The NASSCO Safety Policy

We ensure a safe workplace for all



NASSCO’s Total Safety Culture exemplifies the value: Ensure a safe workplace for all. What makes us believe this is one of our core values?

* **All accidents can be prevented**. What is an accident? An accident is a specific, identifiable, unexpected, unusual and unintended external action which occurs in a particular time and place, without apparent or deliberate cause but with marked effects. It implies that the outcome could have been avoided or prevented had the events leading up to the accident been recognized and acted upon prior to its occurrence.
* **All activities can be performed without risk or harm to people or facilities**. Being aware of potential risks and knowing the right thing to do go a long way to help us do our jobs safely.

**EMERGENCY NUMBERS**

 **Incident Type Landline Cell Phone**

 Fire or Medical 911 619-544-8777

 Spill Reporting x8401 619-544-8401

 **GENERAL INFORMATION NUMBERS**

 **Type of Information Landline Cell Phone**

 Environmental x7506 619-544-7506

 Fire Department x8889 619-544-8889

 Maintenance x8666 619-544-8666

 Medical x8861 619-544-8861

 Safety x8444 619-544-8444

 Security x8401 619-544-8401

# Scope of Responsibility

## Safety responsibilities for companies or individuals working within the NASSCO yard or at a NASSCO controlled job site.

## All on-site managers, supervisors, foremen, and/or safety representatives for any company or government agency must complete a Safe Practices Survey. Approval by NASSCO Safety Department is contingent on satisfactory review of the survey, IIPP, and any other documents that may be required. Approvals are good for two years and must be subsequently renewed.

## Each on-site manager, supervisor, foreman, and/or safety representative is responsible for the safety of those individuals working for him. All working individuals must have a thorough knowledge of the contents of this handbook.

## The need to warn other trades working in the vicinity of their work areas of any potential hazards that may be generated by their work activity is the responsibility of the on-site manager, supervisor, foreman, and/or safety representative.

### Work processes that could affect others in the vicinity must be scheduled with the ship’s manager/area manager and all individuals who could be affected must be warned and/or removed from the potentially dangerous area.

## Regular inspections of your work areas must be conducted to ensure that no hazardous conditions exist.

## All unsafe and potentially unsafe conditions must be corrected immediately.

## Immediate action must be taken to correct any unsafe acts that are observed.

## Each on-site manager, supervisor, foreman, and/or safety representative must ensure that all of their employees are in full compliance with Fed/OSHA, Cal/OSHA, NAVSEA Standard Items and NASSCO Safety Rules, Regulations, Policies and Procedures.

## It is the responsibility of all companies or individuals to notify NASSCO supervision of any unsafe condition noted in their work areas which is beyond their control.

## NASSCO Safety Department must be contacted if work procedures change, different chemicals are needed, or equipment other than that discussed and cleared will be used.

## NASSCO is committed to a “Total Safety Culture”. All employees are responsible for the safety of themselves and all others around them. They are fully empowered and expected to take immediate action to correct any “AT RISK” health and safety situations. (“AT RISK” means situations that are unsafe or have the potential to cause injury.)Should any employee remind another worker of the need to work safely, it is expected that the worker will respond in a positive manner and correct his/her “At Risk” behavior.

Any reference material needed to conform to the foregoing is available for review at the NASSCO Safety Department.

# Communication Requirements

## You must inform other workers nearby of any potential hazards that may be generated by your work activity. Any “at risk” conditions must be reported to the appropriate personnel so corrective action may be taken.

## All employees are charged with the overall safety of their work area.

## Any accident or injury that occurs while working on a NASSCO job must be reported to the NASSCO Safety Department immediately by phone, 619-544-8444. A formal written report of the injury and investigation of the accident showing causation must be submitted to the NASSCO Safety Department within 5 working days.

### The report must be on the NASSCO Accident Report form or an equivalent form which requires the same information.

# Emergency Reporting Procedures

## Fire

### Use any of the Emergency Phones located in red boxes on board all ships and on all piers and berths. Or, you can use any yard telephone.*Simply dial 911*. Or from a cell phone dial (619) 544-8777

###  Report the exact location of the fire, what is burning and at what stage the fire is in. The guard will also need your name, and the telephone number that you are calling from. *Do not hang up the phone until the guard has done so.*

## Injuries

### The reporting procedures are identical to those shown above for a fire.

### Report the exact location of the medical emergency so that the emergency responders will be able to find it. If possible, be prepared to meet the emergency responders at the brow and guide them to the scene.

## Alarms

### When an alarm goes off, stop what you are doing and listen for the verbal message that will follow. Then do as directed.

### Do not automatically try to exit the ship. Do not leave until you are told to abandon the ship. At that time walk in an orderly manner to the brow and off the vessel.

### Should an abandon ship order be given, immediately after disembarking, proceed to your designated muster location. If you are supervising, conduct a head count of your employees. If anyone is missing or unaccounted for, notify a member of the NASSCO Fire Department, located on the pier so that a search can be initiated. Do not return to the ship unless directed by the NASSCO Fire Department.

