

SAFETY RULES



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Effective: January 2008



**Union Carbide Corporation
a subsidiary of
The Dow Chemical Company
Texas City Operations
Texas City, Texas**

TO REPORT AN EMERGENCY

**Dial 409-641-4444
or "4444"**

**Outside Locations --
Dial (409) 945-7411**

**FOR Emergency Services and Security Info:
Dial (409) 641-4429**



**INCLUDES SAFETY POLICY AND
EMERGENCY PROCEDURE**

“SAFE BEHAVIORS”

ALL EMPLOYEES

Texas City Operations – OSHA Free
 This will take your commitment and attention
ALL DAY, EVERYDAY

No Injuries

No Spills

No Exposures

No Permit Violations

IT'S ALL ABOUT YOU!

<p>ZERO TOLERANCE</p> <ul style="list-style-type: none"> - Everyone makes honest mistakes - We need to minimize - Brothers Keeper (Everyone on Site) - Unsafe Behaviors / poor attitudes <p style="text-align: center;">ARE NOT MISTAKES This Is Your Warning</p> <hr/> <ul style="list-style-type: none"> * Expect Support for everyone's/your safety * Expect Corrective action for unsafe behaviors * Expect Recognition for positive behaviors 	<p>Focus On Doing Things Right</p> <ul style="list-style-type: none"> - No Shortcuts - Take Your Time to do it Right / Safe - Get / Use the Right Tools for the Job - Get Help When Needed <hr/> <ul style="list-style-type: none"> * Expect Support
<p>Know Who To Contact For Help</p> <ul style="list-style-type: none"> • By Face and Name • Interventions • Stopping Work • Better Ideas <p><u>COMMUNICATE</u></p>	<p>All Questions Encourage /Ignorance Unacceptable</p> <ul style="list-style-type: none"> • If you are not Sure - Ask • Open Two way Communication Encouraged • “I didn’t know” will not be accepted <hr/> <ul style="list-style-type: none"> * Expect Help and Support
<p>Rules can be changed, But NOT Broken</p> <ul style="list-style-type: none"> • Know All Rules • Follow All Rules • You are encouraged to propose improvements • Follow All Rules until Changed <hr/> <ul style="list-style-type: none"> * Expect Leaders to listen to your ideas * Expect Feedback 	<p>Outstanding Housekeeping</p> <ul style="list-style-type: none"> • Minimize Hazards • Professional Environment • Good Place To Work <hr/> <ul style="list-style-type: none"> * Periodic Inspections
<p>Look out for Each Other</p> <p>Don’t leave a hazard for someone else to find – Identify or Correct</p> <ul style="list-style-type: none"> ✓ Eliminate ✓ Barricade ✓ Tape / Tie Wrap ✓ Tag <p>Stop Work if you are Uncomfortable Intervene with Respect or Get Help</p> <hr/> <ul style="list-style-type: none"> * Expect Respect 	<p>Know and Follow All Rules</p> <ul style="list-style-type: none"> • Ask Questions • Stop If Unsure • Know Where Information Is <hr/> <ul style="list-style-type: none"> * Expect Good Listening * Expect to get Answers

Union Carbide Corporation*
Texas City Operations

Safety Policy

*At Texas City Operations, protecting people and the environment will be part of everything we do and every decision we make. Each employee has a responsibility in ensuring that our products and operations meet applicable government or Dow** standards, whichever is more stringent.*

Our goal is to eliminate all injuries, prevent adverse environmental and health impacts, reduce wastes and emissions and promote resource conservation at every stage of the life cycle of our products. We will report our progress and be responsive to the public.

Safe work behavior is a basic requirement of every individual working within Texas City Operations (TCO). This responsibility is best summarized by:

DO IT SAFELY
OR
DON'T DO IT!

*A wholly-owned subsidiary of The Dow Chemical Company.

**"Dow" refers to The Dow Chemical Company and its consolidated subsidiaries.

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INTRODUCTION

This safety book contains the minimum safety rules and procedures for performance of work by all TCO employees, suppliers, visitors, and contractors. Subsequent to publication, should any rule or procedure set forth herein differ from applicable federal, state, or local laws, the more stringent will apply. These rules and procedures have been developed to enable us to attain an injury-free workplace.

These rules and procedures represent the foundation for safety in Texas City Operations and are an integral part of every job. Application of these rules along with sound professional judgment will help protect personnel from the hazards that exist.

This Safety Rule Book is **effective until superseded**. An electronic copy of the rule book can be found on TCO EH&S ODMS web and the Contractor Safety Council of Texas City (www.csctc.org). The EH&S department contact can guide anyone to the network file location.

Compliance with these rules and procedures is a condition of working at Texas City Operations.

DEFINITIONS

Term	Definition
Barricade	A device to prevent or limit access to an area where a temporary hazard exists or to warn personnel of a temporary hazard in an area. The term guard also falls under this definition.
Caution Tag	A tag used to identify equipment having special short-term requirements, identifying why a barricade or warning tape is being used.
Compressed Gas	Substance which, when enclosed in a container: <ul style="list-style-type: none">- has a pressure of either 40 psig at 70°F, or exceeding 104 psig at 130°F; or- a vapor pressure of 40 psig at 100°F for flammable liquids.
Designated Parking Areas	Parking areas designated by the owning department head and identified by signs, yellow guard rails, yellow stripes, or yellow cement bumpers.
Elevated Work	<ul style="list-style-type: none">• Any work where personnel are working within 6 feet (1.8 meters) of a drop of 6 feet (1.8 meters) or more as measured from the lowest part of the body. For example:<ul style="list-style-type: none">○ Work within 6 feet (1.8 meters) of the edge of a flat roof○ Work done on pipe racks○ Work around excavations deeper than 6 feet (1.8 meters)○ Work on transportation equipment (tank trucks, rail cars, etc)• Work within 15 feet (4.5 meters) of the edge a low-sloped roof.• Work on steep roofs (slope greater than 4 in 12, vertical to horizontal).• Work Over dangerous equipment and other hazards regardless of height. For example, work done over exposed reinforcing bars.• Work that creates a fall hazard by:<ul style="list-style-type: none">○ Removing grating or permanently installed fall prevention/protection (e.g., guardrails), or○ Creating an opening through which a person may fall• The use of ladders with more than 4 steps.
Impaired Condition	Abnormal behavior exhibited by observable deficiencies in motor, sensory or judgmental abilities. The deficiency may be caused by the effects of alcohol, drugs or medical/emotional conditions.
Industrial Vehicles	Cranes, fork trucks, yard runners, and manlifts.
Life Critical Guard	A <i>temporary</i> guard that forms the last line of defense to prevent persons from falling to a lower level, when such falls would be generally accepted as life-threatening. Examples include, but are not limited to...

- Guardrail systems as defined in the Global Elevated Work Standard
- Covers over open holes in grating
- Warning line systems and barricade tape when no guardrail systems or covers have been installed.

MOC
Openings in
Floors, Platforms,
Walkways or Wall
Openings
Warning Tape

Management of Change
Any temporary floor, platform or walkway opening created by the removal of grating or handrails.
(Life Critical Guard Management System requirements will apply)

A brightly colored fabric or plastic tape strung-out around an area of high risk to personnel such as hazardous walking surfaces, an overhead line leak, etc.

TEXAS CITY OPERATIONS SAFETY RULES

A. RESPONSIBILITY FOR SAFETY

1. Compliance with Standards and Rules

Employees must comply with company safety standards, site safety rules, and department safety policies or procedures in which they are working.

All warning signs must be followed.

2. Individual Actions

Safety is the individual responsibility of each person entering the site and shall be given priority consideration before engaging in any activity.

Every employee is responsible for his/her own safety and the safety of others affected by his/her actions.

Each person is required to act in a safe manner at all times and report any unsafe conditions to his/her supervisor or host.

All personnel are expected to act with responsibility and with accountability for one's own actions. Do not engage in horseplay.

