

Contractor and Third Party Safety Guidelines

NASSCO is committed to conducting all operations in a manner that safeguards the health and safety of employees, contractors, and others. It is your company’s responsibility to know and comply with federal and state safety regulations applicable to work being performed. Your company is also responsible for complying with all applicable NAVSEA Standard Item requirements related to safety performance while working for NASSCO. This document summarizes these safety requirements. Entities planning to work at a NASSCO facility or jobsite are required to comply with these requirements and provide the necessary training and oversight to their employees to ensure compliance.

I. The NASSCO Safety Policy

General Dynamics NASSCO aims to be the Shipyard of Choice for securing our nation and fueling our economy. To do so, we hold a high standard for Safety.

- Our **Safety Policy:** We ensure a safe workplace for all
- Our **Safety Vision:** All accidents can be prevented.
All activities can be performed without risk or harm to people or facilities
- Our **Safety Goal:** Zero injuries
- Our **Safety Objectives:** Lead by Example
Control and Prevent Hazards
Use PPE Correctly

The NASSCO Safety Department is dedicated to the safety of all workers in NASSCO's shipyard as well as to our employees working at other facilities or Naval installations. The Total Safety Culture (TSC) is the cornerstone of NASSCO's safety philosophy. All trades, departments, and management levels work together to make NASSCO the safest shipyard in the country.

The NASSCO Total Safety Culture is a value that is never questioned, never compromised, regardless of the situation – it is simply the way we do business.



The organization chart above depicts the TSC structure at NASSCO. You will notice that this organization is built upon the foundation of employees. Because the TSC program enjoys a high degree of employee participation from those trades who actually do the work of building ships, the TSC program continues to improve safety in our workplace.

Working together, all NASSCO employees, contractors, and on-site workers have an opportunity to participate in the TSC and have a responsibility to identify unsafe conditions or at-risk behaviors and intervene to correct them. This is referred to as **“Actively Caring”**.

Total Safety Culture or TSC is a good description of exactly what its name implies. The TSC program at NASSCO encompasses all aspects of our daily work environment as it relates to safety issues. In other words, TSC provides us with a means to consider, evaluate and improve the “total” safety picture within the shipyard.

We need the support of all subcontractors and on-site workers to follow our Safety procedures, work instructions and company policies to prevent incidents and injuries from occurring.

EMERGENCY NUMBERS

<u>INCIDENT TYPE</u>	<u>NASSCO LANDLINE</u>	<u>CELL PHONE</u>
Fire or Medical	911	619-544-8777
Spill Reporting	x8401	619-544-8401
Workplace Violence	911	619-544-8777

GENERAL INFORMATION NUMBERS

<u>TYPE OF INFORMATION</u>	<u>NASSCO LANDLINE</u>	<u>CELL PHONE</u>
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

II. Scope of Responsibility

- A. Safety responsibilities for companies or individuals working within the NASSCO yard or at a NASSCO controlled job site.
- B. 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 one year and must be subsequently renewed.
- C. Each on-site manager, supervisor, foreman, and/or safety representative is responsible for the safety of those individuals working for him. They must ensure all of their employees are in full compliance with Fed/OSHA, Cal/OSHA, NAVSEA Standard Items and NASSCO Safety Rules, Regulations, Policies and Procedures.
- D. The need to warn other trades working in the vicinity of your work areas of any potential hazards that may be generated by your work activity is the responsibility of your on-site manager, supervisor, foreman, and/or safety representative.
 - 1. 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.
- E. Regular inspections of your work areas must be conducted to ensure that no hazardous conditions exist.
- F. All unsafe behaviors and conditions must be corrected immediately.
- G. It is your responsibility to notify NASSCO supervision/Safety of any unsafe condition noted in your work areas which is beyond your control to correct.
- H. NASSCO is committed to a "Total Safety Culture". Your employees are empowered and expected to take actions to correct any unsafe behaviors and conditions immediately. Actively caring dictates that any worker responds in a positive manner and corrects at risk behaviors and conditions when brought to their attention.

Copies of NASSCO Safety Rules, Regulations, Policies and Procedures are available for review at the NASSCO Safety Department.