# Environmental Regulation Compliance

# Each company or individual has an inherent duty to fully comply with all environmental regulations pertaining to:

## Air pollution,

## Water/Bay pollution,

## Sewers,

## Hazardous materials use, generation, control, and disposal.

## Direct questions on environmental regulations to 619-544-7506 or envreports@nassco.com

# Hazard Communication

## Each on-site manager, supervisor, foreman, and/or safety representative must ensure that a Safety Data Sheet (SDS) is immediately available to any employees and that they are aware of the SDS location for every chemical and compound that is being used by them at NASSCO.

## For any chemicals transported into the shipyard, NASSCO Safety Department must be provided with a copy of the SDS and an SDS Review Form, which indicates how the chemical will be used. These must be submitted to and approved by the Safety Department and by the Environmental Engineering Department before the chemical enters the shipyard or is used on any NASSCO project.

* 1. Each different department or different type of end user with in the same department must submit separate SDS Review Forms.
	2. After review by the Safety Department and the Environmental Engineering Department, The completed forms will be returned to the initiator along with a Safety Card which contains information from Safety Department related to the chemical’s health hazards, personal protective equipment requirements, engineering control requirements, etc.
1. As part of Hazard Communication Training the on-site manager, supervisor, foreman, and/or Safety Representative must ensure that the contents of the SDS and the information on the Safety Card are explained to those employees using that chemical**.**
2. All containers of chemicals must be properly labeled. It must list, at a minimum, the name of the manufacturer, the trade name of the chemical, the prevalent hazards of the chemical, the target organs, personal protective equipment required, and any other special handling requirements.
3. All of NASSCO’s (Material) Safety Data Sheets are available from the Safety Department or from a supervisor who can obtain it electronically from Livelink. Second and third shift personnel may obtain a SDS through the NASSCO Fire Department or Security at Gate 6. You must ask for it by providing the name of the manufacturer and the name of the product.
4. All NASSCO SDSs are also available at the NASSCO safety office.

# Hazardous Materials Heath/Safety Program

Companies who use materials or products that contain hazardous substances or who disturb marine coatings that contain hazardous substances must have a Hazardous Materials Health/Safety Program.

Hazardous materials include toxic metals such as lead, cadmium, hexavalent chromium, arsenic, mercury, and other metals that exist in highly toxic form, such as organic tin, nickel carbonyl, etc.

Hazardous materials also include toxic organic compounds that exist in paints, solvents, adhesives, etc.

Important program elements of a Hazardous Materials Health/Safety Program include:

A. Description of work activity

B. Work site location

C. Type of work space

D. Pre-work health/safety risk assessment

E. Engineering controls

F. Hazardous waste disposal procedures

G. Employee exposure monitoring

H. Employee personal protective equipment

I. Health and safety training

J. Medical surveillance

K. Other subjects specified by substance specific regulations

On U.S. Navy repair contracts, a special GD NASSCO Hazardous Material Work Notice is required to be completed and posted before performing any work involving the use, removal, or disturbance of materials listed in Subpart Z of 29CFR Part 1915, OSHA Shipyard Industry Standards.

# Suspect Asbestos-Containing Materials (ACM)

The following materials must be tested for asbestos prior to their disturbance: surfacing/ flooring materials, thermal insulation, roofing/ siding, acoustical materials, sealing/gaskets, brake pads, clutch plates, and other suspect materials.

Only current asbestos qualified inspectors (CA certified Asbestos Consultants or AHERA Building Inspectors) may make determinations concerning ACM and obtain bulk samples.

Bulk sample analysis may be sent to an outside laboratory. (It is recommended that the laboratory be enrolled in a PAT or NAVLAP program for analytical proficiency.)

Bulk samples may also be sent to the NASSCO Industrial Hygiene laboratory for analysis

Documentation of ACM inspections and analytical results shall be provided to the Safety and Repair Departments prior to the disturbance of any suspect materials.

If any suspect ACM is accidentally damaged or impacted, protect the immediate area by isolating and controlling access by personnel. Notify your supervisor and a NASSCO safety representative and have the material tested so proper repair and clean up procedures can be initiated.

# Personal Protective Equipment (PPE)

Steps must be taken to protect employees from hazardous exposures. The preferred way is to change the work process or otherwise eliminate the hazard. If this is not possible, then the employee must be isolated from the hazard. This is usually accomplished by a guard of some sort. If this cannot be done, then the third form of protection, personal protective equipment (PPE), must be used. Required personal protective equipment includes:

## Hard HatHard hats are required to be worn at all times. They are required on board all ships, in the shipyard, on the roadways and in all production areas.

## Exceptions: They are not required in offices, in enclosed vehicles, and in some shops. They are not required to be worn to and from the gate when reporting to or leaving work at the beginning or end of the work shift, nor are they required during the normal production lunch periods.

