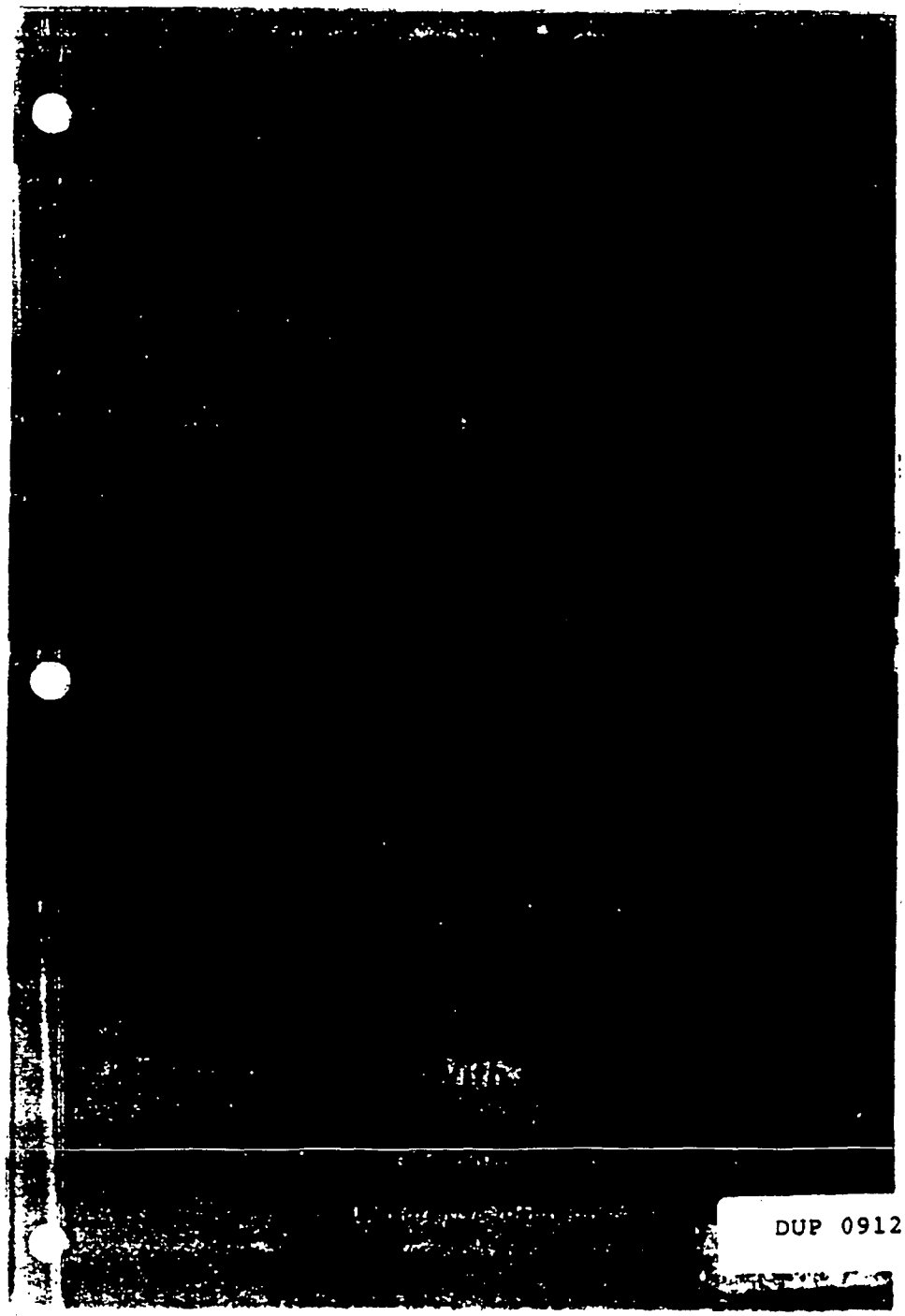

SC-DP-00600

BASIC DU PONT ENGINEERING DEPARTMENT FIELD SAFETY PRACTICES

The principles upon which Du Pont's Engineering Department executes its accomplishment of accident prevention are briefly as follows for all projects:

1. Applicable safety devices of a physical character including manufactured personal protective equipment are procured, or caused to be procured, in advance of need, whether Du Pont forces do the work or contractor forces do the work.

2. All field personnel, contractors' forces included, are required to participate in weekly educational meetings of 15 minutes each in the field, at the site of the work, in groups as are assigned to each foreman.

3. A responsible and qualified person must be assigned by Du Pont and any contractor, throughout the entire exposure period to execute all the requirements of one and two above and that portion of the safety article in that contract in accordance with Du Pont Company Engineering Department practices, government or civic regulations including any or all codes or parts thereof as may be applicable for any given work at the location at the time.

CONTENTS

THIS MATERIAL IS COLOR CODED
FOR YOUR CONVENIENCE

The WHITE pages —are of direct concern to *all* employees.

The YELLOW pages—are primarily for Mechanical, Power, and Field Employees.

A. (Personal Protective) . . . . . page 5
B. (Materials) . . . . . page 9
C. (Equipment) . . . . . page 13
D. (Standards) . . . . . page 18

The BLUE pages —are primarily for Office and Service Employees.

You will be governed by the rules for other groups if you do their type tasks.

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Revised October 1956

THIS MANUAL IS MADE AVAILABLE TO YOU AS AN INTERPRETATION OF THE SAFETY CLAUSE OF YOUR CONTRACT.

ALL OR PARTS OF CONTENTS WILL APPLY TO YOUR WORK DEPENDING ON THE NATURE OF YOUR WORK AND THE SEQUENCES OF YOUR WORK.

DUP 0912420

INTRODUCTORY EXPLANATION

This Manual has been designed as a reference to assist you in complying with the needs of this organization for Safety.

Our Safety is accomplished by a sincere and constant cooperative spirit among our employees and associates. We have found in our experience that merely to talk does not make Safety a fact.

IT TAKES ACTION!

Each and every one of us must perform our daily tasks for Safety in the same manner with which we perform the tasks of our mechanical work. Then, and then only, will Safety be a reality during our working day.

The material covered in this manual has been purposely presented in abbreviated form so as to get broader coverage of more valuable practices in a simple, positive and practical manner.

FACTS—NOT FANCY

Many years of cost compilation show that good Safety results can be had for as little as ½ of 1% of payroll dollars.

The cost of accidents is at least four times the prevention cost.

Safety Office as used in this manual means the Construction Safety Engineer on the project or his duly assigned alternates or assistants regardless of local titles.



INSTRUCTIONS FOR CONTRACTORS ENTERING INTO CONTRACTS WITH THE E. I. DU PONT DE NEMOURS & COMPANY

Inasmuch as we of the Du Pont Company recognize the many hazards of our employment and since we desire to conform to recognized Safety regulations and since further we spend much effort and money in a detailed program for the welfare of our fellow workmen, we must insist that all contractors recognize this attitude and comply with the Safety Regulations to the best of their ability. Attention is brought specifically to the following items:

1. EQUIPMENT

All contractors shall themselves provide adequate equipment for the SAFE performance of their work. This equipment shall conform to reasonable standards where the Safety Department specifically advises. Du Pont equipment may be borrowed only upon written permission from a representative of the management.

2. DEPORTMENT

(a) Contractor's men must never start working in an area or building without first having received the necessary permission, instruction, and identification from the Works (Du Pont) Management.

(b) It will be absolutely necessary for all contractors' men to post areas where it is necessary for them to do "OVERHEAD WORK".

(c) The use of intoxicants on the project, in any degree, will positively not be tolerated.

(d) Contractors' employees shall be kept conscious of fire hazards and shall observe due precaution in areas where smoking is permitted

(e) All plant traffic regulations shall be observed to the letter. Further information will be supplied on request by the Safety Office.

(f) Extreme care shall be exercised in the use of all open flame equipment, particularly fire pots.

DUP 0912422

SAFETY REGULATIONS

(Craftsmen, power, mechanical, and yard labor groups)

KNOW YOUR JOB SEQUENCES and follow them IMPLICITLY—every unauthorized short cut or omission or experimentation can be a very serious Safety hazard.

