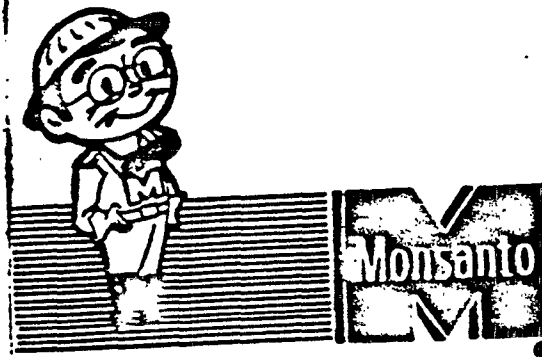
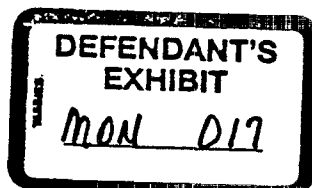


**CONTRACTORS GUIDE
TO ACCIDENT
PREVENTION**



**MONSANTO
POLYMERS AND PETROCHEMICALS
COMPANY
TEXAS CITY, TEXAS**



MAP 003161

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TO
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MON 645

MAP 003162

TO THE CONTRACTOR

This manual has been prepared as a guide to assist you in the safe performance of your work in our plant. Plant safety regulations are designed for your protection as well as ours and they should be observed! These may be supplemented, as necessary, by special departmental rules in areas where work is in progress.

As a Monsanto contractor you are required to be knowledgeable of plant safety regulations and will be expected to adhere to them when performing work in the Texas-City plant. A Monsanto supervisor assigned to the project will assist your supervision on any question they may have in the administration of this manual.

In addition, the Occupational Safety and Health Act provides that "... no contractor or subcontractor for any part of the contract work shall require any laborer or mechanic employed in the performance of the contract to work in surroundings or under working conditions which are unsanitary, hazardous, or dangerous to his health and safety." You and all your employees are expected to act in accordance with OSHA and all other applicable laws.

You must realize that safety is much more than just a set of rules. It is a vital part of your job—it is an individual responsibility. You have a safety responsibility to yourself, your family, your employer and to Monsanto.

Safety is the most important part of your work. We look forward to an injury free relationship.

P.E. Brubaker
Plant Manager

MON 646

MAP 003163

CONTENTS

Plant Security	1
Facilities	3
First Aid	3
Pressure Point Chart	5
Artificial Respiration	6
Personal Conduct	6
Clothing	8
Special Eye Protection	9
Fire Prevention	10
Lockout, Fire and Vessel Entry Permits	14
Traffic and Vehicle Operation	14
Hazards	16
Housekeeping	20

(Printed April, 1975)

iii

PLANT SECURITY

It is the policy of Monsanto Company to control the entrance and exit of employees, visitors, material and equipment into or from the company premises and to protect personnel and property through the application of the regulations and procedures contained in this section of this manual.

It will be the responsibility of the company's Plant Security Department to administer the above policy, to establish and enforce the necessary rules related thereto, to prepare all identification credentials and to make such revisions as may become necessary.

All contractor badges will be issued at Gate #2 (West Gate) unless otherwise notified. It will be the responsibility of the contractor to account for badges issued to his employees upon termination of the employee or the job.

GATE PASSES

1. Nothing will be taken out of the plant without a gate pass except items of a personal nature, i.e., a lunch box, a brief case, a purse, slide rule, change of clothes, etc., or items that would be considered normal equipment on a vehicle.

1

MON 647

2. A gate pass must be signed by an authorized Monsanto supervisor. Any regulations that may be required by that supervisor must be met prior to his signing, i.e., cosignature, inspection of material, etc.
3. The security officer may require packages or bundles or lunch boxes to be opened for inspection.
4. Special procedures apply to large contractor gang or tool boxes. See your Monsanto supervisor.

Parking facilities and a specific gate will be provided for each contractor. Limit your employees to the gate and parking facility assigned.

A VISITOR'S PASS can be issued to visitors having official business with the contractor.