### Metal hard hats shall not be worn. At a minimum, hard hats must comply with ANSI Standards Z89.1.

### “Cowboy” style or hard hats with an upturned brim or crown concavity may not be worn.

### The suspension liner must be worn with the adjusting mechanism on the back of the head.

## Industrial Safety Glasses with Side ShieldsSafety glasses are required to be worn at all times. They are required on board all ships, in the shipyard, on the roadways, in all shops and in all production areas.

## Exceptions: They are not required in office spaces or enclosed vehicles. They are not required to be worn to and from the gate when reporting to or leaving work at the beginning or end of the work shift, nor are they required during normal production lunch periods.

### Industrial safety glasses with side shields must conform to ANSI Z87.1 standards and the frame and lenses must so indicate.

### Those individuals who require prescription glasses must obtain industrial safety glasses with side shields in their prescriptions, or wear mono-goggles or other approved cover glasses over their street glasses.

### Prescription safety glasses may be obtained through the NASSCO Optician, Building 15 on Wednesday from 7:30 am to 11:30 am and on Thursday from 12 noon to 4:00 pm. The individual needing the glasses or his/her employer will pay for the glasses. This requires a current prescription, one that is less than a year old.

### Photo-sensitive or light reactive lenses are strictly prohibited. Shaded lenses may not be worn below decks or inside of any vessel, in offices or after sunset.

### When grinding, wire brushing or other like work, mono-goggles should be worn under a face shield. Mono-goggles must be worn while conducting any dust producing operation. Contact lenses are not to be worn inside the shipyard or in any production area.

## Clothing

### Shirts must cover the entire torso and have at least a 1/4 sleeve. No tank tops or muscle shirts.

### Trousers must be full length and cover the entire leg. Cuffs will be rolled inside trousers, or sewn closed if outside, to prevent capture of hot metal or sparks.

### Employees performing hot work are not to wear shirts or trousers that contain man-made fibers such as nylon, rayon or polyester.

### All outer clothing must be serviceable and free of frays, holes, rips, or tears.

## Work shoes

### Work shoe must have a industrial protective toe cap footwear (ASTM F2413) , a sturdy all leather upper that covers the entire foot, including the tongue, and must have a well defined heel of at least 1/4 inch and no more than 1-3/4 inches.

### Access to blocks with exposed pins on deck requires steel sole inserts in the shoes to protect against punctures. Puncture resistant boots may also be worn.

## Safety Harness, With Lanyard

### Must be worn any time the employee is exposed to a fall hazard of five feet or more, unless the employee is protected from falling by a guard rail system.

### When operating a boom lift, the lanyard must be hooked to the basket.

### When operating a sky climber, the lanyard must be hooked to a rope grab that is connected to a life line.

### When climbing a mast, the harness must be equipped with the rose collar climbing device for attachment to the center post.

## Face Shield

### Must be worn when grinding, wire brushing, working in the overhead, working with chemicals that could splash on the employees face, or any other like activities.

## Gloves

### Leather or cloth gloves should be worn whenever the employee is handling material that is rough or otherwise abrasive.

### Leather gloves are used when handling hot or potentially hot metal.

###  Chemical protective gloves are to be worn when handling certain chemicals. The Safety Department determines the proper chemical protective glove based on the chemical formulation, and the glove material’s breakthrough time and permeation rate.

### There are many types of gloves that protect against specific hazards and these should be used according to the particular hazard.

### Leather gauntlets are required when performing welding and burning operations.

### Anti-vibration gloves should be worn during work involving high vibrating hand tools.

## Hearing Protection

### Hearing protectors must be worn in all production areas.

## Welding Hood

### Welding hoods used at NASSCO must be a full sized hood that connects to the hard hat. Soft hat welding is not permitted at NASSCO other than in shops. Welding hoods must be in good condition and undamaged (NO REPAIRS ARE AUTHORIZED).

### If the area to be welded is so tight and close that the welder cannot get access with the full sized hood and hard hat, a leather sock hood may be used. As soon as the welding has been completed the employee must wear a hard hat.

##  Respirator

### A respirator with the appropriate filter or cartridge is required while performing hot work, painting, or using solvents in enclosed or semi enclosed areas where a vertical surface prevents natural cross ventilation from removing fumes or contaminants entering the employee’s breathing zone.

### Employees must have no facial hair in the way of the respirator seal. In most cases this means no facial hair except for well trimmed mustaches.

### Reusable respirators must be stored in a reseal-able plastic bag when not being worn.

### Do not use a respirator without proper training and current fit test.

### This is not intended to be a complete list of PPE required, but the most commonly used. All PPE must be fully serviceable with no defect that compromises the function for which it was designed. Any modification of safety equipment is not authorized. Any equipment so modified will be removed from the shipyard.

# Hot Work Procedure

1. On board U.S. Navy vessels in the shipyard for repair, a Hot Work Request must be submitted at least 30 minutes and no more than 24 hours PRIOR to doing the Hot Work. See NAVSEA Standard Items.