IF YOU DO NOT KNOW—ASK!!!

DUP 0912423

A—SAFETY REGULATIONS FOR THE MAN

WHAT TO PROTECT — WHAT TO DO OR USE

ABDOMEN

Wear "kick-back apron" while ripping material on power saws. Be conscious of *Hernia* and other abdominal injuries when lifting and pushing. Use the thigh when lifting objects, NOT the back muscles.

ARMS

Protect exposed skin surfaces by keeping the shirt sleeves rolled down when conditions warrant it.

Lathe and similar machine operators should roll up sleeves when conditions require.

EYES (Also see page 20.)

All spectacle-type protection (for light exposure only) should include side shields.

Have proper eye protection with you "at all times," ready for use when required.

ACID WORK—Acid Goggles:

When cutting acid lines, washing walls, fluxing metals or handling corrosives under any conditions.

CHIPPING WORK—Chipping Goggles or Coverall Goggles:

When caulking, yarning, grinding, drilling, picking, sawing*, chipping, busting, some backing-up of rivets, etc.

Dust goggles same as chipping goggles for refuse handling, sweeping, scraping, brushing, and some forms of painting (spray painting permits use of plastic eye and face shield).

WELDING GOGGLES—For gas welding—helpers require them also. (Not less than No. 4 density.)

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*When using a power saw in a high wind causing sawdust to enter the eyes, or when sawing creosoted lumber with power saws.

DUP 0912424

WHAT TO PROTECT—WHAT TO DO OR USE

EYES (Cont'd)

WELDER'S MASKS—(Helmets)—When electric welding. Similar masks with uncolored glass are required by lead burners when work is wet and sputtering.

Electric welders are required to use opaque screens or curtains as conditions require. (*Cover that arc.*)

Keep your hands clean and out of your eyes. Immediately flood eyes with clean water when you have reason to know the foreign matter is acid, plant dust, or scale. (*Go to the First Aid Station for any eye trouble.*)

FACE AND NECK

Use nitrometer-type mask or plastic shields for guarding against spraying liquids of corrosive nature or other flying particles.

Use an all-service mask to protect the face under gaseous or toxic fumes exposure.

Clean cheese cloth and skin greases applied to exposed parts are valuable in acid vapors, creosote, and unknown dusts, particularly in warm weather, *use them.*

FEET AND TOES

GOOD SAFETY SHOES—Should be worn at all times. (Tie up dragging pants legs.)

BOOTS AND RUBBERS—In wet weather—and on jobs subjected to acid liquids, sludges, etc.

FINGERS AND HANDS

Wear goat skin, horsehide, or chrome leather gloves on *all types of work* according to their respective suitability.

Canvas and rubber dipped canvas gloves are for pipe coverers, creosote workers and some special jobs.

10,000 *volt rubber gloves,* with leather protectors and carrying bag are to be used on all power lines and electrical work over 110 volts, otherwise check Safety Section.

These should be inspected as used and dielectrically tested every three months.

"*Sailors Palms*" are to be used for sewing fabrics as in pipe covering.

WHAT TO PROTECT—WHAT TO DO OR USE

FINGERS AND HANDS (Cont'd)

Extension tongs or fixtures are advisable for driving wedges, stakes, rods, etc., or while holding star drills, bull points, etc., if the holder is not operating the hammer or maul. Hold stakes with the claw and neck of your hammer.

Tape (adhesive or friction) is useful on fingers and wrists of bricklayers.

Creams and *greases* are required on creosote, contaminated materials and on some Special Jobs (if not sure, *ask*).

LEGS

Wear *good* overalls or pants at all times. Have no loose, torn or dragging fabric threatening you at any time.

Tie pant legs with twine when it seems advisable.

RESPIRATORY—(Nose and Lungs)

Required:

Dust Mask respirator when in extremely dusty atmosphere, sweeping, breaking concrete, and all prolonged or continuous exposures to *any* dusts.

(See simple "cotton pad, aluminum facelet" respirator at storehouse.)

Smoke and Fume Mask respirators have calcium carbonate and carbon filters and are to be used only on light and temporary exposure to non-toxic fumes.

All-Service Masks are for semi-toxic fumes and resemble the army type masks for use in large rooms, or outdoors, but not in tanks or small enclosures. (Be sure you have the right canister for the gas or fume involved, i.e., ammonia, nitric oxide, hydrogen sulphide, chlorine, etc. (Check Safety Section for possible instrument checks.)

Air Mask to be supplied with filtered plant air, not over 40 pounds at source and controlled by valves near face piece. To be used in enclosures or tanks where there may be oxygen deficiency, or where fumes are uncertain. (Check Safety Section for requirements when portable air compressors are the only source.)

SCALP

Have the head covered at all times as protection against acids, collision with protruding objects, as in equipment or tanks or dryers, etc.

Hard hats (skull guards) are required at all times in all areas and connecting roads and shops.

DUP 0912426

WHAT TO PROTECT—WHAT TO DO OR USE

SHOULDERS AND KNEES

Use a pad of hair felt, burlap, etc., on shoulders for carrying mortar, plaster, pipes, steel, or heavy timbers—especially if prolonged. Continued work on knees (as in cement finishing) also calls for pads.

Use *carrying straps* or *timber hooks* when carrying plate glass, sheet metal or ties, logs, poles respectively.

THIGH AND ARMS

All pointed tools normally carried in pockets are better carried in a canvas or leather tool sheath hung from the belt. Required for electricians, finishers, pipe coverers, riggers, etc. "All points down."

WRISTS

Gauntlet gloves and tapes. Acid work—long gauntlet gum gloves. Labor or mechanical work—gauntlet horsehide or chrome leather gloves.

SAFETY BELTS

Always inspect before using. (See storehouse for supply.)

They are to be used on skeleton framing, beams, on roof slopes over 15 degrees in pitch, in high winds on high elevations, towers, stacks, platforms, and in tanks or similar vessels or enclosures. (Have "lookout" for tank work.)

ALWAYS TIE BELTS ADEQUATELY, WITH LINE SHORT AS POSSIBLE. Tie to *LIFE LINE ONLY* on suspended scaffolds.

FIRE—(Also see page 32.)

Be sure you know how to turn in an alarm. Study and know the rules regarding fire regulations. You should know that the common 1- and 2-quart *Carbon Tetrachloride* Extinguishers are readily available and should be on hand for welding, melting tar, mastics and electrical fire hazards; use only where its fumes may not be inhaled. (Check Safety Section.)

Soda Acid (2½-*gallon*) *Extinguishers* are for wood fires, paper, fabrics, etc. (DO NOT USE ON ELECTRIC FIRES.)

Foamite Type (2½-*gallon*) *Extinguishers* are for oil and similar material. (DO NOT USE ON ELECTRIC FIRES.)

Carbon Dioxide (*Gas*) or *Dry Powder Extinguishers* are for general use as available.

Don't play a stream of water on HOT electric wires or services.

DUP 0912427

B—SAFETY REGULATIONS—THE MATERIAL

THE MATERIAL — WHAT TO DO ABOUT IT

ACIDS

Tying in pipelines or curing tank linings, washing brick and tile.

Use acid coat, hood, boots, rubber gloves, post signs, and rope off area. To wash brick—use goggles, rubber gloves and rubber overshoes. (Overlap all protection in the right direction.)

Oxide cleaners and soldering fluxes in sheet metal work call for the use of goggles and gloves.

BRICK AND TILE

Do not stand on loose brick or tile for any reason. Don't overload a scaffold—never pile over 24 inches high on scaffold. Be careful of flying spalls. Use gloves when possible. Do not drop on your toes or cut your fingers.

Check you tools for imperfections.

Keep brick spalls from under feet.

CARBON MONOXIDE, ETHER, TOLUENE, AND OTHER FUMES OR VAPORS

Beware of all fumes in enclosed areas. Be sure to ventilate area so the gases may escape. Never use any compressor for air mask service without special permission. (Check Safety Section.) Most fumes, vapors and solvents fire readily—take care.

ELECTRICITY

To be worked on by electricians or linemen only. (Make certain to coordinate the work of each.)

Lock switch boxes. Get full instructions from your foreman (extremely important). (See rules on "Danger" Tags, this manual, page 30.)

