3/31	JVU
8. Conduct training for all employees.	4/30	AHS,JVU,JGR
9. Conduct training for Receiving.	4/30	MAS,JVU
10. Re-print Compound Tickets and put into use.	5/1	PJK,JVU
11. Set up system to document MSDS requests.	5/1	WFH,MAS

OSHA HAZARD COMMUNICATION RULE

LABELING REQUIREMENTS
COMPLIANCE PLAN

By Jerald Uptain
September 29, 1985

PURPOSE AND SCOPE

This plan describes the means by which the Aberdeen plant will comply with the labeling requirements of the OSHA Hazard Communication rule.

LABELING REQUIREMENTS

The OSHA rule requires that employees be provided a method by which they may know the identity and hazards of materials with which they work. For more details, see the attached "OSHA HAZARD COMMUNICATIONS RULE - A SUMMARY OF EMPLOYER RESPONSIBILITIES," dated February 12, 1985.

CONTAINERS FROM HAZARDOUS MATERIAL SUPPLIERS

1. Insist that suppliers provide labeling on their containers which conforms to the requirements of the OSHA rule.
2. Keep hazardous materials in manufacturer-supplied containers whenever feasible.
3. Inspect all incoming shipments of chemicals at receiving to ensure supplier containers conform to the labeling requirements of the OSHA rule.

PROCESS VESSELS AND PIPING

1. Vinyl Reactor Areas

   a. Replace the twelve regulated area signs in the two vinyl reactor areas with customized signs (35 1/2 inch x 35 1/2 inch "LXSIGN" with red lettering on a white background) available from Stonehouse Signs, Inc. at $57.46 each. These signs would preclude the need for labeling individual vessels within the units by referring to hazardous material reference books, wherein more explicit information may be found.

   b. Legend:

VINYL CHLORIDE MONOMER
USED IN MOST VESSELS AND PIPING IN
AREA BOUNDED BY YELLOW LINE

CANCER-SUSPECT AGENT AREA
AUTHORIZED PERSONNEL ONLY

OTHER HAZARDOUS MATERIALS IN USE
SEE HAZARDOUS MATERIALS REFERENCE BOOK
IN CONTROL ROOM FOR HAZARDS
AND HANDLING SAFETY

2. VCM Tank Farm Area

   a. Install two customized signs (35 1/2 inch x 35 1/2 inch "LXSIGN" with red lettering on a white background) available from Stonehouse Signs, Inc. at $57.46 each (est.).

b. Locations:

(1). Twenty feet south of no. 1 water well.
(2). Thirty-three feet east of the railroad tracks and three feet south of the walkway leading from Entrance Road to the tank farm.

c. Legend:

VINYL CHLORIDE MONOMER
USED IN MOST VESSELS AND PIPING IN THIS AREA

CANCER-SUSPECT AGENT AREA
AUTHORIZED PERSONNEL ONLY

SEE HAZARDOUS MATERIALS REFERENCE BOOK
IN CONTROL ROOM FOR HAZARDS
AND HANDLING SAFETY

3. Compound, Dry Blend, and Plasticizer Areas

a. Leave existing lead compliance signs in place.

b. Install customized signs (14 inch x 20 inch "LXSIGN" having red lettering on a white background) available from Stonehouse Signs, Inc. at $18.16 each.

c. Locations:

(1). Southeast door of Line I.
(2). Outside main door between Lab and Line I.
(3). Outside door just northeast of Line I blenders.
(4). Outside door just west of Line III mill.
(5). Outside first-floor door just south of Line III and east of Dry Blend.
(6). Outside first-floor door northeast of Line III.
(7). Outside first-floor fire door northwest of Line III.
(8). Outside the four exterior doors of the Plasticizer Building.
(9). Outside the color weigh room door.

c. Legend:

HAZARDOUS MATERIALS USED IN THIS AREA

SEE HAZARDOUS MATERIALS REFERENCE BOOK

IN COMPOUND SUPERVISOR'S OFFICE FOR HAZARDS

AND HANDLING SAFETY

INTERMEDIATE STORAGE CONTAINERS

1. Except for process vessels, small containers used for immediate transfers, and Color Weigh Room weighups, all intermediate storage containers of hazardous materials must be marked with the same identities (chemical or common names) and hazardous warnings that appear on the manufacturer-supplied containers. Any method of marking is acceptable, provided it is legible.