### The Hot Work Request must be signed off by NASSCO QA and the ship’s representative and a copy of the request returned to you.

### Prior to the start of hot work the hot worker and a Permit Authorizing Individual (PAI) must conduct a pre-hot work inspection and sign the hot work Chit (permit). The PAI is designated by your company and is trained to recognize and control fire hazards in the hot work area.

###  Do not begin any hot work until this inspection and document verification has been accomplished.

1. Prior to submitting commencing Hot Work, you must physically inspect the area in which the hot work is to be done to ensure:
	* 1. That there are no combustible materials within 35 feet of the proposed hot work.
		2. That all machinery and other equipment that could be damaged by hot work are adequately protected.
		3. That you have determined how many fire watches will be required. All areas that could be affected by the hot work must have a FIRE WATCH.
		4. On U.S. Navy Repair Contracts, all areas affected must have a fire watch. On new construction and other repairs, the need for a fire watch will be determined by the conditions present and the potential hazards involved.
		5. If the space is a machinery space or a confined space you must check to ensure that the space has been signed off as “Safe for Man and Safe for Hot Work”.
		6. That you have inspected the other side of any deck, overhead, or bulkhead for anything that could be affected by your hot work and have posted a fire watch.
		7. Only fire retardant tape is used to secure local ventilation.
2. For stainless steel or other toxic metal hot work, a special separate notice is also completed and posted at the hot work site with the approved hot work request. Forms are available from NASSCO’s Safety Department.
3. The request must be submitted to the NASSCO Safety Department at least one (1) day in advance of the work.
4. The form will be returned to the initiator indicating the required safety controls.
5. NASSCO Safety Department will notify the South West Regional Maintenance Center.

# Fire Protection Requirements

## All fire watches must be equipped with a fully charged ABC or carbon dioxide (Navy ships) fire extinguisher and be annually certified competent in accordance with OSHA 29CFR1915 subpart P, to use it.

## No containers of a flammable or combustible material may be left open. Containers of any flammable liquid must be equipped with a flash protector screen in the nozzle and have an automatic self closing lid.

## All material brought aboard ship for the purpose of encasing or protecting equipment and materials must be “fire retardant”. That includes wood, paper, vinyl sheeting, cloth burlap or any other covering.

## Any chemical container brought into the shipyard and set aside or stored shall be on a pallet and inside a proper containment vessel.

## A charged fuel gas hose may not be left unattended for more than 15 minutes inside any enclosed space. When leaving your work area, you must either, roll your torch out to blue sky or proceed directly to the manifold, shut the gas valves, disconnect your leads, and cap the connections. Gas hoses are never left unattended in a confined space.

## The OSHA shipyard fire protection rule (29 CFR 1915, Subpart P) states that fire watches are required when combustible material is closer than 35 ft (10.7 m) to the hot work in either the horizontal or vertical direction; cannot be removed; protected with flameproof covers; or otherwise shielded with metal or fire‐resistant guards or curtains. Remember these steps when preparing to do hot work:

* + 1. Inspect the area for material and equipment that can be damaged or ignited by the hot work.
		2. Remove combustibles 35 feet from the hot work area.
		3. If combustibles cannot be removed protect them from the sparks with “A” cloth.
		4. Use “A” cloth or other guards to contain the sparks and prevent them from making contact.
		5. If material or objects cannot be removed or protected, a trained fire watch with a fully charged extinguisher must be posted.
	1. At the end of your shift you must disconnect and completely roll your gas hoses outside to blue sky. No portion of the gas hose is permitted to remain inside the skin of the ship. On Repair vessels where gas hoses are not rolled back, hoses will be uncharged and both ends of each hose must be durably identified with the company name and the badge number of the employee using the hose.
	2. On board U.S. Navy vessels, Fire Zone Boundaries established by Southwest Regional Maintenance Center (SWRMC), the ship’s force Damage Control Officer and the Contractor Ship Manager are set at transverse bulkheads from the main deck to the keel and from port to starboard side. Accesses are clearly marked with signs and outlined by international orange tape.
1. Leads and hoses routed through fire boundaries must have a quick disconnect 10 ft or less from the hatch or opening.
2. Hoses will have non-spill fittings or a manual valve on both sides of the disconnect.
3. Quick disconnects are marked with bright orange tape and will be identified with users name or badge number and company name.
4. Combustible/flammable liquids, gases, high pressure (above 140 psi), steam, and toxic fluids may not be routed through fire zone boundaries without prior written SWRMC approval, via the Prime Contractor.
	1. On board US Navy Vessels lines and leads can only tied up with fire resistant Aramid fibers such as Twaron or Kevlar.
	2. Smoking is prohibited at NASSCO

# Identification of Air, Gas and Weld Leads

## All air/gas/water hoses used at NASSCO are to be in good repair.

## All weld leads must be in good repair with no repairs of any kind within 10 feet of the stinger. No field repairs are authorized.