Always consider all electrical equipment and lines "HOT" until electric foreman checks it for you. Hot work is not permitted without *written* permission of the Field Project Manager.

GAS WELDING
LEAD BURNING

Keep compressed gas tanks outside operating buildings except on special permission. Check regulators, valves and hose daily. Avoid burns. Tie tanks vertically to a support with strong wire, chain or rope. Not more than one oxygen and one acetylene tank in one location. Keep sets 20 feet apart. Manifold set-up must follow Underwriters' specifications.

Check rules for any task "Outside of Your Line"

DUP 0012420

THE MATERIAL—WHAT TO DO ABOUT IT

GLASS

Take care not to cut hands or fingers.

Place broken glass in separate trash cans marked "Glass".

Do glazing with approved window jack, scaffold or ladders only.

Store glass safely, away from any walkway.

GREASE, OIL, PIPE COMPOUNDS, ETC.

Keep these off floors to avoid slipping. Clean up immediately.

Keep oil and grease away from oxygen tanks and torches.

LUMBER

HELPERS HANDLE WITH GLOVES ALWAYS. STACK PROPERLY TO AVOID INJURY WHEN HANDLING.

Always remove nails and barbs *or place where they do not* cause exposure.

MATCHES AND FLAME PERMITS

Available at storeroom. To be returned immediately after use or expiration of permit. (Obtain and file permits with Safety Section.)

NAILS, WIRE, REINFORCING STEEL, AND EXPANDED METAL

PROMPTLY REMOVE, BARRICADE, OR BEND DOWN ALL NAILS. TIE BACK, MARK OR GUARD ALL WIRE, RODS, AND REINFORCING STEEL, ESPECIALLY IF EXPOSED TO FOOT TRAFFIC.

PAINT

(Check flammable nature of all paints and coatings!)

Avoid holding on to slippery surfaces or newly applied paint when in the air. Wear respirator in spray painting. Use strong handles on paint buckets. Always plan for safe scaffolding or safe handling of the job—high or low. Beware of dense paint fumes and work in high winds.

SAND OR GRIT

Use respirator when breaking out concrete or any prolonged grinding or ceramic cutting.

Use hood for sandblasting and erect adequate warning signs.

Use sand on ice in winter to avoid slipping, especially on steps and walks. Act quickly on this.

DUP 0912429

THE MATERIAL—WHAT TO DO ABOUT IT

SHEET METAL

Wear gloves when carrying. Store compactly, clean up ragged edges and keep out of walkways. Hoist and lower material and scraps with rope. Take precaution with hot irons, flux acids and fire pots. Be careful while operating sheet metal tools and machinery. Analyze for "pinch points."

STEEL PLATE

Handle cautiously to avoid sprains, strains, dropping on fingers and toes.

Store out of the way.

STRUCTURAL SHAPES, RIVETS AND DARDALET BOLTS

Handle structural shapes with power equipment when possible. Check all rigging equipment (all crafts). Use goggles when backing out rivets. Rope off area where riveting. Avoid dropping bolts, nuts, or tools and equipment. Beware of hot rivets. Use eye protection for any riveting.

TARS AND HOT LEAD

Carry hot materials in ladle with ladle to one side instead of in front of you. Vent fumes if indoors. Watch the pot for fire control and sparks. Keep clear to avoid burns or scalds. Inspect equipment before each use (gauges, valves, and fuel lines). Check your fire protection equipment before starting up.

WATER—TRENCHES AND SHORING

INSPECT ALL DITCHES AND TRENCHES AND PITS AFTER HEAVY RAINS AND CHECK SHORING FREQUENTLY, AT LEAST TWICE EACH DAY. FOLLOW TRENCH STANDARDS (pages 24, 25, 26) FOR SHORING WHEN USED.

Be careful of hidden nails in water pools.

Be careful to avoid electric shocks in damp or wet places.

Avoid all water holes. They may be dangerous.

DUP 0912430

THE MATERIAL—WHAT TO DO ABOUT IT

GENERAL

MATERIALS

Check Safety Section on all radioactive and critical chemicals.

The handling of materials is in itself a large accident prevention field—work carefully, place separator blocks under materials or equipment when temporarily storing or transporting them. Don't be caught behind the tailboard of a truck and some other object or building. Don t let heavy materials throw you off balance while handling. Use "Softeners" for metal on metal.

DUP 0912431

C—SAFETY REGULATIONS—EQUIPMENT

EQUIPMENT—WHAT TO DO ABOUT IT

BELT SHIFTERS

Always shift belts with shifter—not by hand.

COMPRESSORS—HOSE

Check Safety valves and receiver drain. Always check couplings. Use air hose for air only or combination hose if available. Do not use steam or water hose for this service.

Keep welder's cable, hoses and all temporary electric lines 6'6" in air over *passageways*.

Inspect hose used.

CRANES

To be gear or hydraulic powered. No live booms permitted. Load must power up *and* power down.

ELEVATORS—Operation of material towers and elevators.

Make one man responsible for signals at each end of operation.

Use Standard Bell Signals and post same—each level.

Use gates at all temporary openings and mark clearly.

No passengers on elevators—materials only.

To be guarded and properly manned at both ends and each level.

Inspect all power equipment daily if in use:—clutch and brakes especially. Keep brakes protected from rain.

HOISTS—POWER

To be manned by capable operator, to be anchored down, and posted with bell signals. Keep brakes protected from rain.

LADDERS—STRAIGHT AND EXTENSION

(See page 27.)

MACHINES—SHOP TYPE EQUIPMENT

Carpenter	Pipefitter	Power House
Lead Burner	Tinsmith	Machine Shop
Millwright	Welders	Electric, etc.

All to be guarded before and during use. Inspect daily before use, for cutting, fire and electrical hazards. See that all temporary cranks and wrenches are removed before starting up. **Do not attempt to remove material or correct defects of operation on machines or tools while under power or in motion.**

DUP 0912432

EQUIPMENT—WHAT TO DO ABOUT IT

MACHINES—Field Type

Always shut down before servicing, repairing or investigating questionable function (like mortar mixers, etc.)

MOTOR VEHICLES

Stop at crossings marked STOP. Watch all intersections. Walk facing traffic. Ride trucks or trailers cautiously. Mount and dismount carefully when vehicle is NOT in motion.

PRESSURE VESSELS AND LINES

Mark clearly with signs when under pressure.
Check foreman for Hydrostatic test regulations.
Avoid air or gas testing. (Check Safety Section.)

SAFETY SCAFFOLD PLANK

Are (2-in. x 10-in. x 8-ft.), (2-in. x 10-in. x 12-ft.), (2-in. x 10-in. x 16-ft.) straight grained spruce, painted 12-in. each end. (12-in. minimum overhand on any scaffold.) In absence of safety planks use only Class "A" lumber for any span or temporary decking and supports. Do not burn, nail or drill safety planks.

SAFETY SIGNS

Use sufficiently. Remove when useless.

SCAFFOLDS (Also see pages 22 and 23).

Only three types of scaffolding advisable:

1. Carpenter's horse single or in pairs decked with safe planks. (Single horse with 6" ridge plate minimum.)
2. "*A*" *frames* single or in pairs (do not stand on top rung).(2 planks wide—preferable, 2 planks wide *and* 2 planks thick for heavy loads.) "*A*" *ladders*—1-12" plank wide permissible. No work from one single extended center section.
3. Patented scaffolding decked with safety plank, tie in every other lift. (Toeboards and chicken wire as needed.) Chairs, boxes, barrels or anything except the above are not safe. (Check all *swinging* scaffold apparatus with Safety Section.)

DUP 0912433

EQUIPMENT—WHAT TO DO ABOUT IT

TANK WORK PROCEDURE

Boil out if used previously. (Check Safety Section.)

Ladder to enter, Safety Belt on man entering. Possibly air mask or air pump or both.

Open electric circuits by removing fuses and locking switch boxes, or disconnect belt or shaft supplying power to inner parts or mechanism.

Helper as lookout *outside tank*, always.

Blank off pipelines connected to tank. See section on Carbon Monoxide (page 9).

Pick thin men to enter tanks, 18-in. minimum diameter manhole; otherwise check Safety Section.