3. Personal Clothing

a. Where protective work clothes are not required, each employee is expected to wear personal clothing that is safe and proper for the job. Employees other than office employees shall wear a minimum of a shirt with sleeves and long trousers while on the job. Clothing is free of loose hanging/ragged ends. Clothing worn in the manufacturing areas must cover the shoulders, trunk and legs. Open weave mesh garments are not allowed.

Shorts may be worn to change room/area when traveling to or from their normal workplace at the beginning or end of the work schedule but in no case may be worn through process areas. This does not include work breaks (i.e., lunch) during the work day.

b. Loose clothing or jewelry must not be worn around machinery or moving equipment. Long hair is tied-up or covered when working on or near rotating equipment.

4. Contact Lenses

Contact lenses may be worn unless otherwise stated by the Plant/Functional Leader.

5. Wearing of Rings

- a. Rings may not be worn while in plant process areas, laboratories or in other locations while engaging in activities related to process operation, laboratory analysis, maintenance, construction, trucking operations or food service.
- b. Visitors or transient employees who will only be observing and not performing work tasks are exempted from this rule unless a ladder is to be climbed.

6. Safety Operations

Personnel working in a particular department or plant will be provided a documented safety orientation specific to that department. The orientation will include department rules, emergency procedures, hazards, chemicals, protective equipment, etc., but may omit material already covered in the New Employee Orientation Program or Contractor Safety Council Training.

7. Visitors, Contractor visitors, and Non-TCO Employees

- a. A TCO employee must escort and be responsible for the safety of his/her visitor(s), including Non-TCO company employees while inside TCO secured property.
- b. Non-TCO employees who have not attended TCO Site Specific training, presented by the Contractor Safety Council, must be escorted by an authorized person while inside TCO secured property.

8. Weapons / Ammunition, Smoking, Alcohol / Drugs

Weapons/ammunition, alcoholic beverages, and illegal drugs or paraphernalia are not allowed in the plant with the following exceptions:

- Weapons and ammunition are permitted in the plant by state, local, or federal law enforcement officers on official business.

Smoking on TCO property is prohibited. TCO property includes parking lots and extends to the street boundaries of the site. Violators are subject to immediate discharge. (Reference Dow Global Policy)

9. Identification

Persons entering the plant must wear an identification badge in sight. Any exceptions must have prior approval from E S&S (x. 4429).

10. Voiding Safety Devices

Safety devices must not be made inoperative without meeting the requirements of the owning department's Management of Change procedure. (refer to the Safety Systems Impairment standard and other plant policies)

11. Electronic Devices

Production or Functional leader’s approval is required for the use of electronic equipment such as cameras, audio tape recorders, radios, televisions, etc. ES&S approval for the specific camera is required. The camera capability of cell phones and PDA’s *is not allowed to be used under any circumstances* while on site.

Only intrinsically safe (for Hazardous Locations) electronic devices such as cell phones, pagers, PDA’s may be used when inside classified areas. *Spark-producing devices (such as non-intrinsically safe cell phones, PDA’s, pagers, etc.) require a “Safe Work Permit” if they are used in process areas (must be turned off if brought into process area without SWP).*

Note: The pagers distributed by TCO are intrinsically safe and have the following statement on the back:

RAD DEV FOR HAZ LOC (DIV2: I, ABCD; II, FG)

12. Material Handling

When manually moving materials, use proper lifting methods and get help when necessary. A STAC may be required (see TCO contact).

B. VEHICLES AND TRAFFIC SAFETY

1. Traffic Rules (ref. Dow Global Standard Operation of Motor Vehicles)

- a. The maximum speed limit in the plant is 18.5 MPH unless otherwise posted.
- b. Texas Department of Public Safety traffic rules prevails for operations of all vehicles.
- c. Motor vehicles must be maintained in a safe working condition at all times.
- d. Drivers must possess a valid driver's license for the type of vehicle driven.
- e. Drivers must obey all traffic signs and rules in the plant.
- f. Drivers must follow the instructions of emergency response personnel.
- g. Drivers shall not drive a vehicle and use a cell phone or radio communication device while the wheels of the vehicle are in motion (this also applies to hand’s free sets while on-site). ES&S may use authorized communication devices when safe operation of the vehicle can be maintained.
- h. Must wear seat belts when vehicle is in motion.

2. Bicycles

Do not carry riders on bicycles. Do not make alterations to bicycles.

Rider is responsible to ensure bicycle is in good repair prior to each use. Reflectors are required for all bicycles at TCO.

When riding a bicycle in the plant, both hands must be free to steer. For example, carry tools and equipment in baskets, slings or packs.

3. Open Topped Personal Vehicles

Motorcycles may be used to get to and from the work place. They cannot be used for meetings within the site. Motorcycles must be ridden by one person who must wear an approved motorcycle helmet and eye protection.

Other open topped personal vehicles are not allowed in the site.

4. Pedestrian Crosswalks

Vehicles shall yield to pedestrians in designated crosswalks. Pedestrians must check for oncoming traffic before entering a crosswalk.

5. Railroad Crossings

a. Drivers must use caution when approaching railroad crossings and must yield the right-of-way to all rail traffic.

b. Drivers must stop before crossing railroad tracks when red crossing lights are flashing or stop sign is posted. Drivers must follow Flagmen's instructions.

6. Vehicle Accidents

All motor vehicle accidents occurring on TCO property must be reported to ES&S (phone 409-641-4429 or 4409) and appropriate TCO Contact immediately. (Ref. MVA reporting process) ES&S will complete the written MVA report.

7. Parking

a. Vehicles must not be parked in locations, which block plant roadways, access roads, delivery spots, or fire lanes. Must leave keys in vehicle if not parked in designated parking area.

b. Vehicles may not be parked under piperacks unless following emergency procedures or if in designated parking area.

c. Notify ES&S ext. 4429 or 4409 prior to blocking any plant road.

d. Do not park within 8 ½ feet of rail track centerline.

8. Unattended Vehicles

Vehicles with the ignition switch turned on shall be attended by the operator seated in the driver's seat. "Unattended" means that the driver has left the normal control position of the vehicle.

Note: This requirement does not apply to emergency vehicles under direction of the Emergency Director, nor to vehicles that must run in order to perform designated tasks (such as the operation of vacuum trucks, concrete trucks, etc.) if brakes are set, nor to tractor trailers if brakes are set when driver exits.

9. Passengers in Trucks / Vehicles

- a. Personnel cannot be transported in the bed of pickup trucks unless appropriate restraints are in place. Appropriate restraints are physical devices and work practices and other methods used to protect occupants when riding in the back of trucks. Restraints protect occupants from shifting cargo and from being thrown from or falling off from the truck. The physical restraint system will include an adequate seat with back support, which is securely anchored to the vehicle, and a means to secure cargo. Vehicles used to transport people shall have seats for the number of people to be carried.
- b. Vehicle seat belts, if equipped, must be worn at all times when driving in the plant.
- c. Vehicle operators must ensure occupants are wearing seat belts before putting the vehicle in motion.

10. Vehicle Capacity

When transporting material or personnel, the total load shall not exceed the capacity of the vehicle.

11. Vehicles – Maintenance and Towing (ref. TCO Vehicle Access)

- a. Vehicles can only be pulled or carried by a vehicle wrecker or an appropriate towing device (tow bar, trailer, dolly, etc.).
- b. In the event that a wrecker must be called, prior permission must be received from ES&S before it will be allowed to enter the plant.
- c. Maintenance on your personal vehicle while in the plant is not allowed. The only exception to this rule is tire changing. The Emergency Services & Security Delivery Specialist on duty must be notified and Safety Task Analysis Card (STAC) must be written prior to beginning. If your car needs to be jump started, contact the Emergency Services & Security Delivery Specialist and/or the Guard at Gate 18, to provide that service for you. For liability reasons, any other maintenance to your personal vehicle must be done off TCO property.

12. Trailer / Transporting Materials

- a. Trailer hitches and other towing equipment shall be utilized according to the manufacturer's recommendations and not altered

in any way. Safety chains / secondary restraint system are required.