III. Communication Requirements

- A. 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. NASSCO Safety Department must be contacted if changes in equipment, procedures and/or chemicals present new hazards to the work environment.
- B. Any accident or injury that occurs while working on a NASSCO job must be reported immediately to the NASSCO Safety Department by phone, 619-544-8444. An initial written report of the injury and investigation of the accident showing causation must be submitted to the NASSCO Safety Department within 24 hours.

IV. Emergency Reporting Procedures

EMERGENCY NUMBERS

<u>INCIDENT TYPE</u>	<u>NASSCO LANDLINE</u>	<u>CELL PHONE</u>
Fire or Medical	911	619-544-8777
Spill Reporting	x8401	619-544-8401
Workplace Violence	911	619-544-8777

A. Fire and Medical Emergencies

- 1. *Report the exact location of the fire or medical emergencies.*
Do not hang up the phone until the guard releases you.
- 2. Send someone to meet the emergency responders at the brow to guide them to the scene.

B. Alarms

- 1. When an alarm goes off, stop what you are doing and listen for the verbal message that will follow. Then do as directed.
- 2. Do not automatically try to exit the ship. Do not leave until you are told to abandon the ship. When directed to abandon ship, walk in an orderly manner to the brow and off the vessel.
- 3. After disembarking, immediately proceed to your designated muster location. Supervisors, conduct a head count of your employees. Notify NASSCO Fire Department of any missing employees. Do not return to the ship unless directed by the NASSCO Fire Department.

C. Offsite Emergencies

PROTOCOL FOR OFF-SITE MEDICAL EMERGENCIES		
(Mission Valley 1 & 2, Otay Warehouse, Tidelands Warehouse, C St.)		
SEVERITY	TIME	ACTION <i>Employee notifies Supervisor of all injuries, then:</i>
<p>NON-SERIOUS MEDICAL CONDITIONS</p> <ul style="list-style-type: none"> • All eye injuries • Muscle spasms • Sprains • Minor cuts 	<ul style="list-style-type: none"> • Every day (including holidays) • All shifts 	<ol style="list-style-type: none"> 1. Supervisor escorts employee to NASSCO Medical during business hours. During after hours, weekends, and holidays, supervisor notifies NASSCO Security. Security tones out/dispatches NASSCO Safety and NASSCO Fire upon employee’s arrival at Gate 6. 2. <i>Foreign body in eye injuries ONLY</i> – Flush eyes with Portable/Fixed eyewash station, (MUST REPORT TO NASSCO MEDICAL OR NASSCO FIRE DEPT. IMMEDIATELY AFTER FLUSHING). If employee realizes foreign body in eye after shift ends, employee must notify supervisor and NASSCO Security. Security will tone out/dispatch NASSCO Safety, Fire and Medical). Injured employee will come in to be seen by NASSCO Medical during normal business hours or NASSCO Fire after hours. <i>NASSCO Fire may refer employee go to nearest Health Provider.</i> 3. If applicable, supervisor secures accident scene until NASSCO Safety arrives. 4. Supervisor photographs existing conditions of the environment ASAP. 5. Supervisor notifies Safety, General Supervisor, and Manager. 6. Supervisor notifies Labor Provider’s Administrator (Temporary Labor employees ONLY). 7. Supervisor identifies any potential witnesses. Supervisor records name & badge number of witnesses on Witness Statement Form. 8. Supervisors complete initial Investigation Report and submit to Safety Dept.
<p>SERIOUS MEDICAL CONDITIONS</p> <ul style="list-style-type: none"> • Chest pain or discomfort • Difficulty breathing • Electrical shock • Serious cuts • Loss of consciousness • Altered level of consciousness • Allergic reaction • Chemical reaction 	<ul style="list-style-type: none"> • Every day (including holidays) • All shifts 	<ol style="list-style-type: none"> 1. Supervisor/employee dials 911 from cell phone. 2. Supervisor/employee notifies NASSCO Security (Security will notify Safety, Medical and Fire Dept. via mass media). 3. Supervisor notifies Safety, General Supervisor and Manager. 4. If injured employee’s condition allows, interview them immediately. 5. If applicable, Supervisor secures accident scene until NASSCO Safety arrives. 6. Supervisor photographs existing conditions of the environment ASAP. 7. Supervisor notifies Labor Provider’s Administrator (Temporary Labor employees ONLY). 8. Supervisor identifies any potential witnesses. Supervisor records name & badge numbers of witnesses on Witness Statement Form 9. Supervisor completes Initial Investigation Report and submit to Safety Dept.