TAR POTS—Fire: LEAD POTS—Fire:

Pressure fired vessels to be guarded against leaks, overheat, and inflammable vapors.

Guard the area or local materials from fire hazards and protect walls and floor from spillage.

TESTING EQUIPMENT

Use hydrostatic procedure according to Standards. Mark lines, valves and tanks under test in approved manner. See section on Pressure Vessels and Lines (page 14).

TOOLS

Check condition of all hand tools daily. Only A-1 condition acceptable. Guard against theft. Do not abuse, abandon, or lose any tools. Learn how to use the specific tool so as to prevent skinned knuckles, back sprains, etc. (See page 17.)

TRACTORS—(Trackscavators and Fork Lift.)

Do not speed, or risk overturning on broken or sloping ground. Disengage switch while refueling. Always have a fire extinguisher available.

VIBRATORS

Avoid electric shock by keeping equipment as dry as possible. Do not drop vibrator element on toes. Beware of concrete splash in the eyes.

WELDING MACHINES

Should not be located over passageways or in wet places. Should be hooked up by electric lineman only (550 volts). Take care in transporting due to top-heaviness. Guard welding cables from shorts, acid, and traffic. Always ground them to independent water service lines.

DUP 0912434

GENERAL

EQUIPMENT—WHAT TO DO ABOUT IT

MOTOR TRUCKS (Transport)

Ascend and descend on ramps or steps as provided. Don't jump from any vehicle whether it is in motion or not. Drive carefully. Check horn and brakes. It is required that you sit down while riding. Signal by horn (3 taps) before backing up. **Truck drivers are responsible for safe transportation of all passengers. Feet and legs "on board."**

MUSHROOMED TOOLS

You are to check these every day.

Take mushroomed tools for dressing as the mushroom head appears. Don't wait until the end of the shift or job.

PLANT EQUIPMENT

Do not use equipment belonging to other contractors or other departments without permission from an *assistant superintendent*, or Safety Section will check and advise.

WELDING EQUIPMENT

Regulators.

Hose.

Torches.

This equipment is to be inspected by the issuing supervision every 60 days at least.

BE EVER MINDFUL OF
EYES, FINGERS AND TOES

THERE IS NOTHING ON THESE PAGES WHICH
IS NOT FOR YOUR OWN BENEFIT

RETURN EXCESS TOOLS, GOGGLES, HARD HATS, SAFETY BELTS, ETC. TO THE ISSUING STOREHOUSE AS SOON AS YOU ARE THROUGH WITH THEM—THIS IS VERY IMPORTANT

DUP 0912435

Check rules for any task "Outside of Your Line"

EXPLOSIVE TOOLS

Requirements for Safe Use:

Irrespective of the make, type or size, all explosive tools are hazardous. Under some conditions they are dangerous to the point of being lethal weapons. They can be used safely and to advantage, however.

RULE 1

The operator must be *carefully selected*, prior trained, and every job or major task must be assigned separately by adequate authority *day by day*. This shall be done by the issuance of a daily written permit authorizing use of the tool for a specifically named job. This is required so that *specific caution* will be given for each task. Jobs, tasks, applications and working conditions are so variable that no one set of rules could cover all possible errors of judgment or conditions of the use of these tools.

RULE 2

The following basic planning considerations *MUST BE FOLLOWED*.

(a) The tool must be suited to the nature of the work and "materials" to which it is applied. (Look for possible hidden obstructions and what is on the "other" side.)

(b) Auxiliary parts such as type of ammunition charge, pins, slugs or studs *must* be of the proper specifications for the tool itself, as well as for the work at hand.

Follow all manufacturer's recommendations, limitations and basic regulatory data. This also applies when reordering ammunition and supplies after tool has been in use for some time.

(c) Operators and helpers and nearby workers shall have on their person all personal protective equipment necessary. Eye and face protection, foot guards as protection from spalls "only" depending on the working position of the operator.

(d) The line of fire whether up, down or across must be cleared of all personnel whether or not they are in direct view. (Don't assume you can't shoot all the way "through" anything.)

DUP 0912436

D—SAFETY STANDARDS

SAFETY STANDARDS DETAILED

The Safety Standards as outlined on the following pages are provided so that you may have ready reference to some of the more detailed Safety regulations.

These standards are only minimum requirements to cover average conditions and in case of doubt, your supervision and the Safety Section should be contacted. Your cooperation with all details pertaining to Safety is necessary if we are to eliminate all injuries.

Best results can be obtained if these standards are kept readily *accessible* and *referred to frequently*.

TOOL BOX MEETINGS

Each foreman will hold a Safety meeting with his men every Monday at the beginning of the shift. The purpose of this meeting is to insure that every man on the job receives all the Safety information developed and to renew Safety effort and thought on a forecasted basis.

In order to put across Safety to every man in a gang, it is necessary that the foreman prepare his 15 minute talk before the meeting. Material for this meeting can be obtained from the Weekly Forecast or Weekly "Objective" Card. Other current topics will be supplied through the Safety Section.

This is in compliance with the "Educational Requirements" in the contract clause under Safety and Health Heading.

DUP 0912437

SAFETY STANDARDS

SAFETY TASK ASSIGNMENTS

Safety Task Assignment is showing or explaining, or both, to each employee the Safety application that pertains to the job he is to do.

It is the responsibility of Supervision, from Superintendents down to Gang Foremen, to give Safety Task Assignments (S.T.A.) to all employees, either individually or in a group, before they actually begin any assigned task. The Safety Task Assignment may only require a few words, but in many cases will require actual demonstration of how the job can be done safely and the pointing out of the hazards that may be or will be encountered in this task.

You can protect yourself from possible criticism only by being sure that every employee understands thoroughly every Safety Task Assignment given to him on every job he is to perform. There is never any excuse for this alibi, "I didn't understand what I was supposed to do." Remember . . . IF THE PUPIL HAS NOT LEARNED, THE TEACHER HAS NOT TAUGHT.

PROCTOR SYSTEM

The gang foreman will select one member of his gang to act as Safety Proctor for a 10- to 30-day period. The foreman should exercise great care in selecting the Safety Proctor as the man selected should be a Safety-conscious worker and a worker who really believes in Safety enough to be analytical and constantly observant over the members of his crew or gang.

The Proctor will be given special identification to denote him as Safety Proctor of his gang.

The duties of the Safety Proctor are as follows:

(a) To observe and discuss *with the foreman* any unsafe working conditions encountered by the gang on a task-by-task basis.

(b) To be on the lookout for any unsafe practices committed by the gang and discuss these unsafe practices *with the foreman*.

(c) Act as Safety Inspector for his gang and insist on housekeeping, clean-up and orderliness.

(d) Aid the foreman in preparing his Monday morning Safety Meeting and make a short talk himself outlining his observations of the past week.

DUP 0912438

3

SAFETY STANDARDS

PROCTOR SYSTEM (Cont'd)

It is understood that the Safety Proctor is to make *all reports to the foreman* who will in turn take the corrective measures to remedy inadequate conditions. The duties of the Safety Proctor are not to interfere with his regularly assigned duties.

There is no doubt that an additional man in the gang with added interest to note unsafe practices will help your Safety performance.

"Pick a tactful man for Proctor"

GOGGLES

The standard cup-type goggles or spectacles should be issued to each man when employed and worn in accordance with the following rules:

Every field employee, including their direct supervision, must have goggles on his person or spectacles over his eyes, during the entire time he is on the job. When not in actual use over the eyes, the goggles shall be carried on the person around the neck. This practice will insure having eye protection when and where it is needed.

Any special goggles or shields for certain jobs must have approval of the Safety Section.

Goggles or spectacles are precise pieces of equipment. Every employee is to be notified that his goggles or spectacles are charged personally to him.

The following specific operations are worthy of special consideration for eye protection.

1. Machine shops at all times. Anyone working in or visiting shop will be required to wear goggles or safety spectacles.
2. While operating any power-driven saw, planer, or similar woodworking machine. (Special goggles or shields may be used on some operations with permission of Safety Section.)