2. Add the following legend to the "Compound Ticket" used with Compound Color weighups:

CAUTION

HAZARDOUS MATERIALS
SEE HAZARDOUS MATERIALS REFERENCE BOOK
IN COMPOUND SUPERVISOR'S OFFICE FOR HAZARDS
AND HANDLING SAFETY

ISOLATED STORAGE VESSELS AND CONTAINERS

Because of their remoteness from the plant areas marked with boundary signs as detailed above, certain vessels and containers require their own labeling as follows:

1. Phthallic Anhydride Storage Tanks and Unloading Station

   a. Install customized signs (14 inch x 20 inch "LXSIGN" having red letteriing on a white background) available from Stonehouse Signs, Inc. at $27.88 each

   b. Locations:

      (1). On column just west of storage tanks.
      (2). On column just east of storage tanks.
      (3). On southwest column of loading rack.

   c. Legend:

CAUTION

PHTHALIC ANHYDRIDE

BURN HAZARD

TOXIC

2. Propane Tank Farm

   a. Use Carlton Industries, Inc. 10 inch x 14 inch propane gas warning sign (cat. no. 8414 - $13.90 each).

   b. Locations:

      (1). Post-mount west of propane tanks.
      (2). Post-mount south of propane tanks.

3. Small Propane Storage Tanks

   a. Use Carlton Industries, Inc. 10 inch x 14 inch (pressure-sensitive) propane gas warning sign (cat. no. 8415 - $13.90 each).

b. Locations:

(1). Side of tank east of no. three treatment lagoon.
(2). End of tank at fire training ground.

4. Gasoline Tanks

a. Use Carlton Industries, Inc. 10 inch x 14 inch (pressure-sensitive) gasoline warning sign (cat. no. 8415 - $13.90 each)

b. Locations:

(1). Gasoline tank at fire training ground.
(2). Gasoline tank at plasticizer tank farm.

5. Diesel Fuel Tanks

a. Use Carlton Industries, Inc. 10 inch x 14 inch (pressure-sensitive) diesel fuel oil warning sign (cat. no. 8415 - $13.90 each)

b. Locations:

(1). Fuel tank at fire training ground.
(2). The four, fire pump engine fuel tanks.
(3). Diesal tank next to plasticizer tank farm.
(4). The emergency generator fuel tanks.

6. Sulphuric Acid Storage Tank

a. Use Carlton Industries, Inc. 10 inch x 14 inch (pressure-sensitive) sulfuric acid warning sign (cat. no. 8415 - $13.90 each)

b. Locations:

(1). East end of tank.
(2). South side of tank.
(3). West end of tank.

7. Ammonia Storage Tank

a. Use Carlton Industries, Inc. 10 inch x 14 inch (pressure-sensitive) anhydrous ammonia warning sign (cat. no. 8415 - $13.90 each)

b. Locations:

(1). East end of tank.
(2). North side of tank.
(3). West end of tank.
(4). South side of tank.

8. Chlorine Storage Tanks

a. Use Carlton Industries, Inc. 10 inch x 14 inch chlorine warning sign (cat. no. 8414 - $13.90 each).

b. Locations:

(1). East side of chlorine shed
(2). West side of chlorine shed.
(3). South side of chlorine shed.

9. Caustic Storage Tank

a. Use Carlton Industries, Inc. 10 inch x 14 inch caustic warning sign (cat. no. 8414 - $13.90 each).

b. Location: North side of Tank 101.

10. Caustic Unloading Station

a. Use Carlton Industries, Inc. 10 inch x 14 inch caustic warning sign (cat. no. 8414 - $13.90 each).

b. Locations:

(1). On column south of unloading spot.
(2). On column north of unloading spot.

11. Acid Pump House

a. Use Carlton Industries, Inc. 10 inch x 14 inch phosphoric acid warning sign (cat. no 8414 - $13.90 each) and Carlton Industries, Inc. 10 inch x 14 inch (pressure-sensitive) warning signs for sulphuric acid and anhydrous ammonia (cat. no. 8415 - $13.90 each).

b. Location: Outside acid pump house door.

12. Water Treatment Chemicals

Betz Laboratories, Inc. has agreed to provide warning labels for in-plant bulk containers of their hazardous materials.

13. Alcohol Tank Farm

a. Stencil names of alcohols in tanks 102-105 and 107-112 on manway covers

b. Install two customized signs (14 inch x 20 inch "LXSIGN" having red letteriing on a white background) available from Stonehouse Signs, Inc. at $18.16 each

(1). Locations:

(a). On pipe rack support column just northwest of tank 102.

(b). On handrail at top of steps just southeast of tank 111.

(2). Legend:

COMBUSTIBLE ALCOHOL STORAGE AREA

SEE HAZARDOUS MATERIALS REFERENCE BOOK

IN COMPOUND SUPERVISOR'S OFFICE FOR HAZARDS

AND HANDLING SAFETY

14. Catalyst Coolers

a. Replace the existing "DANGER - FLAMMABLE LIQUID" signs in the catalyst cooler areas with nine customized signs (14 inch x 20 inch "LXSIGN" having red letteriing on a white background) available from Stonehouse Signs, Inc. at $18.16 each

b. Locations:

1. Main catalyst shed (5 signs, all on south side of building, facing south).

2. Reactor unit coolers (4 signs, one on front of each cooler).

c. Legend:

DANGER

ORGANIC PEROXIDE STORAGE

EXPLOSIVE DECOMPOSITION HAZARD

WHEN NOT KEPT REFRIGERATED