- b. When transporting material on trailers, the load must be distributed evenly and secured to prevent shifting.
- c. Flaggers shall be used to assist drivers when backing up trailers in process areas or around congested areas.

13. Flagman

A flagman shall be provided whenever a work crew or equipment in operation partially blocks a plant road and proper barricading is not utilized or whenever the operation of the equipment could present a hazard to personnel or property. (Ensure notification to ES&S)

14. Requesting Heavy, High, or Wide Loads equipment entrance or total road closure at TCO (ES&S policy)

All loads with the following criteria must have ES&S approval (work through TCO contact).

- Greater than or equal to 65 tons
- Multiple support vehicles (>1)
- Width > 11 Feet
- Height > 13 Feet

15. Moving Mobile and Heavy Loads (ref. SWP standard, Mobile Hoisting Equipment, and Electrical Safe Work Practices EWP 9, TCO Equipment Escort and Flagging Procedure)

- a. An escort and/or flagman is required for the following:
 - Escorting cranes and/or large loads from one location to another
 - Flagging traffic for tractor/trailers while they back into loading zones
 - Flagging traffic around equipment parked in the road
- b. Vehicles more than 10' wide or 13' high must be escorted on plant roads
- c. When moving fixed boom cranes on TCO roads, a flagman shall be provided to clear traffic at intersections.
- d. When moving retractable boom cranes on TCO roads, the boom shall be fully retracted.
- e. The following rules pertain to all mobile cranes, "cherry pickers" and other load carrying vehicles:
 - The tip of all booms and jibs shall have high visibility markings.

- When moving a load in a congested area or where load swinging would present a hazard to personnel or property, a flagman shall be provided and swinging of loads shall be controlled by a tag line.
- Keep appropriate distances from Electrical lines (flagman may be required)

16. Overhanging Material

Hauled material that overhangs the sides of trucks, trailers, or "cherry pickers" more than 1 foot must be flagged. Material extending more than 3 feet from the front or 4 feet beyond the rear shall be flagged. Limited "pick and carry" ability on site roads. See your TCO contact. (Roads within dept/plant limits not included.)

17. Industrial Vehicles

Operators of powered industrial vehicles (such as cranes, fork trucks, tractors, front-end loaders, stackers, and power sweepers) must be trained and tested. (ref. TCO Powered Industrial Truck standard)

Industrial vehicle operators must receive routine medical evaluations.

Safe operating requirements, including limitation of equipment and controlled areas, must be written.

The vehicle operator must inspect vehicles prior to use each day and include a walk behind the vehicle prior to moving. The vehicle must be serviced routinely, and documentation of inspection and service maintained.

C. PERSONAL PROTECTIVE CLOTHING AND EQUIPMENT

(ref. TCO plants and maintenance work groups have specific PPE Programs)

1. General Requirements

- a. Personnel must wear protective clothing and equipment as required in the department or area that they enter. In general, hard hat, safety glasses with side shields, with chemical goggles on person (worn as required by signs, permit, etc.), and appropriate shoes must be worn in chemical process manufacturing areas.
- b. Hard Hat and Safety glasses with side shields or coverall goggles must be worn in the site *except for areas clearly marked by signs and the areas shown below (unless there is work underway which requires eye protection/hard hat):*

- Traveling within the office areas north of Avenue A (between Gates 1 and Bldg. 585/Walking Track) and the north door of Buildings 5 and 62.
 - In Maintenance Shops, or in the mall area between Buildings 62, 78, 5 and 6.
 - In Buildings 281, 63 Warehouse and parking areas, Building 63 yard, and 2448.
 - As directed by the Emergency Director during an emergency drill or a plant emergency.
- c. Unless required for work being done, protective clothing and equipment is not mandatory while in an office, control room, lunch room, change room, or walking main roadways when traveling to or from their normal workplace at the beginning or end of the work schedule. This does not include work breaks (i.e., lunch) during the work day.
- d. Eye protection or hard hats are not required inside vehicles that are fully enclosed.
- e. All personal protective equipment shall meet the appropriate American National Standards Institute (ANSI) or the National Institute for Occupational Safety and Health (NIOSH) Standard.
- f. TCO employees purchase approved PPE from the TCO section of EMart only (TCO approved PPE list located and maintained). Employee PPE must be approved for use by EHS Delivery.
- g. Equipment components (such as hard hat suspensions and hard hat shells) must be of the same model and manufacturer
- h. Personal protective clothing and equipment must be worn and stored per manufacturer's instructions, must fit properly, and shall not be misused or altered in such a way that their original protective features are rendered less effective.
- i. Personal protective equipment is visually inspected prior to use by the user to ensure equipment is not damaged, worn, or defective.
- j. It is the host's responsibility to ensure visitors have been informed and follow requirements.
- k. Contaminated PPE is disposed of according to department environmental procedures (hazardous/non-hazardous waste).
- l. The TCO [Maintenance PPE Grid](#) contains personal protective equipment relative to maintenance, service, and construction tasks (i.e. welding) and use of tools (i.e. jackhammers).
- m. Electrical PPE requirements and specifications are also documented in the TCO Electrical Safe Work Practices.

- n. Flame Retardant Clothing is required in process areas as required by the specific plant **and** when doing FRC designated tasks such as: (ref. TCO FRC policy)
 - Initial opening of process equipment
 - Response to fixed gas detector alarms
 - Any work requiring a hot work permit
 - Work on electrical switch gear
 - Welding or cutting with a torch
 - Dispensing or handling of flammable liquids (excluding the gasoline pumps)

2. Foot Protection

- a. Protective footwear must be worn in areas where there is danger of foot injuries due to falling or rolling objects, objects piercing the sole or electrical hazard.
- b. Canvas, cloth or open-toed shoes must not be worn in any non-office environment. All persons who have field duties must wear completely enclosed shoes with flexible, skid-resistant soles (safety shoes may be required).
- c. Do not wear ventilated shoes or shoes made of high-absorbency, light-weight material such as nylon or canvas in manufacturing areas.
- d. Shoes with metal taps or nails on the soles should not be worn in manufacturing areas.

3. Eye Protection

- a. Approved safety glasses with side-shields must be worn as minimum eye protection when in a non-office environment.
- b. Chemical goggles must be worn in designated areas. The headband on chemical goggles should be worn around one's head, not around the hard hat. One should also look down while removing goggles. Goggles must be on your person while in process areas.
- c. Safety glasses, chemical goggles or contact lenses with dark tint lenses should not be worn at night or in indoor locations during the day unless wearing protective eyewear for gas or electrical cutting or welding, or unless there is a prescribed medical requirement for the dark tint lenses.
- d. A face shield, in addition to either side-shield safety glasses or chemical goggles, is required when using or observing use of grinders, buffers, concrete/masonry saws, pneumatic chisels,

needle guns, jackhammers, struck by tools (e.g. chisels, wedges, drift pins, hammer wrenches and beater bars) or if the job involves flying debris. Face shields are required when drilling and/or cutting at or above eye level. Care should be taken to avoid having face or eyes at risk while performing work utilizing these type tools.

- e. Side-shield safety glasses are required under a welding hood while arc welding.
- f. Welding goggles shall be used for all gas welding or cutting, and welding hoods shall be used for all electric welding and cutting.

4. Head Protection

- a. Hard hats must be worn when in a non-office environment (control room, lunch room, meeting room, etc.) areas, unless clearly marked by sign. The Plant/Functional Leader will specify the required head protection in all other department locations.
- b. Bump caps, designer hats, and metal hard hats are not permitted. Hard hats must be non-conductive. Red hard hats are reserved by fire and rescue personnel.
- c. Safety hard hats whose structural integrity has been altered by cracks, holes or contact with organic solvents shall not be used. Intentional painting of hard hats is not permitted. Stickers which may conduct electricity are not allowed.
- d. Wearing of a welding hood does not preclude the use of a hard hat. The wearing of a hard hat under a welding hood is dependent on the nature of the job, and its requirement will be defined by the SWP issuer or employee's supervisor whichever is more stringent.