DUP 0912439

SAFETY STANDARDS

GOGGLES (Cont'd)

3. While operating any power-driven drills, either for metal or wood, whether portable or stationary.
4. While operating rock drills, jackhammers, air spades, concrete vibrators, and similar devices.
5. While using picks or mattocks in frozen ground, or rocky earth.
6. On any chipping or percussion operation that may throw particles. This includes any operation involving striking of metal on metal.
7. For scaling or grinding work, or any dusty operation.
8. Any employee holding a ladder for another employee must wear goggles.
9. Handling hot liquids, molten metals, corrosive or harmful gases or liquids. (Use special acid goggles or shields.)
10. For protection against harmful light rays, such as those given off by welding and similar operations. (Welders and helpers use special goggles or shields.)
11. Men working with all or any of above must also wear goggles as specified.

In addition, goggles must be worn over the eyes whenever there is any possibility of danger to the eyes from any source.

It is difficult to say when goggles may be left off with safety. It is only common sense to wear them whenever your eyes may be in danger. No reason for NOT wearing goggles is good enough to excuse the possible danger to your sight.

SAFETY SHOES

In an effort to eliminate serious toe fractures, every field employee will be expected to wear a pair of approved Safety shoes.

DUP 0912440

WOODEN SCAFFOLD SPECIFICATIONS

Pole Scaffolds Not More Than 25 Feet in Height

MEMBER	TYPE OF SCAFFOLD				
	Stone Masons 75 lbs.	Bricklayers 50 lbs.	Lathers, Plasterers 30 lbs	Carpenters 20 lbs.	Painters 20 lbs.
Ledgers	2" x 8"	2" x 8"	1" x 6"		
Poles	4" x 4"	2" x 6"	2" x 6"	2" x 4"	2" x 4"
Stringers	1" x 6"	1" x 6"	1" x 6"	1" x 4"	1" x 4"
Bearers	2" x 6"	2" x 6"	2" x 6"	2" x 6"	2" x 6"
Putlogs	4" x 4"	4" x 4"			
Putlogs on edge nailed	2" x 6"	2" x 6"	2" x 6"		
Braces	1" x 6"	1" x 6"	1" x 6"	1" x 4"	1" x 4"
Spacing poles (Longitudinal max.)	8'0"	8'0"	8'0"	8'0"	8'0"
Spacing poles (Transverse)	5'0"	5'0"	5'0"	5'0"	5'0"
Spacing ledgers (Vertical)	6'0"	6'0"	6'0"	6'0"	6'0"
Planking	2" x 10"	2" x 10"	1¼" x 12" (net)	2" x 10"	2" x 10"
Toeboards	2" x 6"	2" x 6"		1" x 6"	
Toeboards if nailed in center	1" x 8"	1" x 8"			
Handrails (Height)	42"	42"		42"	

Only sound lumber is to be used in wooden scaffold construction.
Scaffolds are to be tied into building at least every 12 feet.
Hand Rails, Toeboards and Deck Planking for patented scaffolds same as above.

DUP 0912441

SAFETY STANDARDS

SCAFFOLDING

A. Patented—Metal (Sectional)

1. Make provision for uniform, level and compacted footing on earth bottom.
2. Use no less than 6" x 6" foot plates—do not use wedges or miscellaneous scrap of any kind for underpinning.
3. Install toeboards on deck levels.
4. Provide handrails at 42" above deck.
5. Tie into structure with heavy form wire every other lift.
6. Brace large areas—crisscross from extreme corners.

B. Patented—Metal ("Tube and Clamp")

1. Make provision for uniform, level and compacted footing on earth bottom.
2. Use no less than 6" x 6" foot plates—do not use wedges or miscellaneous scrap of any kind for underpinning.
3. Install toeboards on deck levels.
4. Provide handrails at 42" above deck.
5. Tie into structure with heavy form wire every other lift.
6. Brace large areas—crisscross from extreme corners.

C. Steel Beam (Outrigger—Suspended)

1. Secure inside ends of outriggers to concrete or steel with bolts and plates (not cable, reinforcing rods and wedges).
2. Inspect ratchets and dogs and cables on each winch spool.
3. Lap decking 1' and provide handrails and wire. (See page 14.)

D. Swinging Stages, Floats, Chicken Walks, Knee Brace and Cantilever Types

Each and every such device as in (D) above must have the approval for use by the Superintendent of the craft involved for propriety to the work, and for design and strength.

DUP 0912442

SHORING AND SLOPING OF EXCAVATIONS

All excavations are to be shored or sloped if there is ANY danger or a *possibility* of caving.

Figures (1) and (2) show the type of shoring required on any trench. Figure (1) shows sheet piling added with first depth complete. Figure (2) shows shoring full depth. Figures (1) and (2) are to be used on all depths exceeding 4'6", *except* where the Area Engineers' signify otherwise. Figure (3) and Figure (5) show the types of shoring to be used in all cases less than 4'6", **except where the Area Engineers' signify otherwise.** Figure (4) shows the way excavations are to be sloped when type of work and location permits. All sides are to be sloped 1 to 1 and spoil banks are to be kept at a minimum of 3'0" from edge of excavation.

In all cases additional precautions by way of shoring and bracing must be taken when excavations are made in locations subject to vibrations from railroad or highway traffic, the operation of machinery or other sources of vibration and after heavy rain.

KEY

A—Maximum of 4'0".

B—4" x 4".

C—2" x 12".

D—If possible, spans should not exceed 4'0". Under no circumstances are spans to exceed 6'0". For spans 4'0" to 6'0", 4" x 6" walers must be used.

E—4" x 4" if width of trench is 1'0" to 3'0".

E—4" x 6" if width of trench is 3'0" to 6'0".

E—6" x 6" if width of trench is 6'0" to 8'0".

E—Suitable trench jacks may be used in place of timbers in Figure 5.

F—2" x 6".

*Assume full responsibility.

DUP 0912443

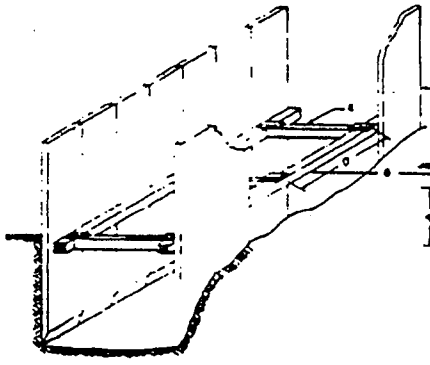


Fig. 1
**Sheet piling added
First depth complete**

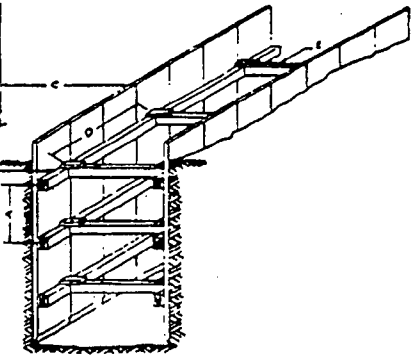


Fig. 2
Shoring full depth

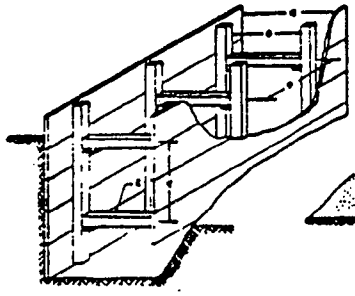


Fig. 3

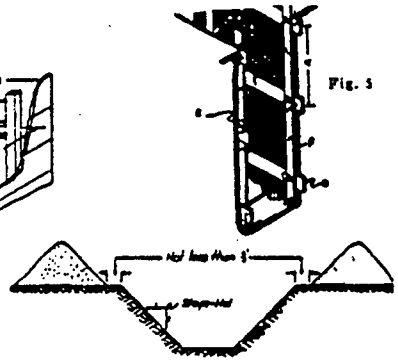


Fig. 5

Fig. 4

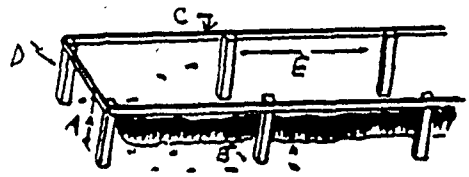
DUP 0912444

BARRICADE SPECIFICATIONS

"He who creates any hole must barricade it."