Each contractor's employee or visitor will be required to identify himself before entering or leaving company property by exhibiting to the Monsanto guard at the gate his officially authorized badge or pass. Such badges or passes must be worn visible to the eye and kept in his possession at all times while he is within company property, subject to inspection upon request.

Terminating employees shall surrender their badge to their respective employing contractor before leaving Monsanto property and that contractor will return the badge to Plant Security at the West Gate.

Any contractor's employee attempting to use a counterfeit badge or pass, or a badge or pass of another employee, will be promptly taken into custody by the Monsanto guards and turned over to the employing contractor for appropriate action.

FACILITIES

Due to the crowded condition of the Monsanto Cafeteria, contractor's employees cannot be served in the plant cafeteria.

Sanitary facilities shall be provided and maintained by the contractor except where Monsanto will permit the contractor's employees to use Monsanto facilities. The employees must use the toilet facilities provided for them.

FIRST AID

1. To report serious injuries and summon an ambulance notify the guard by dialing Extension 2222. (This number is for emergency only.) Giving the correct location of the injured is the most important

MON 648

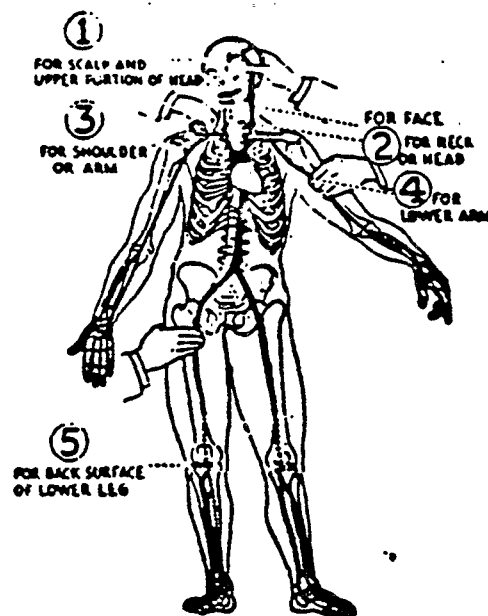
information. It is very helpful to everyone concerned if someone would direct the ambulance to the injured person.

At peak construction periods there may be a construction nurse available in the field. If this occurs the information will be made available to Monsanto. Monsanto also maintains a First Aid Dispensary located at the north side of the Main Office Building. For assistance dial 2301 (0800 - 1630 Monday - Friday).

2. Injuries or serious incidents shall be reported immediately to the contractor's supervision. It shall be the responsibility of the contractor to report such injuries by the procedures prescribed by the contractor's insurance carrier, and to report all injuries and incidents to the Monsanto supervisor.
3. Suggested steps for major injuries:
 - A. Do not move an injured person unless he is in a dangerous area.
 - B. Control bleeding by compression of wound or by use of pressure points.
 - C. Restore breathing using artificial respiration. (Mouth-to-Mouth technique most successful).
 - D. Get medical aid.

PRACTICAL FIRST AID

Where to Apply Pressure to Stop Bleeding



The Tourniquet should be used only for severe, life-threatening hemorrhage that cannot be controlled by other means.

MON 649

MAP 003166

To use pressure points to stop bleeding you should feel the pulse, otherwise you are not pressing the artery. Pressure should be sufficient to stop this pulsation.

ARTIFICIAL RESPIRATION

MOUTH-TO-MOUTH METHOD...

Place nonbreathing victim on back, face up. To clean out any foreign matter, turn victim's head to side, force mouth open, wipe out throat and mouth with fingers or cloth.

MOUTH-TO-MOUTH METHOD IN ADULTS..

... Place one hand under the back of the victim's neck and lift forcibly so that the head is tilted backward. Close victim's nostrils with your other hand.

... Take a deep breath and place your mouth tightly over victim's mouth. Blow forcefully enough to make victim's chest rise. Repeat inflations every three or four seconds.

PERSONAL CONDUCT

1. Where walkways are provided, employees shall use them. Employees shall not enter areas other than those where their presence is required in performance of their work. Do not use shortcuts through process areas or shops.

