FROM E. J. MULLIGAN
POINT COMFORT OPERATIONS

TO MR. T. B. BONNEY
PITTSBURGH OFFICE

July 21, 1967

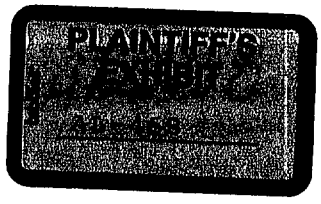
RE: SAFETY INDOCTRINATION FOR CONSTRUCTION EMPLOYEES

Enclosed is a copy of the regulations which are given to new construction employees and discussed with them at the time they start to work on the job. I forgot to give it to you the other day when we talked about it.

E. J. MULLIGAN

EJM:nsr

Enclosure - 1



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SAFETY INDOCTRINATION FOR CONSTRUCTION

We want to welcome you as Contractors' employees to our job site.

We want to take a few minutes to acquaint you with our safety rules and some of the conditions of our Operations which are probably unfamiliar to you. Even though you are not working directly for us, you must abide by our safety rules.

Everyone has a personal responsibility to look after his own safety. We want to help you do it.

All Contractors should hold Tool Box type safety meetings on a regular weekly basis.

I. Personal Protective Equipment

A. Safety hard hats are required at all times while on the plant site—in case of construction employees, plastic hard hats are required.

B. Safety glasses are required. Also, goggles must be worn when exposed to chemical splash, grinding, chipping, or breaking into pipe lines; goggles must be on person at all times.

C. Approved respirators will be provided to each employee by his employer and will be in the employee's possession at all times.

D. Emergency showers, eye wash fountains, and wool blankets are available at various locations. LEARN THESE LOCATIONS—they are marked by a GREEN LIGHT.

II. Plant-Wide Regulations (Must be followed wherever you are in the plant.)

A. Horseplay is not allowed. This is a place where men earn their living and we operate a business. Horseplay will positively not be tolerated.

B. No riding in vehicles with arms and/or legs outside body; no standing in vehicle or on running boards; and no riding on fenders or cab of vehicles. The speed limit is 15 MPH. There are some places in the plant where even slower speeds are necessary. All vehicles must stop at plant gates for inspection.

C. Housekeeping - All debris generated during each day must be collected for removal to the disposal area. Nails in boards must be bent down or removed.

Collecting points are worked out between the Contractor and the department. It is the Contractor's responsibility to take the debris to disposal area.

D. When working overhead, area beneath should be protected by signs or guard or should be roped off.

E. Guard area below when throwing things from above.

III. General Equipment and Material Considerations

A. No power driven equipment permanently installed in the plant is to be started or stopped unless the Contractor has been authorized to do so. In no case will any of the construction employees operate or attempt to operate danger tagged equipment (Show sample sign and explain why.).

B. No connections to plant services—gas, steam, water, air, or electrical—without prior arrangement with engineer, and then any connections will be made only after a permit has been issued and signed by the operating foreman.

C. On site, fire fighting equipment must be maintained in good condition and not blocked by equipment. Avoid fire hazards by storing combustibles carefully and cleaning up frequently. Special care must be exercised when welding or cutting operations are being performed. In case of fire or need of an ambulance, call Station 212. You will find this number marked on all plant telephones.

D. Do not locate construction buildings or equipment under overhead power lines.

E. Electrical - All portable electric tools must be equipped with a three-wire positive grounded power supply. Substantial insulation should be provided to protect employees from temporary or permanent wiring or apparatus. When working in areas of proximity to bare electrical conductors, arrangements for safeguarding must be made in advance with the Electrical Engineer before work can be started.

F. The use of explosives is prohibited unless specifically authorized in writing by the appropriate Works Manager.

G. Protective caps must be installed on <u>all</u> oxygen and acetylene bottles when not in use. While being used, they must be securely fastened.

IV. Specific Chlor-Alkali Rules and Procedures

A. No smoking, matches, or open fires shall be permitted except as established by engineer (hydrogen explosion danger).

B. No cutting or welding shall be done unless a permit has been issued by Chlor-Alkali Shift or Department Foreman or Alcoa's Engineer.

C. Confine yourselves to your one work area (explain why).

D. No eating, gum-chewing, or tobacco chewing is permitted in the cell building due to vapors.

E. Caution against wearing watches.

F. The wooden floors in the cell building were installed to reduce any likely shock hazard; but, since it often becomes wet (from normal cell flushing), non-conductive rubber-soled shoes or rubber pull-overs are required within the cell building. This applies to the operating cell room only.

G. Cell buildings (ground or operating floors) have the following rules:

1. Objects 24" or more must get approval of engineer or department foreman to take into cell building (explain).

2. Objects 4' or longer must receive same approval as above and then must have man at both ends (mag swing and electricity).

The above two items apply to operating cell rooms only.

V. Chlorine Precautions

A. Chlorine (throughout the department) is a toxic gas that is a respiratory irritant. Symptoms of extreme exposure are retching and vomiting, followed by difficult breathing.

B. Protection against chlorine

1. Respirators are to be carried by all personnel working in this area. These provide only short period protection and are intended to be used only for escape purposes. If chlorine in air causes coughing or sick feeling, immediately put on respirator and leave the area going cross-wind. Do not re-enter until the cause is corrected (explain why cross-wind).

2. Wind Direction: You will quickly learn to observe wind direction when coming on and during your work periods. If caught in a high contaminated area--use your respirator and always run cross-wind. There are three (3) wind indicators in the Chlor-Alkali Department--LEARN THEIR LOCATIONS.

VI. Warnings and Emergency Procedures

A. Warnings upon Chlorine Escape: Chlor-Alkali personnel are knowledgable of rescue procedure for anyone who may be caught in highly concentrated areas. This has priority over any operational consideration. However, our warning system should prevent anyone becoming trapped--if he knows the warning arrangements and heeds them. Upon any emergency, an announcement over the Public Address System will be made. "Emergency in (area)." Areas include the cell building, chlorine area, brine dechlorination, and dock. Upon hearing any such announcement, quickly leave the affected area if you are in it; if not in the immediately affected area, observe for possible coming danger in your area. In any event, be sure your area is upwind from that of the escapage.

B. In addition to the above verbal warning announcements, this department has an automatic warning buzzer system which is activated any time large concentrations of chlorine escape (such as in a power failure). This would normally preclude the verbal warning which serves to pinpoint the escape area. These two systems then both complement and supplement each other.

C. Action upon Noting Chlorine Gas Escape Victim

1. First of all, any such victim would likely be first discovered by operating personnel who are instructed to perform rescue duties prior to stopping any chlorine leak. However, construction personnel should be familiar with the following rescue procedure:

a. Carry victim to uncontaminated area.

IF BREATHING:

b. Place on back with head and back elevated, keep warm and allow him to rest in this position (purpose of wool blanket locations).

c. Call First Aid ambulance.

IF BREATHING HAS APPARENTLY CEASED:

d. Immediately administer artificial respiration.

e. Call First Aid ambulance as soon as possible if by yourself. If someone else is with you, send them.

D. Acids and Caustics

1. Remove soaked clothing.
2. Flush with water.
3. Go to First Aid.

E. Mercury

1. Wash hands and face thoroughly after exposure.
2. If spilled on clothing, remove from cuffs, pockets, before leaving cell building.

GENERAL SUMMATION: The Chlor-Alkali Department is as safe a place to work as we have at Point Comfort Operations. This is illustrated by the record of our regular operating employees. It is a safe place to work as long as the prescribed conditions are followed.