Many serious accidents have been caused by improper barricades which have been poorly constructed out of various types of material. In order to improve this condition, the following standards are hereby set:

1. Semi-permanent wood barricade



All openings on the ground or on *building floors* must be barricaded *immediately* upon development.

KEY

A—42".
B—Minimum 3'.
C—1" x 4".
D—2" x 4".
E—Maximum 8'.

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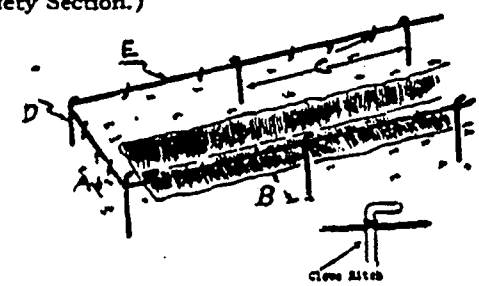
2. Temporary rope barricade

Rope barricades are not always suitable above ground level. (Check Safety Section.)



KEY

A—42".
B—Minimum 3'.
C—Maximum 20'.
D—½" steel rod.
E—⅜" rope.
F—Red cloth flagging 8' on center.

DUP 0912445

LADDERS

"Metal ladders must not be used near or for electric service."

1. Straight ladders shall be so placed that the distance of the base of the ladder from the object against which the ladder is leaning is ¼ of the length of the ladder. Straight and extension ladders shall be tied at the top when in use.
2. Extension ladders must not be taken apart in order to use either section separately.
3. When ladders are found to be lacking in any safety device, or are found to be defective in any way, such ladders must not be used. Ladders found to be too defective for repairs are to be destroyed.
4. Defects in wooden ladders may be concealed by the use of paint. For this reason, ladders of this type must not be painted, except for necessary identifying marks.
5. Ladders should not be used as skids, braces, scaffold members, or for any other purpose than that for which they are intended.
6. In the event it is necessary to place a ladder over a doorway, the door must be roped off and signs erected to warn users of the door of the ladder's presence.
7. Hand lines shall be used to raise and lower material and tools.
8. Frequent changes in a ladder's position will forestall accidents caused by reaching too far in any direction while working from the ladder.
9. Users must always face ladders when ascending or descending. A helper shall hold ladder during tying or untying in No. 1 above.
10. Only one man on a ladder at any one time.
11. Stepladders must not be used as straight ladders.
12. The platform of a stepladder should never be used as a top step to stand on.

DUP 0912446

3

SAFETY STANDARDS

USE OF CONTRACTOR'S EQUIPMENT

Du Pont employees must not use contractor's ladders, scaffolds, scaffold boards, tools, and other equipment.

This means that the contractors' ladders, scaffolds, etc., are not to be used by Du Pont employees, even though they may be erected at the point where it is desired for a Du Pont employee to work. The only exception to the above is after permission has been obtained from the Contractor Superintendent and the Du Pont Safety Section.

ORDERLINESS

1. Each gang foreman and each craft is responsible for clean (progressively) areas in which they are working.
2. All trash and lunch papers should be placed in trash cans. Yellow flags should be used to indicate trash that is to be removed.
3. Special care must be taken not to block or partially block any door, passageway, safety exit, fire fighting, or Safety equipment with materials or equipment.
4. Dirty or oily rags must be kept in fireproof metal containers.
5. All materials must be piled, stacked, or stored in a neat, orderly manner. Use "Softeners" when stacking heavy metal-on-metal objects in fixed storage or on trucks and trailers.
6. All storing inside or outside shall be parallel to or at right angles to a building line or fence line.

SAFETY PROCEDURE FOR CRANES AND DRAG LINES NEAR OVERHEAD TELEPHONE AND POWER LINES

Under no circumstances will any cranes, drag lines, backhoes, hoists, power shovels, or similar equipment, swing within 15 feet or less of overhead electric lines and telephone lines. If it becomes necessary that work be done that would involve closer operation to the lines, work is to be stopped and the Electrical Craft Superintendent and Assistant Field Superintendent in charge of crafts are to be consulted.

These individuals will decide whether the power is to be cut off or the work to be performed in some other manner.

DUP 0912447

SAFETY STANDARDS

NIGHT OPERATION OF EQUIPMENT

Extreme caution should be exercised by all operators of equipment when working after sundown.

1. All vehicular equipment is to be checked every 10 days for adequate headlights, tail lights, brakes, and horn. When any of these items are not in satisfactory condition, repairs must be made before the equipment is released. It is the responsibility of the individual operator to report any items not in satisfactory working order at any other time, and to see that necessary repairs are made before continuing operation.
2. An effort should be made to keep equipment on an established road, especially when "walking it" from place to place.
3. If it becomes necessary to travel off an established road or to travel cross-country with a piece of equipment, the terrain should be inspected for possible hazards. A truck or pickup equipped with a spotlight can be used in many cases to precede the equipment and perform this inspection.
4. All vehicular equipment, except passenger cars and pickups, which may be used for night operation is required to be equipped with three signal flares, in addition to the above-mentioned headlights, tail lights, brakes, and horn. In case of a breakdown at night along any road, the flares must be used as a warning to approaching traffic. A flare is to be spotted a minimum distance of 150 feet to the front and a flare spotted a minimum distance of 150 feet to the rear of the parked vehicle with a third flare placed on the right of way by the equipment. It is recommended that passenger cars and pickups which are used for night operation be equipped with a flashlight for emergency use.

DUP 0912448

"DANGER" TAGS AND LOCKS

The Construction Forces on this Project will use only one type of "Danger" Tag, a Red and White "Stone House No. 88." (See Safety Section.)

1. USE

"**Danger**" **Tags**: Shall be used *only* for the purpose of prohibiting operation of a valve, switch or piece of equipment.

2. PERSONS AUTHORIZED TO ATTACH

"**Danger**" **Tags**

(a) Electrical switches and other electrical devices must be tagged by an electrician. After the electrician has placed his tag, tags may also be attached to the same device by other persons or crafts involved. The electrician must not remove his tag or operate the device until all other tags have been removed. Fuses or heating elements must be removed from the device or the device must be locked by an electrician before placing his tag as additional protection.

(b) In cases where more than one mechanic is working on tagged equipment, each mechanic shall attach his individual tag with his own signature, date and payroll number. [Except as outlined in (c) below.]

(c) Sectionalizing valves on the ends of headers, main entrance switches to buildings or main switches at substations on outside power lines to which work is being added which may extend over several weeks or months must be locked as well as tagged. This will be done by the Craft Superintendent of the craft or crafts involved, or the Area or Division Engineer of the respective area.

(d) If a "Danger" Tag is required on work of a few days more than one shift, persons attaching tags on the first shift must remove their tags at the end of the shift and the person or persons involved in the second shift must attach their own tags with signature, date and payroll number. The same would apply to the third shift.

(e) Tags required to remain for a period longer than twenty-four hours must be signed with payroll number and date, and attached by the Craft Superintendent or the Area or Division Engineer involved. All "Danger" Tags must be signed, with payroll number and date, by only one person and that to be the person attaching the tag.

(f) Lines or circuits dealing with acids, inflammable fluids, high pressure steam, high or low voltage electricity, etc., must be locked as well as tagged, and any deviation from this rule must be approved by the Craft Superintendent and the Area or Division Engineer involved.

DUP 0912449

"DANGER" TAGS AND LOCKS (Cont'd)

3. PERSONS AUTHORIZED TO REMOVE

Only the person whose signature and payroll number is on the tag may remove "Danger" Tags. In the event of unavoidable absence of the signer, the Craft Superintendent under whose supervision the signer worked or the Area or Division Engineer of the area involved may remove tags.

4. RESTRICTIONS

"Danger" Tags

(a) Only one person may place signature, date and payroll number on a "Danger" Tag. Any number of "Danger" Tags may be attached to a valve, switch or device to properly protect persons or crafts involved. Operation is prohibited under any circumstances until all tags have been removed. In the case of an electric device, the electrician's tag is to be the *last* tag to be removed. Persons removing tags are responsible for the satisfactory completion of the work they were doing for operation, including reinstallation of guards and making sure all persons affected by the tag being removed are so informed and warned. No work is to be done on any operable equipment, until operation of same is prevented by use of the "Danger" Tag. All tags are to be destroyed when removed.