## To use any compressed air or compressed gases from any manifold located in the shipyard or aboard a ship requires that the user place an identification washer at the manifold connection. The hose will be threaded through the washer so that the hose must be disconnected to retrieve the washer. This washer must identify the company and the worker.

## All weld lead runs will be threaded through a non conductive identification washer, at the weld machine or grid lug, so that the lead must be disconnected to retrieve the washer. This washer must identify the company and the worker.

## All hoses must be disconnected and the washer recovered at the end of the shift, or when not in use. Washers are not to be loaned or borrowed by another employee.

## All gas hoses in confined spaces will be pulled back out of the space on all breaks, lunch time and at the end of shifts. See XI— Fire Protection Requirements. Gas hoses are never left unattended in a confined space.

## On US Navy Repair contracts, all gas hoses will be positively identified at both the service manifold and gas consuming end (i.e. torch or suitcase.), with the employees badge or name and company name.

## All Chicago couplings must be secured with a safety clip inserted through the holes in the flange. If a safety clip is not available, then a piece of wire pushed through and twisted off may be used.

# Local Ventilation Procedures and Requirements

## Whenever any airborne contaminant is being generated, local ventilation must be provided to exhaust the contaminant. Exhaust duct will be under negative pressure, so that a loss of integrity will result in air leaking into the duct and prevent contamination of adjacent spaces.

## Know what jobs you will be doing while at NASSCO. Know what fumes, vapors, dusts or other contaminants your job will create or generate. Generally, all hot work or chemical operations will require local exhaust ventilation if being done in an enclosed area. The exhaust duct must be positioned to adequately remove contaminants at the source and be discharged to a safe location.

## Ducting placed in tanks for ventilation is not to be removed or used elsewhere.

## Do not damage or splice into the side of ventilation ducting. Connect ducting only to the correct sized manifold opening.

## Only fire retardant tape shall be used to secure ventilation ducting.

# Fall Protection

A. It is the responsibility of all subcontractors to train their employees to recognize fall hazards.

B. It is the responsibility of all subcontractors to notify Ship’s Management whenever fall hazards exist, and when their work requires the removal of existing fall protection or creates a new fall hazard so that guarding can be initiated. Work does not start until all fall hazards are controlled by guarding or other suitable means.

C. All deck openings greater than four (4) inches in diameter are covered or guarded except where the use of such guards are made impractical by the work in progress.

D. All deck openings to which employees are exposed are covered with ¾ inch plywood that is cleated with a 2X4 to prevent the cover from slipping from the hole, and labeled by the placard “Open Hole” visibly placed on the plywood; except where the use of such guards are made impractical by the work in progress.

E. Deck openings greater than 23” x 23” are guarded with guard rails or covered with planks, except where the use of such guards is made impractical by the work in progress.

F. Guarding of deck edges must meet the following dimensions.

1. The edge of opening shall be guarded in work areas to height of 36 to 42 inches when employees are working around open hatches not protected by coamings to a height of 24 inches or around other large openings, except where the use of such guards is made impracticable by the work actually in progress.

G. Open holes are attended or suitably cordoned off until manhole access rings or cover devices of suitable construction can be installed. Guards are not required when the use of such guards in made impractical by the work in progress.

# Confined Space Procedures

## Defined

 A confined space on board any vessel is a space that is;

1. confined in nature,
2. has limited access,
3. cannot be ventilated by natural ventilation,
4. was not designed for human occupancy,
5. has contained a flammable or combustible liquid or toxic substance, and,
6. has piping that contained a flammable or combustible liquid or toxic substance.

## A permit is required for hot work in/on confined and enclosed spaces.

## At NASSCO these spaces may be identified by a decal or a Confined Space Log at the access with a Marine Chemist Certificate posted at the access.

## Most of these spaces will be initially certified by a Marine Chemist.

### The Marine Chemist “cert” will be updated on a daily basis by a NASSCO Shipyard Competent Person.

### Do not enter any confined space unless there is a “Confined Space Log” posted that has been signed off within 24 hours of the current day’s date and time of inspection, and that days entry indicates it is safe to enter. Always follow all written instructions on the “Confined Space Log” and Marine Chemist Certification.

# Electrical tools

A. All electrical tools must be in good condition and be grounded or double insulated.

B. Tools must be checked prior to use to ensure that the tool is in good working order.

C. Tools with broken or frayed electrical cord insulation, or missing ground pin, shall not be used. No field repairs are authorized.

1. Extension cords are to be kept clean, dry, free of kinks, and protected from oil, hot or sharp surfaces and chemicals. Cords must not be placed in walkways or on stairs or steps where the cord may be damaged or pose a tripping hazard.

# Lock Out / Tag Out

 Always make sure that all sources of energy are secured. Some equipment may have multiple sources of energy.

A. Tag Out of any system or circuit on board a U.S. Navy ship for repair is done by the ship’s crew or designated representative, using the Navy Tag-Out system. It is imperative that all employees working on any energized or potentially energized systems be very familiar with the Navy Tag Out system. Only trained authorized Employees initiate tag outs.