REPAIR PROTOCOL FOR OFF-SITE MEDICAL EMERGENCIES (NAVAL BASES – 32 nd Street, North Island, BAE, CMSD/HII, Point Loma)		
SEVERITY	EXAMPLE	ACTION <i>Employee notifies Supervisor of all injuries, then:</i>
NON-SERIOUS MEDICAL ISSUE * 1st Shift * Weekdays	* Foreign Body in Eye * Muscle Spasms * Sprains * Minor Cuts * Cumulative Trauma Complaints	Supervisor arranges for transport to NASSCO Medical: Supervisor notifies Ship's Management & NASSCO Safety Dept. as soon as possible
		SUB-CONTRACTED/TEMPORARY LABOR: Supervisor arrange for Transport to South Coast Medical Clinic: Supervisor notifies Labor Provider's Administrator. Supervisor notifies Ship's Management & NASSCO Safety as soon as possible.
SERIOUS MEDICAL ISSUES * All Shifts * Weekdays * Weekends * Holidays	* Chest Pains * Broken Limbs * Electrical Shock * Serious Cuts or Trauma	32nd STREET or NORTH ISLAND: Supervisor/employee must notify the Ship's Quarterdeck Call Federal Emergency Number: (619) 524-2030 Supervisor notifies NASSCO Security: (619) 544-8401 Supervisor notifies the SWRMC Duty Officer: (619) 381-6632 North Island Supervisor notifies Newport News Safety (Barry Haskins): (619) 520-2967 Sub-Contracted/Temporary Labor: Contact Administrator
		BAE or CMSD/HII: Supervisor notifies the Ship's Quarterdeck Supervisor/employee Call 911 from cell phone or Supervisor Dials 9-911 from BAE yard line (Notify BAE's Main Gate) or use Red Phones Supervisor Dials 911 from CMSD/HII yard line (Notify CMSD/HII's Security) Supervisor notifies NASSCO Security: (619) 544-8401 Supervisor notifies the SWRMC Duty Officer: (619) 381-6632
OFF-SHIFT NON-SERIOUS MEDICAL ISSUE * 2nd & 3rd Shifts * Weekends * Holidays	* Foreign Body in Eye * Muscle Spasms * Sprains * Minor Cuts * Cumulative Trauma Complaints	Supervisor contacts NASSCO Security Transport to NASSCO Gate 6 for assessment by NASSCO Fire Dept. If further medical attention is required, NASSCO Security will specify which facility the employee should report to.
SUB-CONTRACTED/TEMPORARY LABOR: Supervisor/employee arranges transport to South Coast Medical Clinic: Supervisor/employee notifies Labor Provider's Administrator or arranges transport from clinic if administrator cannot be reached.		
** NOTE: ALL INJURIES MUST BE REPORTED TO SHIP'S MANAGEMENT & SAFETY AS SOON AS POSSIBLE.		
** South Coast Medical Clinic: 408 W 8th St., National City, Ca. (619) 474-8666		
** BAE's Address: 2205 East Belt St. / BAE's Main Gate: x3333 / BAE's Medical: x2222 (From a BAE Yard Phone)		
** CMSD/HII's Address: 1995 Bayfront St. / CMSD/HII's Security: (619) 234-8851 ext. 217 or 215		

V. Environmental Compliance

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

- A. Air pollution,
- B. Water/Bay pollution,
- C. Sewers,
- D. Hazardous materials use, generation, control, and disposal.
- E. Environmental Engineering has a separate vetting process for yard access that can be found on NASSCO's website <https://nassco.com/suppliers/doing-business-with-us/environmental-procedures/> Direct questions to 619-544-7506 or envreports@nassco.com