2. Care should be exercised against slipping and falling.
3. Do not leave loose objects, tools or materials on elevated locations.
4. All persons should, whenever possible, keep clear of suspended loads. Personnel are not allowed to ride on material hoists, crane blocks or crane loads.
5. Horseplay is not permitted.
6. Employees must not use compressed air to clean their clothing or point an air hose at another person. Never use compressed air of higher nozzle pressure than 30 psig to clean equipment or tools.
7. If the employee gets his clothing saturated with chemicals, gasoline, oils, etc., he should change his clothing and wash the affected body parts. Do not work in oily clothing.
8. If you have to walk in the street, walk on the left side facing the traffic.
9. Contractor supervision must report to Monsanto's construction supervisor any unsafe conditions on the job that may exist because of Monsanto's operations or activities.
10. Compressed gas cylinders must have a protective cap when not in use and must always be securely anchored in an upright

MON 650

position at all times. Cylinders are not to be transported on any winch line or cable lifting device, unless in an approved rack.

11. Bringing alcoholic beverages or narcotics into the plant, coming to work under the influence of liquor or drugs, drinking or using narcotics on plant property is strictly forbidden. Violation will result in immediate removal of the violator from the plant and permanent termination from the plant.
12. Bringing firearms or any type of explosive into the plant is forbidden.

CLOTHING

1. Approved industrial safety hard hats (skull caps and bump caps not acceptable) and safety glasses must be worn at all times. Exceptions to this rule are when the employee is:
 - A. Going to or from work.
 - B. In the contractor's office buildings; or Monsanto's offices unless the employee is performing construction work in such areas.
 - C. In any job where the wearing of such equipment constitutes a hazard to the safe performance of the work. The Monsanto supervisor in most cases will evaluate the situation and if necessary, will consult with the Loss Prevention Department.

8

2. Hard hats and safety glasses in some cases may be provided to the employee by Monsanto for the initial issue but the contractor shall be responsible for the issuance, maintenance, replacement and return of this equipment to Monsanto at the completion of the job.

3. Gloves, raingear, or other equipment shall be furnished to the employee by the contractor if the assigned work requires this equipment for safety reasons.

4. Loose clothing such as neckties, unbuttoned sleeves and the like should not be worn when working around rotating equipment.

5. Employees are not to be allowed to work without wearing a shirt. No "muscle shirts" are allowed.

6. Safety shoes are recommended for all personnel. Defective shoes or shoes with porous uppers such as sneakers, sandals, slippers, etc., should not be worn.

SPECIAL EYE PROTECTION

1. CONTACT LENSES are not to be worn in manufacturing areas, or laboratories, unless cover goggles are worn.

2. Wear approved goggles or face shield for all burning and welding.

9

MON 651

MAP 003168

3. Wear face shield when using power grinders, buffers or wire brushes.
4. Wear goggles when chipping or scraping surfaces.
5. Wear goggles when breaking out concrete, brick and similar materials with either hand or power tools.
6. Safety glasses with shaded or colored lenses are permitted to be worn during daylight hours only. Only medical exceptions are acceptable. The use of shaded or colored lens in cover goggles is prohibited.
7. No list can cover every case where you need special eye protection.
8. Safety showers and eye baths are located throughout the plant for emergency use. No connections are to be made to the equipment for any other reason.

Use good sense and save your eyes!

FIRE PREVENTION

1. In the event of fire or spill, turn in an alarm at once by calling the Monsanto guard at Monsanto phone Extension 2222 and give location of fire or spill and your name. Also 2222 can be used in any emergency.
2. In case of plant fires and spills, an alarm (described below) will sound. All trucks and cars will pull off the road and engines will be

knocked. All smoking will cease. Work will stop in the areas designated by the first number of the code.

- 1 designates the east plant from the Shops Building to the Bay
- 2 designates the west plant from the Shops Building to the concrete cooling tower (CT-8)
- 3 designates the far west plant from the concrete cooling tower west to 6th Street
- 4 designates the North 68 area
- 5 designates the buildings area—office and laboratory

All heat and spark-producing equipment will be shut down. Workers will leave the areas to an area predesignated by the Monsanto area supervisor in charge of your work. After sounding the plant "all clear" alarm or after Monsanto clearance is given, all work not requiring fire permits may be resumed. All fire permits must be countersigned by the Monsanto production supervisor who signed the original permit before that work may be resumed.