B. The tag out of any system or circuit on board a new construction vessel is handled by NASSCO’s Test and Trials Division. Any system or circuit that has a potential to be energized by any source of energy, must be tagged out PRIOR to working on the system. You must contact the Test and Trials Division, who will control the tag out.

C. Lock Out/Tag Out on the land side of the shipyard is done with a tag stating who tagged it out and why it is tagged out. The energy source for the system or circuit is locked out with the employee’s own lock. The employee’s supervisor should have a key to that lock.

No one, except the employee whose name is on the tag may remove the lock and tag. Except: In an emergency, when the employee whose lock it is cannot be contacted, the supervisor having the key to the lock may remove it. But, only after the supervisor has completely checked out the sources of energy to ensure no hazard exists if energized. In this event, the supervisor should remain until the locked can be replaced.

D. Any machinery or equipment that is being serviced or repaired must be locked and tagged out to a Zero Mechanical State.

# Rigging Requirements

A. Only approved, standard rigging techniques will be allowed. If you have not been trained in rigging procedures, do not attempt the job. Contact your supervisor so a qualified rigger may be requested to assist.

B. All rigging equipment must be inspected prior to use and used only in the fashion that it was designed to be used.

C. All chain falls and come-a-longs must be hooked in a straight line pull only. No load line chains may be wrapped around the load. Only shackles, slings, beam clamps, and pad eyes in good condition and proper working order may be used.

D. Never over load a piece of rigging equipment. Do not use an extension, or “cheater bar”, on any come-a-long.

E. All chain falls and come-a-longs must be affixed with a metal ID tag showing the expiration of inspection. Equipment may not be used beyond the expiration date.

F. Do not work or pass under a suspended load.

# Machine Guarding and Tool Safety

Guards are installed on machines to protect machine operators and others in the area from injury. Guards are there to prevent injuries and should never be tampered with. It is in everyone’s best interest to make sure all guards are placed correctly.

Tool modification is forbidden. Make sure all tools are in good working condition.

**Check Hand Tools for:**

* cracked or splintered handles
* mushroomed hammer heads
* broken or smoothed surfaces on gripping tools
* dull blades on knives and screwdrivers

**Check Power Tools for:**

* proper guarding
* three prong ground plugs
* cords that are in good condition
* Perform the ring test on grinding wheels prior to installation and after they have been on the grinder.

**Inspect extension cords for:**

* damaged insulation
* broken plugs
* plugs with missing ground prongs
* excessive electrical tape repairs

#  Overhead Crane Lifts

A. All personnel need to recognize the hazards of overhead crane lifts.

B. No matter the size of the load, these materials present a very serious hazard.

C. The **Footprint** is the most hazardous area to be during an overhead lift. This zone extends beyond the area directly under the carried load. The size of the zone is determined by the height of the load. As a general rule, for every foot the load is raised, the Footprint extends outward the same distance.

D. The type of load (i.e. grand block, pallet of materials, condor, scissor lifts) being lifted is an important factor in determining the Footprint. Visually keep the bottom of the load at no more than a 45 degree angle.

E. Always pay attention to alarm sounds and rigger whistles when working near a crane. Move away and keep clear of the area over which the load is passing.

F. Obey the directions of the rigger.

G. Never walk or drive under a suspended load. If you are in a vehicle and can’t move out of the way, leave your vehicle and move away from the load. Never try to edge around or go under any suspended load.

#  Ladders

Metal ladders may not be used on ships or other areas with electrical hazards. There are primarily two types of ladders used at NASSCO, straight ladders and step ladders.

## Straight ladders

 A straight ladder must be secured from top and bottom movement. The employee must face the ladder when ascending or descending the ladder. The employee may not carry anything that would prevent him from using both hands on the ladder. If you must carry something up a ladder, use a shoulder bag or strap. The ladder must extend a minimum of three feet beyond the platform for safe access.

## Step ladders

Step ladders are only used in the “A” frame configuration. They cannot be used as a straight ladder and must not be used to access other elevations. Do not stand or sit on the top two steps or straddle the ladder. Always face the ladder. Do not extend yourself out to the side (use the belt buckle rule: keep your belt buckle within the skids of the ladder). Never tie a step ladder to any object or structure to “steady it”. Always work with both feet on the step ladder at all times.

#  Housekeeping

Practicing good housekeeping habits is critical to our safety at NASSCO. Many workplace accidents are caused by carelessness and sloppiness. Good housekeeping includes:

###  Keep all material, trash, and debris picked up and put into the proper containers.

###  Plan your placement of lines, leads, cords and hoses. Place them in cable hangers and/or crossovers. Route lines, leads, and hoses behind a ladder, not at the top or bottom of the access area to the ladder.

###  Immediately clean up all spills.

###  Eat only in designated areas and throw your trash in the trash cans.

### Do not bring newspapers and magazines on board any ship or hull.

### Do not start any hot work operation until all trash, combustibles (including clothing or unprotected tool bags), or flammable liquids and materials are removed from your area.