(b) When the device has been accepted by the Operating Department, the Construction Department tag will be removed by the person who has signed the tag, and a similar one attached by the proper Operating Department authority. Tags installed by the Construction and Operating Departments **may of necessity** overlap. **(Construction positively will not accept equipment or lines from operations prior to their having been made safe from process hazards.)**

5. WARNING

Any person who operates a valve switch or device to which "Danger" Tags are attached will be subject to immediate dismissal. The foregoing applies likewise to unauthorized removal of "Danger" Tags.

6. RESTRICTED AREA

Is an area, building or workplace where the number of men, kinds of crafts and specific nature of work, time of the work and conditions of doing the work are subject to special procedure and special authorization. Stay out unless fully authorized to go in.

DUP 0912450

SAFETY STANDARDS

FIRE PREVENTION

1. REPORTING A FIRE

(a) Report all fires in accordance with current site requirements. —Learn how to do and who to notify.

(b) Give exact location of the fire to person answering telephone. If possible, tell what is burning.

2. FIRE EXTINGUISHERS

(a) Fire extinguishers, fire water barrels, and buckets are to be used for fire only. Do not use them for any other purpose.

(b) Do not move fire extinguishers from one location to another. Contact Fire Department for this.

(c) Should you use a fire extinguisher on a fire, call Fire Department at once so that the fire extinguisher can be recharged.

(d) Should either a soda-acid or foamite type fire extinguisher be placed in operation, the entire contents must be used. Don't try to stop them—this is dangerous.

(e) The following table indicates the type of fire extinguisher to be used on certain fires:

KIND OF FIRE	USE THESE EXTINGUISHERS
Class "A"	
Wood, paper, rags, etc.	Water, pump cans or soda acid.
Class "B"	
Oil, grease, gasoline, etc.	Foamite, carbon dioxide or dry powder.
Class "C"	
Electrical	Carbon dioxide, dry powder, carbon-tetrachloride.
Class "D"	
Automotive	Carbon-tetrachloride.

DUP 0912451

SAFETY STANDARDS

FIRE PREVENTION (Cont'd)

3. FLAMMABLE LIQUIDS

(a) In quantities of less than fifty (50) gallon drums, all flammable liquids are to be contained in "safety" gasoline cans. These cans are to be painted red and lettered according to their contents. Drums and tanks of fifty gallons or more must be painted and lettered as to their contents and must be placed inside a barricade. "No Smoking" signs will be erected by the Fire Department around the barricade enclosure.

(b) No gasoline is to be stored inside any building at any time unless authorized by Fire Department.

(c) No blow torches, lead pots, etc., are to be started inside a building. No gasoline operated equipment will be permitted in use inside a building unless authorized by Fire Department.*

*Fire Department sometimes means Safety Department.

4. TEMPORARY HEATING

(a) Care should be taken that all temporary heating units are installed in accordance with recognized fire protection standards (contact the Fire Department for these).

(b) Wherever salamanders are used, extreme caution should be taken to prevent accumulation of carbon monoxide gas through lack of proper ventialtion. All salamanders should be vented when used in confined areas.

DUP 0912452

SAFETY REGULATIONS

(Office and Service Groups)

KNOW YOUR JOB SEQUENCES AND follow them IMPLICITLY—every unauthorized short cut or omission or experimentation can be a *very serious* Safety hazard.

IF YOU DO NOT KNOW—ASK!!!

DUP 0912453

OFFICE WORKERS

A detailed analysis of accident possibility indicates very clearly that office workers and non-manual employees are exposed to many hazards and that to avoid personal injury they must exercise reasonable care and good judgment in the performance of their daily work—just as do the men in the field.

1. A desk or cabinet drawer or packages left open are a very serious collision and tripping hazard. Keep them closed and out of the way. Don't pinch your fingers while closing them.

2. Tilting a chair back in order to get in a more comfortable position is a widespread practice and a bad one. Many people have been injured due to chairs slipping out from under them or breaking due to the added strain that such a position places upon a chair. Don't do it.

3. The use of pins to fasten papers together has been the cause of many scratched and pricked fingers. All other fasteners should be handled carefully. Don't use pins.

4. Fingers may be cut when handling any paper. Avoid this by being careful.

5. Any person who receives a cut, scratch, bruise, (including blood and water blisters) sprain, strain, or any other form of injury, no matter how slight and regardless of whether or not the skin may be broken, must report immediately to the First Aid Station for treatment. First Aid supplies must not be kept in the offices.

6. Pencils, pen points, scissors, ditto knives, etc., should be used and carried in such a manner that the sharp points cannot cause puncture wounds to their owners or others. Carry them point down in pocket, when not in use, and not between fingers with point in palm of hand.

7. Defective chairs and desks or any other equipment are hazardous and may result in injuries. Don't keep such equipment in service.

8. Cords on electrically operated office machines may cause people to trip and fall if left on the floor or across passageways. Inspect before short circuits, not after.

9. Many persons have received black eyes from walking into partly open doors. Keep them closed or opened all the way back against the wall in order to avoid this danger.

DUP 0912454

OFFICE WORKERS (Cont'd)

10. Orderliness is the keynote of Safety as well as efficient workmanship. *Keep your desk clean and neat.* Orderliness is 95% of most safety.

11. No horseplay. Don't shoot paper clips and wads of paper with rubber bands, etc., or engage in any of the practices that may come within this term.

12. A standard four-drawer file cabinet can be very dangerous as it may upset when the top drawer is opened if the top drawer happens to be heavily loaded and the lower drawers are empty or filled with lightweight materials. Such cabinets should be fastened to each other or counter-weighted (80 pounds near bottom rear).

13. Electric fans can inflict serious hand injuries. Keep them off desks and have them located high enough above the floor to be out of reach. Put screen finger guards near controller of desk types if used.

14. If five-gallon glass bottles are needed for drinking water they should be covered with canvas or rubber to protect people who handle them from possible cuts in case of breakage. The standard wooden carrying box should be used.

15. Don't walk headlong or too hurriedly from rooms into corridors, especially dark ones. When walking in corridors, keep to the right, particularly at corners.

16. Don't drive nails in walls to hang file boards and other articles —use cup hooks or other suitable devices. See Safety Section if in doubt.

17. KEEP STOREROOMS AND REST ROOMS CLEAN AND ORDERLY.

18. Don't store combustible material closer than 6 inches to any steam pipe, radiator, or heat source.

19. Don't heat stoppered bottles by placing them on radiators or steam pipes. They may get too hot and explode with serious results from flying glass.

20. Take time enough to be safe when using stairways. Never run on stairs, especially with high heels. Keep at least one hand on rail.

DUP 0912455

OFFICE WORKERS (Cont'd)

21. Don't place articles on window sills, filing cabinets, etc., which may cause injury if they fall.

22. Be careful to keep hands free when raising or lowering windows, also when closing doors, gates, and drawers.

23. Knives and blades should never be placed in desk drawers with blade open. Don't use makeshift tools.

24. Beware of hernia, sprains, strains, and splinters from lifting or shifting equipment and supplies.

25. Never deposit oily cloths, glass, or blades in waste baskets.

26. When out of the plant observe the rule which specifies the left hand side of the road for pedestrians. Look both ways before crossing roads or stepping onto road from behind a parked car or a blind corner. When you walk avoid ankle spraining objects.

27. When operating a motor vehicle, drive with care and watch for pedestrians and railroad crossings. The trains have the right of way. "Don't speed."

28. Familiarize yourself with all regulations in the "Manual of Safe Practice and Information for Employees" which may now or at some future time apply to you depending on *what you do or where you go.*

29. Look out for broken bottles, porcelain faucet handles, wet, slippery, soapy, waxy, or icy floors or walkways, and tripping door mats.