3. Alarms:

There are two alarm systems in use at Monsanto. The one most familiar to everyone is the fire and spill alarm. It is tested each Monday at 1 P.M. The other is the Emergency Procedure Alarms. So that contractors may understand and recognize

MON 652

MAP 003169

these alarms, the two systems are briefly explained below. All contractors shall explain these alarms to all their personnel.

A. Fire and Spill Alarm:

This alarm will signify that a fire or spill has occurred in some part of the plant—either very minor or major in magnitude.

One blast by the plant siren will indicate that a fire or spill has occurred. This will be followed by a repeated three-digit code on the code horns throughout the plant to indicate the area in which the fire or spill has occurred. A fifteen-second blast on the work whistle will represent an all clear alarm.

B. Emergency Procedure Alarms:

A special Emergency Procedure Plan has been adopted at this Plant which outlines a planned procedure for safe handling of personnel and equipment in the event of a major emergency. This emergency could be created from outside Monsanto Company.

When a state of emergency has been declared, personnel will be notified through the same siren and horn system but the horn signal will be thirty (30) beeps on and off over a minute but without a code. In the event that this Emergency Procedure Plan is activated,

your people should immediately make their work safe to leave and go to the Instruction Point of that area (they are marked) and a Warden or Chief Operator will give your people direct instructions.

4. Monsanto has a fire permit procedure as a part of our plant fire prevention program. Monsanto supervisors will arrange for the issuance of fire permits when needed, subject to precautions required by Monsanto policy.
5. **NO MATCHES OR CIGARETTE LIGHTERS ARE TO BE CARRIED IN THE PLANT AT ANY TIME.** Smoking, except at approved locations and times, is forbidden.
6. Open fires and salamanders for heating purposes will not be allowed. Heaters in buildings will be inspected and approved by our Loss Prevention Department.
7. Cleaning of clothing by solvents is forbidden.
8. All engines must be cut off before filling tank with fuel. Proper grounding of hose and storage device is required. When handling gasoline in small containers, a closed top safety can with a spout should be used.
9. In the event of a disaster alarm all your employees are to evacuate the plant according to the Emergency Procedure Plan which has been worked out with your

MON 653

Monsanto supervisor

LOCKOUT, FIRE AND VESSEL ENTRY PERMITS

1. Before starting work on any operational pipeline, piece of mechanical equipment or electrical equipment the proper lockout procedure must be followed. Contact your Monsanto supervisor for details.
2. All work within the plant that in any way utilizes a spark-producing tool will require a fire permit unless the area of work is an Open Area. Details of the required precautions and procedures will be worked out with your Monsanto supervisor.
3. A vessel entry permit is required before any man may enter a vessel that has previously been in service. If a new vessel is being installed in an operating unit, an entry permit is required any time after the vessel is placed inside the battery limits of the operating unit.

TRAFFIC AND VEHICLE OPERATION

Monsanto is a pedestrian oriented plant—so the pedestrians have the right-of-way. Bicycles also are numerous throughout the plant and they have right-of-way over vehicles.

1. Vehicles shall not exceed 15 MILES PER HOUR; caution shall be exercised at all times.

14

2. All drivers must possess a valid driver's license.
3. Riding on any exterior part of vehicles, except truck beds and cherry pickers with passenger platforms, and standing or leaning out of windows is prohibited.
4. Jumping on or off moving vehicles is prohibited.
5. Riding of bicycles on sidewalks, in shops and in operating areas is prohibited.
6. Keys must be left in vehicles when they are parked within the plant for emergency movement. The motor must be stopped in all unattended vehicles.
7. Vehicles must never be parked adjacent to fire hydrants or fire equipment or on roads or driveways that would hinder the passage of fire trucks or ambulance.
8. When there is a fire alarm, pull off the road, shut off the engine and do not leave your vehicle unless directed to do so. You may not restart your engine until the all clear has blown.
9. Vehicles should not be parked on any portion of plant roads except where a crew is working and the driver is with his vehicle.
10. If any road is to be blocked overnight, your Monsanto supervisor should notify the Loss Prevention Department.