#  Vehicles & Motorized Equipment

Vehicles are necessary to shipyard operation, however they present potential hazards. Safe operation is essential to prevent injury to personnel or damage to equipment. A vehicle is a conveyance for transporting personnel and/or materials including but not limited to: automobiles, bicycles, carts (scooters), cranes, forklifts, and motorcycles.

## Vehicle Safety Equipment

### All vehicle safety equipment is required to be in working order (i.e. horns, lights, brakes, seat belts, etc.).

### All vehicles with the driver’s view directly blocked to the rear shall be equipped with a working back up alarm. In addition, when backing down any pier or any other highly congested area, a spotter must be used.

### All vehicles will be operated with both hands free to engage the controls. This means no use of radios or cell phones when driving unless a hands free device is used.

### All personnel use seat belts provided.

### All vehicles are fitted with head and tail lights. Motorized vehicles, (except motorcycles) have a backup alarm.

## Fork Lifts

To operate a NASSCO forklift the operator must carry a current NASSCO forklift operator’s license. For all other forklifts, the operator must be trained and certified /or licensed in the proper operation of the forklift.

## Boom Lifts, Scissor Lifts and Sky Climbers

To operate or ride any NASSCO boom lift or sky climber, all personnel in the basket must have attended a High Reach or sky climber training class and be licensed by High Reach. For all other high reach equipment, the operator must be trained and/or licensed in the proper operation of the equipment to be used.

## Golf Carts

Any equipment, material or personnel to be carried in a golf cart must be kept wholly within the confines of the cart, nothing is to extend out. This is for standard golf carts and burden carriers. All burden carriers must be of the four wheel design. Passengers ride only in manufacturer provided seats.

## Bicycles

Bicycles are frequently used throughout the shipyard and are a handy tool. Bicycles are only ridden with both hands on the handlebars. Only items that fit completely inside the basket should be carried. If it is to be used after dark, it must be equipped with a headlight or flashlight clip and rear red light. No hand held light or head lamp shall be used while riding a bicycle. Bicycles must be equipped with a working bell or horn.

## Trains & Trolleys

Do not cross the railroad tracks while Gate 12 is open for the BNSF train. The train may take as long as 20 minutes. You may not cross the yellow lines on either side of the tracks until gate 12 is secured and the horn is silenced.

The trains and trolleys crossing near 28th and Harbor are an ever present hazard. Always wait until the train has started up again and passed completely. Only cross at the designated public crossing. Never cross between train cars. Violations of crossing rules are illegal and are subject to hefty fines.

## Shipyard Road Rules

All vehicles, including bicycles are subject to certain rules in the shipyard:

### The maximum speed limit is 5 miles per hour.

### Drivers may not pass under any suspended load.

### Motorized equipment, if left unattended, must be left unlocked with the keys in the ignition.

### Vehicles may not park inside of the yellow lines around the crane tracks.

### For the safety of pedestrians there are two ten minute periods during which no vehicles are allowed to move, except for emergency vehicles responding to an emergency. Bicycles may be dismounted and walked. These are the two change-of-shift times:

# 3:00 pm - 3:10 pm

# 12:30 am - 12:40 am

#  Compliance

NASSCO operations are subject to numerous regulatory and government standards. These include but are not limited to Federal OSHA, CAL/OSHA, NAVSEA Standard Items to name a few. It is your responsibility to operate within the confines of these standards.

NASSCO employs the OHSAS 18001 Safety Management system. This system allows us to effectively manage safety at NASSCO. It drives continuous improvement through assessment, guidance and improved safety performance. Frederick Harris, President assumes ultimate responsibility for OH&S and the OH&S management system.

1. Subcontractors shall immediately notify NASSCO’s Safety Department, in writing, upon receiving notice of any inspection from either United States OSHA or California OSHA representatives, of their work area at the Facilities.  In the event of such an inspection, Subcontractor’s shall permit NASSCO’s personnel to be present at any opening conference, the inspection, and any closing conference, and the Subcontractor shall provide NASSCO with copies of all correspondence, including citations, received from OSHA or Cal OSHA.

NASSCO Code of Safe Practices

This Code of Safe Practices is only a guide and represents only the most common situations and procedures. Further guidance is available in the NASSCO Safety Policies and Procedures Manual and Federal and State directives. Contact the NASSCO Safety department at (619) 544-8444 if you reqire assistance.