5. Respiratory Protection

Personnel required by their job to wear full-face respirators, fresh-air masks, Self-Contained Breathing Apparatus (SCBA) or other such protective equipment shall be clean shaven where the mask seal surface contacts the face. These personnel shall be trained, fit tested and medically approved to wear such equipment.

6. Hearing Protection

Wear hearing protection as designated by signs, SWP or procedures (including maintenance and unit PPE grids).

7. Hand Protection

Gloves must be worn as needed to protect against hazards such as skin absorption, severe cuts or lacerations, severe abrasions, punctures, chemical burns and harmful temperature extremes.

Glove selection should be based on consideration of the chemical permeation characteristics and the need for dexterity, cut and abrasion resistance, thermal protection and wearing life.

The type of glove to be used for chemical burn protection will be specified in department procedures.

Wear gloves as required (appropriate for the hazard). SWP, PPE grid or procedure may specify.

8. Fall Protection (ref. Elevated Work standard)

1. Any job involving elevated work must be planned to ensure personnel doing the work are protected from falls and falling objects. A job aid for determining what documents are required for planning the job is available.
2. No personnel are allowed to perform elevated work unless they:
 - a. Have the required training.
 - b. Are protected from falls at all times(*). They may be protected via:
 - Fall prevention systems such guardrails, hole covers, etc, or
 - Fall restraint systems, or
 - Fall arrest systems
3. People who are potentially exposed to falling objects must be adequately protected (e.g., by wearing hard hats or by using material nets).
4. If any work creates a fall hazard (e.g., removal of grating), the personnel doing the work must protect other personnel by:
 - a. Installing temporary guardrails(**), or
 - b. Installing hole covers(**), or
 - c. Preventing other personnel from accessing to the area.
5. Equipment used for fall prevention or protection or elevated work must:
 - Meet Dow specifications or local governmental requirements, whichever is more stringent.
 - Be used in accordance to the manufacturer's instructions.
6. Some non-routine jobs pose higher risks. For these jobs, additional planning requirements apply.
 - a. Fill in a fall prevention/protection plans for any of the following jobs
 - a) Critical Scaffold erection and dismantling:
 - Cantilevered Scaffold
 - Suspended platforms
 - Scaffold tents
 - Balconies exceeding 3 feet (1 meter)

- Scaffold that uses an existing building or structure for support/anchorage and the distance between the edge of the scaffold and the existing building or structure is >1 foot (30 cm)
- Scaffold bridges longer than 25 feet (7.5 meters)
- b) Non-routine use of aerial lift devices
- c) Use of crane-suspended work platforms.
- d) Work on elevated surfaces (e.g., cable trays) that are not protected by permanently installed fall prevention/protection systems.
- e) Work that creates a life-critical fall hazard (e.g., by removing grating, removing manhole covers, etc.)
- b. Use a checklist to document the fall prevention plan (a template is available).
- c. Get the plan approved by Facility/Work Group Leadership. To record approval both you and the Leadership representative must sign and date the plan.
- d. Review the plan with the personnel who are doing the job. Have them sign the plan, to indicate they have reviewed the plan and understand it.
- e. Ensure that the controls are put in place before work begins.
- f. Ensure that the requirements for Personnel Planning Elevated Work are implemented.

D. TREATMENT OF INJURIES OR ILLNESSES

(ref. Site Injury / Illness Reporting Policy)

1. Get Prompt Treatment

- a. All injuries or illnesses must receive prompt approved medical attention; this includes emergencies (mandatory ambulance calls) and non-emergencies (such as sprains, first aids, or body fluid loss).
- b. Turn in Fire Alarm or dial ext. “4444” (409-641-4444) immediately.
- c. **All** injuries or illnesses must be promptly reported to the injured employee’s supervisor and to the TCO Contact of the area or unit in which the incident occurred (i.e. contact the WAC/Permit Issuer if in maintenance facility or Operations/Permit Issuer in a process unit).

2. Late Developing Injury or Illness

- a. Any late developing (or aggravated) injury or illness must receive prompt approved medical attention as soon as the conditions or symptoms are recognized.
- b. Late developing injuries or illnesses must be reported to the TCO Contact of the area or unit in which the incident occurred.

3. Ambulance Call (turn in Fire Alarm or dial “4444”)

An ambulance must be called for:

- a. Foreign material in the eye.
- b. A person suffering from chest pain.
- c. Exposure to toxic or corrosive material.
- d. Any loss of consciousness.
- e. A person in obvious/serious distress.

4. Non-Emergency Response

- a. Any TCO employee: Call 4444 to notify the *ES&S DELIVERY SPECIALIST*, and direct the injured to *Health Services*
- b. A Contractor would notify his/her supervisor to arrange for medical treatment. The Contractor supervisor must then call 4444 to notify the *ES&S DELIVERY SPECIALIST* (in order to meet ES&S personnel at Health Services prior to leaving the site) AND inform the Permit Issuer or area contact.

5. Eye Irrigation Procedure

If foreign material gets in one’s eye, the eye must be washed immediately with potable water, preferably at an eyewash station. The ambulance must be called, and washing must continue until the emergency response personnel arrive and for a minimum of 15 minutes.

6. Chemical Exposure to Skin

- a. All chemical spills or splashes must be washed from the body immediately using safety showers or eye wash fountains for a minimum of 15 minutes and promptly reported to supervision. All clothing, footwear and jewelry shall be removed from the affected parts of the body. The individual must receive prompt approved medical attention. (Exposure to toxic or corrosive chemicals requires mandatory ambulance call.)
- b. All chemical exposures and all eye injuries must be reported to Health Services and the supervisor or host immediately.
- c. Supervision must be consulted before reuse of clothing, shoes, watch bands or other items of apparel that have been contaminated with chemicals.

7. Fitness for Duty (ref. TCO case management Process Overview and Injury/Illness Notification form)

- a. For occupational injury / illness, TCO and contractor personnel must report through Health Services before returning to work.

- b. The employer is responsible to ensure employee is Fit for Duty / evaluated for additional treatment prior to employee return to work.
- c. Personal injuries, illnesses or medical treatments that may be aggravated by the type of work performed on the job must be reported to the employee's supervisor.
- d. Depending on the nature of a personal injury, illness or medical treatment, an employee shall review his/her restrictions with the supervisor before returning to work.

E. MISCELLANEOUS WORK REQUIREMENTS

1. Work Authorization

Work Authorization - Enter operating areas only when authorized:

- a. All work requires authorization from plant personnel.
- b. Most work requires a properly completed Safe Work Permit and Safety Task Analysis Card (STAC).
- c. Upon entering a process area or department, personnel not permanently assigned to the area must sign in and out on a Sign In sheet. (Ref. Plant accountability policy)
- d. Plant and maintenance areas have additional sign-in requirements such as a "Guest in the House" policy.
- e. Personnel must also verbally notify Operations personnel (or equivalent responsible party) prior to beginning work in the area.

2. Piping Specifications

Maintenance and construction shall be done in accordance with the appropriate technology piping and equipment specifications (material of construction, etc.). Deviations from written specifications require compliance with the owner department Management of Change procedure. (refer to the appropriate safety standard)

3. Isolation of Energy Sources (Red Tag)

- a. The complete requirements for Red Tag are in the Global Isolation of Energy Source Standard.
- b. All personnel must receive annual training in the Red Tag safety standard.
- c. Violations of Red Tag Safety Standard shall result in disciplinary action.