VI. Chemical Safety (Hazard Communication)

- A. All employers must ensure that Safety Data Sheets (SDS) are immediately available to the employees using hazardous substances in their work.
- B. For any chemicals required for your project the NASSCO Safety Department must be provided with a copy of the SDS and a completed SDS Review Form, which indicates how the chemical will be used. These must be submitted to and approved by the Safety and by the Environmental Engineering Departments before the chemical enters the shipyard or is used on any NASSCO project.
 - 1. Each different department or different type of end user within the same department must submit separate SDS Review Forms.
 - 2. After review by the Safety and the Environmental Engineering Departments, The completed forms will be returned to the initiator along with a Safety Card if necessary which contains information from Safety Department related to the chemical's health hazards, personal protective equipment requirements, engineering control requirements, etc.
- C. As part of hazard communication training the on-site manager, supervisor, foreman, and/or safety representative must ensure that workers are aware of the hazardous properties of the substances they work with and how to adequately control these hazards. This includes the use of appropriate PPE when required.
- D. 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.
- E. All of NASSCO's Safety Data Sheets are available from the Safety Department or from a supervisor who can obtain them 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 them by providing the names of the manufacturer and the product.

VII. Hazardous Materials 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 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, like solvents, 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 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.

VIII. Suspect Asbestos-Containing Materials (ACM)

Your company may not perform asbestos removal or disruption at any NASSCO facility or vessel where NASSCO is the prime contractor, without first notifying and obtaining approval from the Environmental Engineering Department. Notification is also required prior to any building demolition or renovation, whether asbestos is present or not. For more information, contact the Environmental Department at 619-544-7506.

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.

Common suspect ACM include surfacing/ flooring materials, thermal insulation, roofing/ siding, acoustical materials, sealing/gaskets, brake pads, and clutch plates.

IX. Personal Protective Equipment (PPE)

A. Hard Hats

Hard 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.

- B. **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.

1. Metal hard hats shall not be worn. At a minimum, hard hats must comply with ANSI Standards Z89.1.
2. "Cowboy" style or hard hats with an upturned brim or crown concavity are prohibited.
3. The suspension liner must be worn with the adjusting mechanism on the back of the head.

C. Safety glasses with Side Shields

Safety 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.

- D. 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.

1. *Safety glasses with side shields must conform to ANSI Z87.1 standards.*
2. Prescription eye glass wearers must wear eye protection over the prescription lenses or obtain prescription safety glasses with side shields.
3. Individuals may obtain prescription safety glasses through the NASSCO Optician at their own cost. The Optician is located in Building 15 Thursdays from 7:30 am to 4:00 pm. A current prescription that is less than a year old is required.
4. Shaded lenses may not be worn below decks or inside of any vessel, in offices or after sunset.
5. 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 including working overhead.
6. Contact lenses are not to be worn in any production area.

E. Clothing

1. Shirts must cover the entire torso and have at least a 1/4 sleeve. No tank tops or muscle shirts allowed.
2. Pants 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.
3. Employees performing hot work are not to wear shirts or pants that contain man-made fibers such as nylon, rayon or polyester.
4. All outer clothing must be free of frays, holes, rips, or tears.

F. Safety shoes

1. Safety shoe must have an 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.
2. Access to blocks with exposed pins on deck requires sole inserts in the shoes to protect against punctures. Puncture resistant boots may also be worn.
3. The following shoes are strictly prohibited in production areas:
 - a) Tennis shoes, open toe shoes, sandals
 - b) Shoes with exposed, mesh-type inserts or tongues
 - c) High-heeled shoes (i.e. those with heels greater than 1¾")

G. Safety Harness with Lanyard

1. 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.
2. When operating a boom lift, the lanyard must be hooked to the basket.
3. When operating a sky climber, the lanyard must be hooked to a rope grab that is connected to a life line.
4. When climbing a mast, the harness must be equipped with the rose collar climbing device for attachment to the center post.

H. Face Shield

1. 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.

I. Gloves

1. Leather or cloth gloves should be worn whenever the employee is handling material that is rough or abrasive.
2. Leather gloves are used when handling hot or potentially hot metal.
3. Appropriate chemical protective gloves are to be worn when handling chemicals.
4. Leather gauntlets are required when performing welding and burning operations.
5. Anti-vibration gloves should be worn during work involving high vibrating hand tools.