1. **General**
	* 1. Rules, regulations, and signs placed for the protection of personnel and equipment are obeyed.
		2. All employees shall review accident prevention instructions.
		3. All injuries are reported to the immediate supervisor promptly.
		4. No one is knowingly permitted or required to work while their ability or alertness is so impaired by fatigue, illness, or other causes that it might unnecessarily expose the employee or others to injury.
		5. Anyone known to be under the influence of drugs or intoxicating substances which impair the employee's ability to safely perform the assigned duties is not allowed on the job.
		6. Horseplay, scuffling, and all other acts which tend to have an adverse influence on the safety or well-being of the employees are prohibited.
		7. Tobacco use is prohibited in the shipyard.
		8. Running is prohibited in the yard.
		9. Crowding or pushing when entering or leaving any structure or conveyance is prohibited.
		10. Shipyard traffic rules are strictly obeyed while operating a vehicle, regardless of type.
		11. Pedestrians yield to vehicular traffic.
		12. Compressed gases are not used for purposes other than their designated uses. They are not used to clean clothing, machines, tools, empty containers of liquids, or for ventilation.
		13. Good housekeeping is maintained at all times aboard ship and on the adjacent berth or dock. Aisles and passageways in shops, warehouses, and yard areas are to be kept clear of material. Welding leads, burning hose, air hose, and other temporary lines are arranged so that they do not produce a tripping hazard.
		14. Deck openings are not covered by loose material. All openings are protected with approved hole covers or barriers so that no one can step or fall into them.
		15. All safety precautions concerning harmful and explosive gases are followed when entering tanks, voids, or compartments. If in doubt, the supervisor is notified and if necessary, the area is certified safe by a shipyard competent person prior to entry.
		16. Open flames, or other sources of ignition are not permitted in areas where a fire hazard may exist.
		17. Safety devices such as machine guards are not tampered with or bypassed.
		18. Unauthorized employees shall keep out from under suspended loads at all times. When exposure is unavoidable, only those personnel required to perform the identified tasks are permitted to be near or under the load. Exposure to overhead loads is kept to the minimum duration possible. Employees obey riggers commands and remain clear of suspended loads.
		19. Cranes are equipped with effective warning devices.
		20. Wiping cloths and oily waste are disposed of in designated containers.
		21. Air hoses are not disconnected until hose line has been bled.
		22. Employees do not handle or tamper with any electrical equipment machinery, or air or water lines in a manner not within the scope of their duties unless they have received instructions from their foreman.
		23. When lifting heavy objects, the large muscles of the leg instead of the smaller muscles of the back are used.
		24. Materials, tools, or other objects are not thrown or dropped from elevated structures.
		25. Employees cleanse thoroughly after handling hazardous substances.
		26. Gasoline is not used for cleaning purposes.
		27. No burning, welding, or other source of ignition is allowed in any enclosed tank or vessel, even if there are some openings, until it has first been determined that no possibility of explosion exists, and authority for the work is obtained.
		28. Any damage to scaffolds, ladders or other supporting structures is immediately reported to the supervisor and repaired before use.
		29. When working on a ladder, employees face the ladder and keep both hands free while climbing.
2. **TOOLS AND EQUIPMENT**
	* 1. Only appropriate tools are used for the job.
		2. All tools and equipment are maintained in good condition.
		3. Safeguards are not altered or removed from tools and equipment.
		4. Damaged tools or equipment are removed from service and tagged "DEFECTIVE."
		5. Tools are not altered by the addition of handle extensions or "cheaters."
		6. In locations where tool use is awkward, the tool shall be supported by means of a rope or similar support of adequate strength.
		7. Tools and equipment are secured, to prevent falling when working aloft.
		8. Portable electric tools are not lifted or lowered by means of the power cord. Ropes shall be used.
		9. Machines, valves, switches, turrets, elevators, etc., are checked and everyone is in the clear before such devices are put in operation.
		10. Temporary services such as air, steam, water, and electricity are not altered or tampered with.
		11. Hoses or Electric cords are not exposed to damage from vehicles.
3. **MACHINERY**
	* 1. Only authorized persons operate machinery or equipment.
		2. Loose or frayed clothing, or long hair, gloves, dangling ties, finger rings, etc., are not worn around moving machinery or other sources of entanglement.
		3. Machinery is not serviced, repaired or adjusted while in operation, nor shall oiling of moving parts be attempted, except on equipment that is designed or fitted with safeguards to protect the person performing the work.
		4. Where appropriate, NASSCO’s Lockout Tag out and Tag Plus procedures are used. Warning tags are not removed except by the person or persons placing them.
4. **STAGING**
	* 1. Properly installed and tagged staging is used at all times.
		2. Proper equipment is used for loading or unloading material or tools to or from staging.
		3. Safe access is provided to and from all staging that is available for use.
		4. Staging scaffolds, safety lines, or other barricades are not altered except by authorized employees.
5. **PERSONAL PROTECTIVE EQUIPMENT**
	* 1. Approved shoes, hard hats, eye and/or face protection, hearing protection and other personal protective equipment is worn in accordance with yard instructions.
		2. Appropriate respirators and or body protection are worn whenever materials or working conditions may create a health hazard.
		3. Approved eye and/or face protection, suitable for the conditions encountered, are worn when working near chipping, grinding, welding, or wire brushing operations, or working with chemicals or harmful substances.
		4. Safety belts and lanyards are worn where required. Employees receive training prior to use of such equipment.