4. Safe Work Permits

- a. The complete requirements for Safe Work Permits are in the Global Safe Work Permitting standard with additional plant requirements documenting in each work group policy.
- A Safe Work Permit is mandatory for:
 1. Confined Space Entry
 2. Hot Tap
 3. Positioning and operation of lift equipment near un-insulated, weather proofed or bare power lines (refer to EWP-13 in global electrical safe work std)
 4. SW-1 switching (Potentially Hazardous Switching, refer to EWP-20 in global electrical safe work std)
 5. Class A-1 energized electrical work (refer to EWP-30 in global electrical safe work std)
 6. Erecting, modifying or removing temporary life-critical guards used for fall prevention (refer to global elevated work std)
 7. Hot Work (where flammable or combustible material may be present),
 8. Hydroblasting/Pressure Washing
 9. Excavation work,
 10. Abrasive Blasting
 11. Radiography,
 12. Work on Exchangers with Exposed Tube Plugs
 13. Work that requires the use of explosive devices (for example: Hilti gun)
 14. Critical Lifts (ref. TCO Mobile Hoisting Equipment standard - A lift that meets any of the following conditions):
 - The load exceeds 75% of the rated crane capacity for steel erection or 80% of the rated crane capacity for all other lifts.
 - The combination of the weight of the lift exceeds 50% of the rated capacity of the equipment being used and the lift is made over power lines or process equipment (includes main piperacks).
 - Two or more booms are used for the same lift.
 - Poles or derricks have been erected.
 - The crane would be traveling with the load that poses a hazard or that exceeds 50% of the crane's load chart under lifting conditions.
 - Whenever personnel are being hoisted. (The total weight of the loaded personnel platform and related rigging shall not exceed 50 percent of the rated capacity for the radius and configuration of the crane or derrick).

- When using adjustable devices (examples: chain hoists, come alongs, turn buckles) attached below the hook.
- When using an adjustable device (examples: chain hoists, come alongs, turn buckles) to transfer a load from the crane hook.

15. Jobs required by department policy, or

16. Jobs when requested by the personnel doing the work.

5. Safety Shower/Eye Bath Testing and Location

Emergency equipment (including safety showers, eye baths, fire extinguishers, and emergency respiratory equipment) must be regularly inspected to ensure equipment is in place, unobstructed, and functional.

Personnel must determine where the nearest Safety Shower and Eye Bath facilities are located before commencing work. [Testing of the nearest safety shower or eye bath shall occur before commencing work requiring SWP.]

6. Cleaning with Compressed Air

Compressed air shall not be used to clean clothing or skin.

Do not direct compressed air toward the head, or toward other personnel.

If air is used for cleaning work areas, etc., the pressure must be controlled at 30 psi or less and equipped with a chip guard nozzle that meets OSHA requirements.

7. Dropping/Throwing Tools

Tools, materials, or equipment shall not be dropped or thrown from one level to another.

8. Barricades and Guards

Barricades (Barricades and/or guards are placed where necessary to warn against hazardous conditions or activities).

a. Temporary Life Critical Guards

If any work creates a hazard that can cause someone to fall to a lower level (e.g., removal of grating), the personnel doing the work must ensure other personnel are protected by barricades or guards. These barricades or guards will be considered “life-critical guards” and must be documented and tracked by the owning plant/work group. Continuous attendance is acceptable when the watch person can prevent entry into the fall hazard area from all possible accessible sides.

b. Barricades must also be erected when otherwise causing a potentially hazardous condition.

Ex. Excavations and wall openings must be guarded by a barricade when unattended.

- c. A warning tag must be placed on all sides of a barricaded hazard. The tag must be completely filled out, including a description of the hazard. Life Critical Guards have a specific tag that must be used.

9. Warning Tape

Warning Tape is used to call attention to a hazard but offer no physical protection.

- a. Red and black “Danger” warning tape will identify imminent danger areas. These areas may be entered only by authorized personnel (such as personnel working to eliminate the problem).
- b. White warning tape will identify areas that contain asbestos hazards and may not be entered without the use of approved personal protective equipment.
- c. Magenta and yellow warning tape will identify areas that contain radiation hazards may be entered only by authorized personnel.
- d. Yellow and black “Caution” warning tape will identify non-imminent danger hazards. These areas may be entered after recognizing the hazard and proceeding with caution.

10. Caution tags:

- a. A tag must be used to communicate information when barricades or warning tape are necessary.
- b. Caution Tags are used for those situations where accidental operation may result in an undesired situation or to control/communicate special instruction on equipment.
- c. All applicable sections of the Caution Tag are completed so that the reason for caution is clearly understood by all affected personnel. A periodic review of posted Caution Tags should be performed to allow for update of the caution

11. Walking on Pipe

Walking on elevated pipelines requires continuous fall protection. (refer Elevated Work standard)

12. Walking on Cable Trays (refer Elevated Work standard)

Walking, crawling, or stepping on cable trays is prohibited unless a Cable Tray Access Checklist (approval/authorization) is issued with an SWP.

13. Walking on Roofing

Walking on or otherwise putting one's body weight on a roof may require a SWP; see your TCO contact.

14. Restricted Areas

Do not enter electrical substations or other areas marked as restricted or regulated without obtaining Operations' authorization.

15. Flammable Material Storage and Transfer

Flammable materials including solvents, degreasers and aerosols must be kept in UL approved safety containers or fire resistant storage cabinets unless storage is in a laboratory, warehouse, or other special occupancy.

Equipment must be electrically grounded and bonded with standard grounding cables when transferring flammable materials from a drum or container to another container. (This requirement usually does not apply to small analytic laboratory transfers.)

16. Cleaning Material Disposal

Flammable materials or chemicals for cleaning – including, but not limited to solvents, gasoline, oil, and hydraulic fluid – used by maintenance, construction or service groups shall be disposed of using the dept/plant waste disposal plan.

17. Crane Safe Work Practices (ref. TCO Mobile Hoisting Equipment & Rigging Standard)

Do not "ride" crane hooks. Stay clear of crane lifts. Do not stand or walk under suspended loads.

F. HOUSEKEEPING

1. General Requirement

Materials or equipment must not be stacked or stored in locations that prevent access to fire protection systems or their controls.

Each area/plant at TCO has documented housekeeping standards. In addition, SWP and STAC requirements also include maintaining housekeeping standards throughout the job.

G. MACHINERY AND TOOLS

1. General Requirement

Tools shall be used as their design was intended and shall not be modified.

2. Defective Tools and Equipment

Defective tools and equipment shall be removed from service for repair or disposed of immediately. Tools and equipment that are to be repaired must have a "Warning" tag attached stating the nature of the defect(s).

3. Guards on Moving Parts

Machinery, tools (including portable grinders and buffers), and equipment with exposed gears, belts, power transmission couplings, etc. shall not be operated without effective guards.

Red Tag may be required if removing a guard or working in the area normally protected by a guard prior to making adjustments or repairs. (ref. Global Isolation of Energy Sources – TCO additions)

4. Refuel of Equipment

- a. Vehicles or equipment with gasoline engines shall not be refueled with its engine running or while it is near any predictable source of ignition, such as welding operations.
- b. Fuel tanks on equipment powered by diesel engines shall not be filled with the engine running if during the process it is possible to spill fuel on a hot engine or manifold.
- c. Portable fuel containers must not be filled in the bed of pickup trucks or inside vehicles.

5. Knives (ref. Texas City Cut Injury Prevention Policy)

- a. The use of open blade knives (personal property or company-provided) is prohibited on site at Texas City Operations.
- b. Slash resistant gloves are required by anyone using a cutting device.

6. Portable Powered Tools

- a. Manually held pneumatic, electric powered or hydraulic powered tools shall not be locked or held mechanically in the "on" position.
- b. All portable electric tools or equipment (including extension cords) shall be inspected prior to use for potential shock hazards and according to their required inspection schedules. Portable tools or equipment that are past due on their scheduled inspection shall not be used until the inspection requirements are met. (refer to the appropriate safety standard)
- c. Hearing protection is required at all times while using portable power tools whose noise levels are greater than 85 dBA.
- d. All power electrical tool or equipment (including extension cords) should be rated for appropriate electrical classifications. If not, work group must provide SWP for use.
- e. All portable electric tools or equipment shall be isolated from the power source before making adjustments or changing drill bit, blade, etc.

7. Pneumatic Tools

- a. All pneumatic tools or equipment (including hoses) shall be inspected prior to use.
- b. Hoses must be depressurized prior to changing pneumatic equipment unless the fittings are designed to be disconnected under pressure.