J. Hearing Protection

1. Hearing protectors must be worn in all production areas.
2. Earmuffs are used in conjunction with ear plugs for extremely loud work such as abrasive blasting or deck grinding.

K. Welding Hood

1. 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).
2. 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.

L. Respirator

1. 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.
2. 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.
3. Reusable respirators must be stored in a reseal-able plastic bag when not being worn.
4. 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.

X. Fire Protection Requirements

- A. All fire watches must be annually certified in accordance with OSHA 29 CFR 1915 Subpart P. All fire watches must be equipped with a fully charged ABC or carbon dioxide fire extinguisher.
- B. No flammable or combustible material containers may be left open. Flammable liquid containers must be equipped with a flash protector screen in the nozzle and have an automatic self-closing lid.
- C. All material use 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.
- D. Chemicals being stored shall be placed on pallets and inside proper containment.
- E. Charged fuel gas hoses may not be left unattended for more than 15 minutes in enclosed spaces. 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 to be left unattended in confined spaces. On US Navy Repair contracts, both shield and fuel gas hoses are never to be left unattended in confined spaces.
- F. 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,
 - is not protected with flameproof covers,
 - is not shielded with metal or fire-resistant guards or curtains.

Remember these steps when preparing prior to doing hot work, hot workers must inspect the area and ensure the above conditions are met to do hot work.

- G. Hot workers shall insure that the following conditions are met prior to doing hot work:
 - Inspect the area for material and equipment that can be damaged or ignited by the hot work.
 - Remove combustibles 35 feet from the hot work area.
 - If combustibles cannot be removed protect them from the sparks with “A” cloth.
 - Use “A” cloth or other guards to contain the sparks and prevent them from making contact.
 - If material or objects cannot be removed or protected, a trained fire watch with a fully charged extinguisher must be posted.
- H. 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 clearly identified with the company name and the badge number of the employee using the hose.
- I. On board U.S. Navy vessels, fire zone boundary 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 **6 ft or less from the hatch or opening.**
 - 2. Hoses will have non-spill fittings or manual valves 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.
- J. On board U.S. Navy vessels, lines and leads can only be tied up with non-combustible wire.
- K. Smoking is prohibited in NASSCO.

XI. Additional Hot Work Requirements for Repair Contracts

- A. On board U.S. Navy vessels 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 Item 009-07 as applied to your contract.
1. The Hot Work Request must be signed off by NASSCO QA/Safety and the ship's representative as applicable.
 2. 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.
 3. Hot work is not authorized until this inspection and document verification has been accomplished.
- B. Prior to commencing hot work the hot worker and PAI 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. 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.
- C. 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.
1. The request must be submitted to the NASSCO Safety Department at least one (1) day in advance of the work.
 2. The form will be returned to the initiator indicating the required safety controls.
 3. Shielded Metal Arc Welding (SMAW or "Stick" welding) using stainless steel consumables is prohibited in the NASSCO shipyard.

NASSCO Safety Department will notify the South West Regional Maintenance Center.

XII. Identification of Air, Gas and Weld Leads

- A. All air/gas/water hoses used at NASSCO are to be maintained in good repair.
- B. All welding cables shall not have repairs of any kind within 10 feet of the stinger. No make shift repairs are authorized. All repairs must return cables to the original insulation integrity.
- C. 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 in a way that requires the hose to be disconnected to retrieve the washer. This washer must identify the company and the worker.
- D. 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.
- E. All fuel and shield gas hoses must be disconnected and the washers recovered at the end of each shift or when not in use. Washers are not to be loaned or borrowed.
- F. All fuel gas hoses in confined spaces will be pulled back out of spaces on all breaks, lunch time and at the end of each shift (see section IX of this document). On US Navy Repair contracts, all temporary services shall be positively identified with durable unique markings that include maintenance activity name, service type, location, and shore side shut-off points. Tags shall be located (at a minimum) at the source, point of entry aboard ship, at each connection point (including quick disconnects), and termination point.
- G. 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.