30. If you have smoking privilege, *be careful.*

31. Keep an eye on sanitation. Guard your health.

GUARDS, FIREMEN, AND SERVICE EMPLOYEES
(Non-Mechanical)

1. The nature of this work (PROTECTION) makes you a logical one to assist in the enforcement of all Safety rules when you can. **Everyone, and you particularly, is authorized and requested to caution with discretion anyone on the plant whom you know to be breaking any rule whether it be strictly safety or department.**
2. Although you may be called on for emergency service from time to time do not expose yourself *uselessly*. For example:

   Falling off fire truck, accosting suspects, plant traffic and parking hazards, approach to or traffic through buildings in emergencies or at times of suspected trouble, be careful to have enough light when making patrol rounds of the plant at night and during icy, winter months.
3. Keep yourself adequately protected from the elements in all weather.
4. Keep Safety conscious in all your task performances, large or small.
5. Discipline yourself to comply with the general plant Safety regulations listed elsewhere in this manual.

"SET THE EXAMPLE"

"THE practice of Safety must be a living dynamic thing and *not* a static or lip-service routine."

●

DUP 0912457

Check rules for any task "Outside of Your Line"

INFORMATION FOR FOREMEN

The following items are placed in your hands primarily as a check by yourself on the quality of your foremanship and not necessarily because you may never have heard of them before.

Foremanship in all industry must improve to keep pace with modern *scientific material improvements*.

Good foremanship develops from *initiative* and a sense of responsibility for *RESULTS*. Initiative is that quality in a foreman which causes him to investigate his every *responsibility*, large or small, in view of attaining better *RESULTS*.

Apply this thought to the attention to hazards in our "safety-consciousness" work, as well as to the scheduling of your mechanical work or of your efficiency in handling your men.

Much is said in modern industry about *training* by foremen. Many foremen in factories have the job of apprentice training, as well as job training. In our work here, job training is of more concern than apprentice training, but it is just as important as any factory job training from the standpoint of *RESULTS DESIRED*.

There is much concerning Safe practices and efficiency which you should be able to *TEACH* every man who works for you. Much teaching can be done by dropping the right word to the right man at the right time and by doing it OFTEN ENOUGH. If you are a foreman with an accident record, those accidents are some of your results. If you have few or no accidents, they, too, are your results.

Take the few seconds necessary to show the man you are teaching the *PRINCIPLES* involved and you will have less teaching to do. In a discussion of "How long is a new employee to be trained?" the parallel can be made to our school system—"How long do we train students?" The answer is obvious, when we consider that after every group of class grades there is another "commencement," and so it goes on and on, never ending.

A good foreman is a *LEARNER* as well as a *TEACHER*—bend over and listen to the other fellow sometimes. The foreman is always the *SPEARHEAD* of the *Safety instruction attack*. The Safety Engineer may give the new man—the Plant rules—the Departmental rules, but—the job rules are a teaching requirement and responsibility of the foreman *always*.

Job training and Safety training are to go hand in hand if there is to be real efficiency from any Foreman. Think this through to the cost of accidents under your supervision and what it could amount to.

In the question of *DISCIPLINE* for your men or for yourselves, consider that there is a great deal of difference between being *FAIR* and being *LIBERAL*. To be fair should be the goal of every supervisor and foreman; to be liberal is merely spending somebody else's money. Think this over, which are you actually, *FAIR OR LIBERAL?*

DUP 0912458

INFORMATION FOR FOREMEN (Cont'd)

A good foreman is and must be a good salesman, because he is required to sell his ideas to the men under him, as well as to the men above him. A good foreman needs to:

1. Attract favorable *ATTENTION* for his ideas, his orders and his instructions.
2. He must maintain *INTEREST* and favorable atmosphere about his job.
3. He must get *APPRECIATION* for the value of the work he and his men are doing.
4. He must acquire a genuine *DESIRE* for cooperation.
5. He must get the men's *DECISION to follow* instructions faithfully.
6. He must seek *SATISFACTION* FOR his men and FROM his men.
7. He must earn and maintain the *CONFIDENCE* of his men.

The Safety promotion part of your foremanship should be dominated by a certain amount of discreet showmanship. Always remember that when a man is properly instructed, whether it be for Safety or job performance, his fear of you or the task vanishes when enough knowledge concerning the job or the situation has been given to him. In other words, *FEAR goes out* when *KNOWLEDGE comes in*.

Always have your men understand the *SPIRIT*, as well as the *INTENT*, of the Safety orders and you are bound to get better results. This can be done by *voice tone, language,* and the *expressions*. Your sincerity counts most.

Be a modern, informed, group leader.

DUP 0912459

IMPORTANT GENERAL INFORMATION

Compensation	Liability compensation is paid for lost-time accidents, *not sickness.*
Sanitation	Use the toilets near your job, and keep your job clean.
Bicycles or Horses	To be used by those to whom they are *assigned*. Keep hands free of materials when riding.
Bulletins	Examine all bulletin boards. You may regret being misinformed or *uninformed.*
Cars (auto)	Drive slowly and carefully. Obey Plant rules. Don't speed!
Cameras	Are not allowed on the job, except by special permission of the management.
Field Letters	Every one important—don't neglect, read carefully, pass on quickly.
Horseplay	Subject to severe penalty on review by management.
Orderliness (Housekeeping)	The key to Safety—keep your job cleaned up as you work.
Materials, Harmful	See special field letters or house rules.
Medical	Report to your foreman for First Aid Instructions in case of all minor injuries; *no matter how slight.*
First Visit	Compulsory.
Redressings	As hospital or medical advisor directs or schedules.
Pedestrians	Walk on *left side of the road, please.* Stop, look and listen at crossings.

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IMPORTANT GENERAL INFORMATION (Cont'd)

Personal Injuries—Minor	A Minor Injury is an injury with which the injured may return to work immediately after First Aid. Ask your foreman to make out your injury report immediately upon return from First Aid. (Don't treat your own injuries—except water wash on caustic or acid exposure.)
Sub-Majors	A Sub-Major Injury is an injury requiring selected work without loss of appreciable time on the day of the injury.
Majors	**A Major Injury is a time-losing injury beyond the first day, and breaks the Safety Record.**
Quitting and Starting Times	Watch these very carefully.
Red Flags	On tracks, tailboards, and when trailing protruding materials on trucks or trailers, blasting signals, and for general warning.
Running	No running except extreme emergencies.
Safety Meetings	Are to be attended as scheduled; weekly! Check Safety Office for meeting material.
Smoking	Only in specifically designated areas or buildings.
Service by "Safety Department"	Ask us—we'll help you or find someone who can.
Equipment, Tools	**Inspection required at beginning of each shift and periodically according to schedules. Small tools daily before use; equipment monthly by checklist.**

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ALWAYS ASK—BE SURE

If at any time you are in doubt, do not hesitate to speak to the Area Engineer or the Safety Supervisor before proceeding on any job about which you are not sure of ALL of the
Safety requirements
or
possibilities

We are sincerely interested in the welfare of all employees, on the job as well as off the job. It is therefore our request that you *respect* the *human body* by defending it against
PERSONAL INJURIES

BE CAREFUL

KEEP THIS MANUAL
WHERE YOU CAN REACH FOR IT
AT ALL TIMES

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"If you are angry—Stop—It can kill you"

REMEMBER

If an employee loses any time because of a Plant injury — *he* breaks your Safety record.

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SPECIFIC REQUIREMENTS FOR FOREMEN

1. The status of foreman is a position to be respected.
(What you do, or fail to do, may detract from the respect that your foremanship deserves.)

2. It is your responsibility to get to know each man's ability, experience, know-how and aptitude as quickly as possible within a few hours or a few days.

3. You are expected to properly "job place" every man in every task every day as practically as possible.

4. Always take physical strength, youth, age, build and maturity into account.

5. Attitude may be good or poor, chronic or variable. Check each member of your crew frequently.

6. Always be in a position to prove that you are making maximum use of the *Procror* you selected to help you prevent accidents.

7. You should expand by your own initiative what is taught you in weekly foremen's training meetings.

8. Don't assume that the way you may have done things on the last Du Pont or outside job are necessarily good enough for this job.

9. You are expected to have a *suitable* plan *of your own* for handling new men.

10. *Don't leave new men or experienced men for one moment longer than is absolutely necessary during any part of any hour any day.*

"Check absenteeism again immediately upon the employee's return and get the *real* reason for his absence, not a general or hypothetical one. It could lead to an accident."

DUP 0912464