8. Grinders and Buffers

- a. Tool rests on grinders shall be set not more than one-eighth inch from the wheel and level with the center line of the wheel. Tongue guards on grinders shall be set not more than one-quarter inch from the wheel.
- b. Buffers are not to be operated with tool rests. Guards on buffers shall be cut back at the bottom approximately 30 degrees behind the vertical centerline of the guard.

9. Quick Connectors/Hoses

- a. Quick connectors used for air and water must not be compatible with quick connectors used for nitrogen or other services.
- b. Utility Connections and Hoses
 - Hose, connections, and gaskets must be visually inspected prior to use and hose may not be used if defects are detected which could adversely impact the integrity of the hose.
 - Utilize back flow prevention when connecting to utility systems
 - Utility Hoses and connections are to be used only in the service specified:
 - Nitrogen - Dixon Dual Lock fitting (equivalent fitting is National Series A fitting). Hoses are yellow in color.
 - Breathing Air - 1/4" Hansen Series 3000 fittings or 3/4" Series 6000 fittings. Hoses are black in color.
 - Plant Air - Chicago Pneumatic type (Crowsfoot) fitting, compatible with safety locking pins. Hoses are red in color.
 - Water - Chicago Pneumatic type (Crowsfoot) fitting, compatible with safety locking pins. Hoses are red in color.
- c. Air for Pneumatic Tools In a Confined Space - 3/4" Hansen Series 6000 fitting. Hoses are green in color .

- d. To ensure positive locking at all times, hose connectors shall be in good condition and not abused.
- e. Sandblast hose connections shall be the safety lock type which prevents accidental disengagement.
- f. Hose construction specifications are outlined in the [Texas City Hose Specification Manual](#). All hoses must be fitted with proper quick disconnects for designated service or be hard piped.

10. Powder Actuated Tools

Powder actuated tools must not be used without an SWP and written approval of the Plant/Functional Leader or owner's representative.

11. Welding Leads

To minimize the possibility of intermediate arcing during arc welding, the grounding lead must be connected as close as practical to the work piece.

When arc welding is to be done in an area restricted by a Safe Work Permit, the grounding lead shall be connected to the work piece within the limits specified in the permit.

All leads and lead connections shall be in good condition and free of any exposed conductors, and must be inspected prior to use.

12. Jackhammer Operations:

PPE requirements:

- a. Padded or shock absorbing gloves,
- b. Double hearing protection is required when using jackhammer equipment. May also require job rotation due to high noise. Contact Industrial Hygiene (>115 dBA),
- c. Face shield with goggles or side-shield glasses and toe and metatarsal arch foot protectors
- d. Personnel in close proximity of jackhammer operations shall also wear a face shield, hearing protection, toe and metatarsal protectors
- e. Shin Guards may be required for the operator depending on the angle of the equipment during use.

13. Soil Compacting Equipment

Toe and metatarsal protectors must be worn when using hand-held soil compacting equipment such as a dirt tamper or packer.

14. Quick Opening Valves

Quick opening valves – such as, quarter-turn ball valves, butterfly valves, etc. – containing hazardous materials must be plugged or blinded when not in use.

15. Material Pass

A material pass is required for tools and material leaving the plant. Material passes may be obtained from a contract administrator or after regular business hours contact the plant Emergency Director.

All vehicles are subject to routine search upon entering or leaving the site.

H. CHEMICALS AND MATERIALS

1. Chemical Hazard Identification

See the Texas City Hazard Communication standard. (Hazard Diamond Diagram can be found after Index.)

2. Potable Water Cross Connection

Crossties are not allowed on any potable water line. Safety showers, eyebaths, water fountains, food preparation, etc. all use potable water.

Hoses (unless food preparation, clothes washing machine) must not be used on potable water lines/faucets.

3. Industrial Gases Used in Buildings or Confined Areas

Adequate provisions must be made to prevent an oxygen deficiency when nitrogen or other industrial gases are used inside buildings such as shops, labs or welding enclosures. Proper permitting must be secured. (ref. Oxygen Deficient Atmospheres)

Adequate provisions must be made to control personnel access to confined areas such as analyzer houses which have nitrogen or other industrial gases used inside. (ref. Potentially Hazardous Enclosures)

4. Pressuring Drums or Portable Containers

Drums or portable containers shall not be pressured or padded in order to remove contents.

5. Lubricants

All requests, purchases, contracts for, usage and changes in application of lubricants must be approved by Maintenance Technical Services and may require an MOC.

6. New Chemicals / Materials

New chemicals must be approved per the MOC process prior to introduction to the site.

Introduction of any chemical into the plant by a contractor must receive permission from a contract administrator. This includes material in spray cans, paint buckets, drums, etc.

I. PORTABLE LADDERS

1. General Requirements (ref. Elevated Work standard)

NOTE: Working off a ladder will require fall protection / prevention if feet are 6' from grade. (ref. Elevated Work standard)

- a. Ladders shall be non-conductive, industrial strength, and capacity rated for at least 250 pounds (Industrial – Heavy Duty).
- b. The design capacity shall not be exceeded (total weight of person plus materials).
- c. The user is responsible for visually inspecting a ladder before use and ensuring that the ladder capacity is not exceeded. Any ladder found defective shall be tagged with a “Warning” tag, removed from service, and repaired or destroyed.
- d. Ladders are not to be used as pencil or scaffold boards.
- e. Both hands must be used for climbing. A minimum of three-point contact must be maintained at all times.
- f. Only one person is permitted to climb a ladder at a time.
- g. A ladder shall not be used to gain access to a roof unless the top of the ladder exceeds at least 3 feet above the point of support at eaves, gutter, or roof line.
- h. Ladder must be held by another person unless secured (climb up to tie off and climbing down after untying).

2. Straight and Extension Ladders

- a. Extension ladders shall have one of the lower rungs of the upper section tied to the adjacent rung of the lower section when in use.
- b. Straight and extension ladders must be equipped with nonskid feet.
- c. Straight and extension ladders shall be placed at such an angle that the base is one-fourth of the working length of the ladder out from the top support (e.g., 20 feet up, 5 feet out, or 1 rung out for each 4 rungs up).

J. PLATFORMS AND SCAFFOLDS

1. Platforms

- a. Makeshift platforms, such as stacked material, chairs, boxes, or drums shall not be used.
- b. Rolling platforms shall be utilized according to the manufacturer's recommendations, not altered in any way, and not ridden while being moved.

2. Scaffolds

- a. Users of scaffolds must be trained in scaffold access by either taking the Scaffold User Training at the Contractor Safety Council or on Learn @ Dow.

- b. Only trained personnel shall erect, move, dismantle, inspect or modify scaffolds.
- c. A tagging system will be used to identify hazards on complete and incomplete scaffolds. (ref. TCO Scaffold standard)
- d. An Incomplete Scaffold / Pencil Board Checklist must be approved before erecting an incomplete scaffold (e.g. missing handrails, missing plank, hole in deck) or pencil board scaffold. Fall protection is required if working from an incomplete scaffold
- e. Scaffolds must be inspected each work shift by a competent person for each contract company who uses the scaffold; this inspection is documented on the back of the tag. Scaffolds must additionally be inspected prior to use by each Scaffold User and safety precautions must be in place when using the scaffold (i.e. fall protection, etc.)
- f. An access ladder or equivalent must be used to access or egress work levels of scaffolds.
- g. Scaffolds must not be used as material hoist towers or for mounting derricks without first determining the loads and stress involved.
- h. Maximum loading for a scaffold:
 - 1. Standard (supported) - Three people and a dead load not to exceed 200 pounds or a total distributed load not to exceed 800 pounds.
 - 2. Suspended (wire rope, etc.) – Two people and a dead load not to exceed 200 pounds or a total distributed load not to exceed 600 pounds.
- i. Scaffold tubes are not to be used to store tools, (knives, wrenches, welding rods, etc.)
- j. When toeboards are missing, the area around the scaffold must be barricaded with warning tags (ex. Danger overhead – No toeboards on scaffold)
- k. Rolling tower scaffolds must be free of personnel, material, and equipment before being moved. Caster brakes on rolling tower scaffolds must be locked while in use.
- l. Scaffolds shall not be erected closer than 8 feet, 9 inches from the center of the railroad tracks without permission from the Site Logistics Rail Handler. If a scaffold straddles the railroad track, the first deck must provide a clearance of 22 feet, 6 inches from the top of the rail.
- m. Authorization must be obtained from the Electrical Distribution Department (Energy Systems) before erecting scaffolds within 10 feet of electrical distribution equipment.
- n. Scaffolds shall not be built within 20 feet of any energized un-insulated electrical lines without proper insulating barriers.