15

MON 654

- 11 Vehicles are not to enter operating areas without permission from the chief operator
- 12 Do not refuel gasoline or diesel equipment while the engine is running
- 13 Cranes have right-of-way - other vehicles must give clearance to cranes.
- 14 In the event of a traffic accident in the plant, notify your Monsanto supervisor.

HAZARDS

1. All connections or interruptions to existing plant utilities or product lines will be made with the approval of a Monsanto supervisor. A work permit procedure is required for the operation of draglines, cranes, or any equipment with booms that are to be operated near electrical power lines. The field engineers will arrange for the issuance of work permits as required. All hot electrical tie-ins will be made under the direct supervision of the plant electrical department.
3. When working on a ladder, platform or piece of equipment over a road or walkway, a warning sign "man working overhead" should be prominently placed below.
4. All rotating equipment must be properly guarded. Guards shall not be removed without written permission of the supervisor. Never make repairs or adjustments to operating rotating machinery.

16

- 5 Ladders should be kept in good condition. Straight ladders should either be securely fastened at the top or a man stationed at the bottom to prevent slippage
- 6 When using a ladder or steep stairway, always face it using both hands to keep a firm hold.
7. Do not run up or down stairways. Walk and hold on to the handrails.
8. Scaffolds should be built of good quality scaffold material by competent persons. The scaffolds should be erected to afford maximum safety and sufficient work space for the workers.
9. Gas torches and hoses must not be left in vessels when the work is stopped because of the danger of leaks. This means that any time the torch is turned off, it should be removed to the outside of the vessel until it is necessary to use it again.
10. Fire protection water shall not be used for any purpose other than; (1) combatting fires or spills, (2) training firemen, (3) operational emergencies where a volume of water is needed for continued operation, or (4) where a substantial cost advantage may be realized by its use. In cases of this nature, the use of this water must be approved by the Fire Chief. No hose shall be attached to, or any fire hydrant opened,

17

MON 655

MAP 003172

by anyone except fire protection personnel (except in cases of fire or spill)

- 11 "Hot Taps" are permissible only as a last resort in case of emergency or when the expense of isolation and decontamination is unreasonable and then only with a Special Permit. "Hot Taps" are not permitted under any circumstances when the vessel or line contains acetylene, ammonia, chlorine, oxygen (of higher purity than air), compressed air or hydrogen. In the event "hot tap" work is necessary the manufacturing superintendent who is the owner of the equipment or piping must give his approval.
12. No valves, switches or any other operating equipment will be turned or operated by contractor personnel. Only Monsanto employees will operate such equipment.
13. Defective hand tools should not be used. Use the proper tool in good condition.
14. Portable electrical equipment must be of the three-wire ground type.
15. Guy lines are not to be fastened to existing plant equipment.
16. Powder activated tools are not to be used without your Monsanto supervisor's approval. Tools used for attaching material together, one being the Ramset gun, should be handled with extreme caution.

18

Only trained personnel, authorized by your Monsanto supervisor, will be allowed the use of this tool

17. The following safety measures are to be observed in the use of a powder activated Cadwell tool
 - A. Shots are to be kept in a container locked, marked and labeled.
 - B. No more than 50 shots are to be kept in a container at any one time.
 - C. On completion of work all unused shots and sparkers are to be returned to warehouse.
 - D. Precaution shall be taken to see that moisture has been removed from outside blocks and wire.
 - E. Blocks will be cleaned after each weld.
 - F. Any spilled powder or shot around weld block will be cleaned up before a weld is made.
 - G. Operator will wear safety glasses or goggles with face shield.
 - H. Operator will have asbestos glove for the hand that holds handles of molds.
 - I. Unnecessary personnel will not be permitted around while any weld is being made.
 - J. Operator will be at least arm's length from mold when sparker is used to set off charge.
 - K. A fire extinguisher shall be kept at location of operation at all times.

19

MON 656

MAP 003173