K. ELECTRICAL (REF. ELECTRICAL SAFE WORK PRACTICES STANDARD)

1. General Requirements for Electrical Work

- a. Work on or adjacent to un-insulated electrically energized equipment can not be done without the permission of the TCO contact and must be in accordance with specific written procedures.
- b. Safe Work Permits are required before working on electrical equipment (e.g., electrical switch gear, motor control centers, transformers, disconnects, etc.) which has been previously energized.
- c. An Assured Equipment Ground Conductor Program, Ground Fault Circuit Interrupters (GFCI's), or double insulated tools shall be used to operate portable electric tools or equipment (including extension cords).
- d. GFCI required when working in wet locations or in a Confined Space.
- e. Permanent electrical grounding connections or systems that are disturbed or damaged must be reported immediately to the TCO contact.

2. Working Near Energized Power Lines

- a. Authorization must be obtained from Electrical Distribution Department (Energy Systems) before operating power equipment (such as mobile hoisting, personnel aerial lift, drilling, or dirt moving machinery) within 16 feet of electrical distribution equipment.
- b. Power equipment (such as mobile hoisting, personnel aerial lift, drilling, or dirt moving machinery) shall not be operated within 13 feet of any energized uninsulated electrical lines without proper insulating barriers. (refer to Electrical Safe Work Practices EWP 9)
- c. Any work where personnel or equipment will be within the 16 feet of any overhead power line requires approval from the owning department. This includes cranes, condor lifts, bucket trucks, scaffolds, ladders, and other types of elevated work platforms.

L. RADIATION

The Radiation Safety Officer must be contacted prior to purchasing, installing, moving, transferring, or disposing of radioactive devices and materials.

A Radiography Checklist shall be used along with a Safe Work Permit.

Industrial radiography work must conform to the procedures and training requirements. (refer to [TCO Industrial Radiographer Safety Policy](#))

M. ASBESTOS

All asbestos work on the Texas City Operations site will be accomplished in accordance with the Global and US Dow Asbestos requirements (as well as TCO Site, facility and maintenance procedures).

N. REPORTING INCIDENTS

All occupational injuries and illnesses must be reported immediately (ref. [TCO Injury/Illness Reporting standard](#))

All hazardous conditions, incidents (equipment damage, spills, fires, injuries, etc.) are reported to your supervisor, host, Job Representative, and ES&S (ext. 4444) immediately.

Contractor Incident / Accident / Safety Suggestion / Unsafe Condition Reporting (ref [Bay Area Contractor Admin Manual](#)):

- Initial report must be received by 10am the next working day
- Investigation completed by 3rd working day
- Final report by 7th working day

All odors (inside the fence line and external to the site) are to be reported to your supervisor, host, and ES&S (ext. 4444) immediately.

O. NON-DOW COMPANIES WORKING AT TCO

EH&S Procedures are available to non-Dow companies desiring work on TCO property, and can be obtained through the Job Representative. These include Procedures such as: Safe Work Permitting, Hot Work, Line & Equipment Opening, Breathing Air Systems, Fire Protection, Abrasive Blasting, Electrical Job Procedures, Pressure Vessels, and Industrial Hygiene Requirements. Compliance to requirements outlined in these procedures is mandatory to work on TCO property.

Every contract company working at TCO is assigned a Job Representation to ensure there is a TCO person identified to be responsible for all Contract Suppliers coming on Site (Contract Administrator for Maintenance Contractors, Owner's Rep for Construction Contractors, or Job Reps for Service contractors e.g. I/S, EH&S, Process Automation, Logistics, etc.). The Job Representative Role will be assigned to the TCO Job Requestor unless someone else has been assigned, i.e. One Time P.O. Job Rep. (Ref. [Bay Area Contractor Administrative Manual](#) – Job Rep Responsibilities)

P. SUBSTANCE ABUSE PROGRAM ([SITE POLICY](#))

All employees are eligible to participate in the random substance abuse testing program.

Any employee reporting or attempting to work in an impaired condition may be subject to disciplinary action.

An employee who is suspected by observation to be in an impaired condition will be required to undergo evaluation by Health Services and submission to a substance abuse screening test.

Visitors or contractors reporting or attempting to work in an impaired condition will be subject to the plant's substance abuse policy.

Employees are to notify supervision if they observe behavior indicative of an impaired condition in any person in the plant.

Employees are to notify Health Services of prescription drugs which may produce an impaired condition or be mind altering.

Q. VARIANCE TO STANDARDS AND RULES

(Ref. Global Variance Standard and TCO Variance policy)

The Responsible Care Leader must approve variances to Responsible Care Standards and Rules. All variances must be issued for a specific length of time and may be renewed. The plant/department is responsible for maintaining a current list of all variances, which have been approved.

R. THREAT OF VIOLENCE

Texas City Operations has a zero tolerance when it comes to any type of violence, including threats. Employees at all levels may not engage in any violence actions or make any threats of violence. All threats will be treated as real and dangerous, until proven otherwise. Report all threats to your supervisor immediately.

TEXAS CITY OPERATIONS EMERGENCY PROCEDURES

(Ref Texas City/Unit Emergency Response and Site Emergency Alarm System policies)

A. SITE EMERGENCY PLAN

Each department shall ensure that employees working in a unit familiarize themselves with the Texas City Operations Emergency Response Plan and the department's Unit Emergency Plan found in the "Unit HazCom"/Guest in the House Program.

B. EMERGENCY RESPONSE (409-641-4444) EXT. "4444"

In the event of an emergency, such as a spill, gas release, fire, explosion, extensive power failure or ambulance call in any area of the plant, extension "4444" can be called or the Emergency Alarm boxes can be actuated, and give the following information:

1. Dial "4444" and state that you want to report an emergency. (If this number is busy, dial 4409.)
2. Give your name, phone number from where you are calling and stay on the line until your message is understood and confirmed.
3. State the nature and location of the emergency. In case of a spill or gas release, give the following information if known:
 - a. Dial "4444" and state that you want to report an emergency. (If this number is busy, dial 4409.)
 - b. Give your name, phone number from where you are calling and stay on the line until your message is understood and confirmed.
 - c. State the nature and location of the emergency. In case of a spill or gas release, give the following information if known:

Station someone on the road to direct emergency equipment to the scene.

C. EMERGENCY SIGNALS

THE FOLLOWING PROCEDURES SHALL BE USED TO REPORT A FIRE, EXPLOSION, MAJOR CHEMICAL SPILL, GAS LEAK OR SERIOUS INJURY AND SHALL ALSO BE USED FOR THE PROPER RESPONSE TO THE SITE EMERGENCY ALARMS.

DEFINITIONS

The basic site emergency alarm system components are alarm boxes, alarm sirens, blue strobe lights in high noise areas, blue rotating lights at personnel entry/exit gates, blue strobe lights at roadway intersections, and EARS receivers. The purpose for each component is:

1. ALARM BOXES - Are used to activate the alarm system. Boxes are bright red, and are identified with large red and white bull's-eyes. Each box is individually identified as described in the "Alarm Codes" section below. Boxes are often located near roadways, along the perimeters of production units.
2. ALARM SIRENS - Are located through the site on tall utility poles. These sirens are computer controlled and generate tones, which are followed by verbal messages. Four tones are generated:
 - a. FIRE/VAPOR RELEASE/MEDICAL - Is indicated by a continuous, relatively long duration, wail-type high and low tone. Verbal messages following the tone will tell the type, box, and location of the emergency.
 - b. EVACUATION EMERGENCY - Is indicated by a 4 long blasts then 4 short blasts. Verbal messages following the tone will tell the type, box, and location of the emergency.
 - c. TWO-BELL UTILITY SHORTAGE EMERGENCY - Is indicated by two short discontinuous bursts, which simulate an air horn sound. Following the tone, verbal messages will be broadcast over EARS describing the nature of the utility shortage.
 - d. ALL CLEAR - Is indicated by a continuous, relatively short duration high and low tone. The "All Clear" tone will be followed by an "All Clear" verbal message.
 - e. FIRE SUPPRESSION - Verbal messages following the tone will tell the location of the emergency.
3. BLUE STROBE LIGHTS IN HIGH NOISE AREAS - Are used in noise areas where it might be difficult to hear the siren alarms.
4. BLUE STROBE LIGHTS OVER SELECTED ROADWAY INTERSECTIONS - Are used to inform vehicle drivers that an emergency is in progress and that all traffic is to stop.
5. EARS RECEIVERS - are radio receivers (located throughout the facilities, including all control rooms and occupied buildings) which are to be used as the primary means of obtaining information about the emergency once the siren alarms have been activated. Those building designated, as Assembly Points, will be identified by a blue circle on a sign located on the building and will have an EARS receiver inside.

1.0 SAFETY PROCEDURES

A. ACTIVATING THE ALARM

1. All personnel have the responsibility and authority to activate the Emergency Alarm System when they observe any event that could endanger personnel or equipment. Activate the emergency alarm system if a fire, flammable or toxic vapor cloud, major material spill, or serious medical emergency occurs.

The Emergency Alarm System can be activated by actuating an Emergency Alarm box or the alarm should be telephoned in, 409-641-4444 for Fire Response, Medical Response, and for 2-Bell Alarm. Be prepared to state the type of emergency (fire, injury, vapor cloud, etc.), and where it is located.

Note: All personnel are to know the location of all alarm boxes in their work area.

If actuating an Alarm box and safe to do so, either stay by the fire alarm box or go to the upwind road intersection to help direct emergency teams to the scene.

Activating an Emergency Alarm Box

To activate the alarm system, push the yellow button for a vapor cloud, or the red button for all other types of emergencies. This will activate the sirens and summon the emergency teams. Activation of certain fire suppression systems will cause automatic activation of the alarm system.

Alarm Codes

When a box is activated, the siren system will sound a tone followed by a verbal message identifying the number of the box activated and the location of the box. The box number identifies the approximate location of the emergency by the following code:

1st Number	ZONE
2nd Number	AREA
3rd and 4th Numbers	BOX NUMBER

Refer to a site fire alarm plot plan for a visual representation of zones and areas.

2.0 ALARM RESPONSE PROCEDURES

A. GENERAL RESPONSE TO AN ALARM

1. Personnel not responding to the emergency must leave the immediate area of the emergency.

2. Traffic Response. Blue strobe lights near traffic intersections indicate an emergency is in progress. When blue lights are activated vehicle drivers not responding to the emergency must pull over to the piperack side of the road, stop, switch off the vehicle ignition, and proceed to the nearest assembly point for further instructions. Wait for the All Clear Signal before proceeding or the Incident Commander has released traffic via an EARS notice, at which time the blue lights are turned off.
3. Plant vehicle gates if closed for an emergency must not be blocked by stopped vehicles.
4. Plant phone are restricted to emergency support. Non-emergency phone conversations should be promptly and cordially terminated.
5. The area Immediate Response Leaders have a special responsibility to understand the emergency situation and initiate any needed responses in their units, such as cease certain work, assemble in a particular place, etc. This may require relaying appropriate information via radio, intercom or other methods to personnel located in the area.
6. All Safe Work Permits and Confined Space Entry Permit(s) shall be suspended and all work will be stopped until the location and nature of the emergency is known. If the emergency is NOT located within the work area nor if the work area is affected by the location of the emergency, work may then continue only with the reauthorization by the SWP Issuer to insure the safety of all personnel is not compromised. (False alarms do not require re-authorization.)
7. In the event the location of the emergency is located within the work area or might be affected by the close proximity of the emergency, ALL personnel in the affected area should respond as follows:
 - a. Shut down unnecessary equipment and leave the area.
 - b. Report to your pre-designated or alternate assembly area as outlined by the SWP /Unit Specific Training.
 - c. Monitors EARS for further instructions.

3.0 SITE EMERGENCY ALARM TEST

Texas City Operations emergency alarm system is tested every Wednesday at 11:05am.

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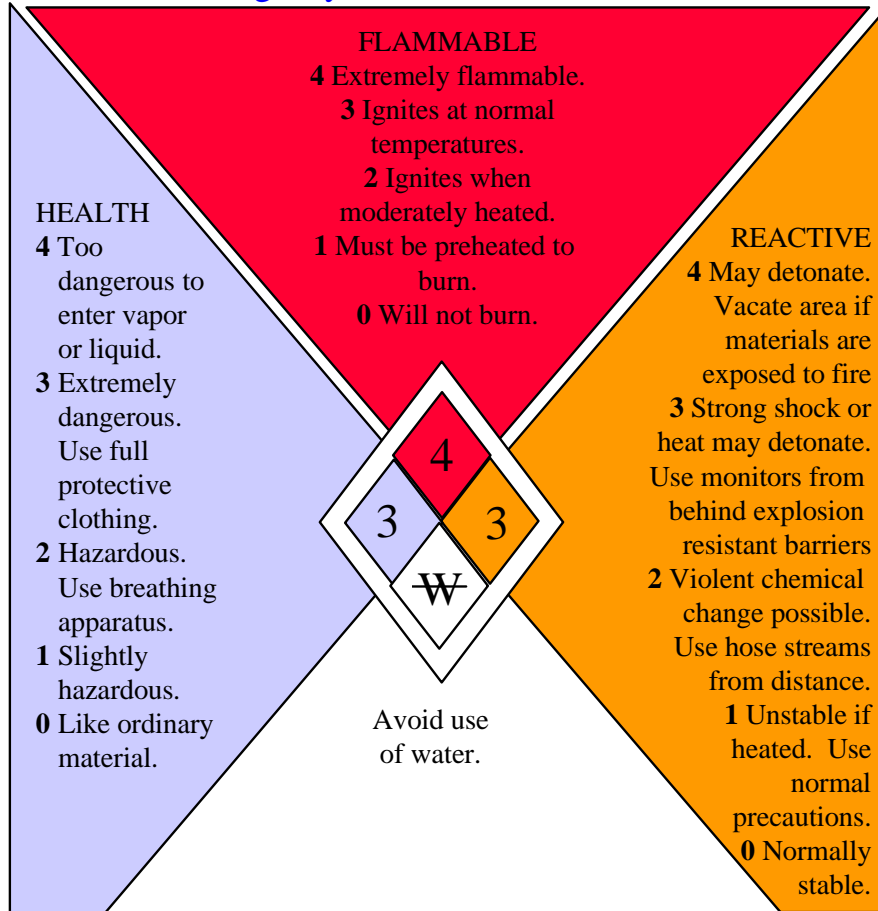
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**NFPA
704 CODE**

Emergency Guide for Hazardous Materials



SAFETY RULES



SAFETY RULES

SAFETY RULES

EMERGENCY SIGNALS

ALL CLEAR

Continuous, relatively short duration high and low tone followed by an "All Clear" verbal message.

Fire/Vapor Release/Medical/Eva cuation Emergency

Continuous, relatively long duration, wail-type high and low tone. Verbal messages following the tone will tell the type, box, and location of the emergency.

UNIT EVACUATION ALARM

A signal within the unit to alert non-essential personnel to evacuate the area.

Two-Bell Utility Shortage Emergency

Two short discontinuous bursts, which simulate an air horn sound. Following the tone, verbal messages will be broadcast over EARS describing the nature of the utility shortage