XIII. Local Exhaust Ventilation Procedures and Requirements

- A. Whenever any airborne contaminant is being generated, local ventilation must be provided to exhaust the contaminant. Exhaust ducts will be under negative pressure, so that damage to the duct will not result in contamination of spaces.
- B. If your work in enclosed and confined spaces generates fumes, vapors, dusts or other contaminants proper use of local exhaust ventilation is required. The exhaust duct must be positioned to adequately remove contaminants at the source and be discharged to a safe location.
- C. Ducting placed in tanks for ventilation is not to be removed or used elsewhere.
- D. Do not damage or splice into the side of ventilation ducting. Connect ducting only to the correct sized manifold opening.
- E. Only fire retardant ducting and tape shall be used for ventilation purposes.
- F. Ducting used for painting operations shall not be used for hot work.

XIV. 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 NASSCO 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.
 - 1. Covers are constructed of $\frac{3}{4}$ 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.
 - 2. 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.
 - 3. Guardrails are constructed in accordance with 29 CFR 1915.71 (j).
- D. 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.
- E. Open manholes 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 is made impractical by the work in progress.

XV. Confined Space Procedures

- A. **Definition:** A confined space 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.
- B. **At NASSCO these spaces are identified by a Confined Space Log posted at the access and/or a Marine Chemist Certificate as required.**
 - 1. 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.

XVI. 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.
- D. 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.

XVII. Machine Guarding and Tool Safety

Tools and their guarding shall not be modified or removed. Inspect to make sure all tools are in good working condition before use.

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

XVIII. Lock Out / Tag Out

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

- 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.
- 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 initiate and control the tag out.
- Lock Out/Tag Out (LOTO) on the land side of the shipyard is initiated by a Tag Originator and accomplished using both a locking device and tag. See Safety Procedure Manual Work Instruction 336.
- Any machinery or equipment that is being serviced or repaired must be locked and tagged out to a Zero Energy State.
- NEVER** tamper with LOTO equipment.

XIX. Rigging Requirements

- 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. Only equipment in good condition and proper working order may 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.
- D. Know the weight of the load before you begin. Never over load a piece of rigging equipment. Do not use an extension, or “cheater bar”, on any come-a-long.
- E. Rigging equipment may not be used beyond the expiration date where identified by a date tag.
- F. Do not work or pass under a suspended load.

XX. Overhead Crane Lifts

- A. 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.
- B. Obey the directions of the rigger.
- C. 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.

XXI. 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.

A. Straight ladders

A straight ladder must be secured to prevent 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. Maintain three points of contact at all times. 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.

B. 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 beyond the side rails of the ladder (remember the belt buckle rule: keep your belt buckle within the side rails 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.

XXII. Housekeeping

Practicing good housekeeping habits is critical to our safety at NASSCO. Good housekeeping is a leading indicator of an effective safety program. Poor housekeeping contributes to accidents and fires. Good housekeeping includes:

1. Pick up material, trash and debris and place them into the proper containers.
2. Route lines, leads, and hoses behind ladders and out of walkways.

3. Immediately clean up all spills. Spills greater than 1 quart on land, and spills of any size in the water must be reported immediately by calling Security at 619-544-8401.
4. Eat only in designated areas and throw your trash in the trash cans. Eating is prohibited on US Navy ships.
5. Do not bring newspapers and magazines on board ships and industrial work areas.
6. Do not start any hot work operation until all trash, combustibles (including jackets and unprotected tool bags), or flammable liquids and materials are removed from your area.

XXIII. 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. Vehicles have the right of way in the shipyard.

A. Vehicle Safety Equipment

1. All vehicle safety equipment is required to be in working order (i.e. horns, lights, brakes, seat belts, etc.).
2. All vehicles with the driver's view directly blocked to the rear are equipped with a working back up alarm. In addition, when backing down any pier or any other highly congested area, a spotter is used.
3. All vehicles are 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.
4. All personnel use equipped seat belts.
5. All vehicles are fitted with head and tail lights. Motorized vehicles, (except motorcycles) have a backup alarm.

B. Fork Lifts

To operate a NASSCO forklift a current NASSCO forklift operator's license is required. For all forklifts provided by outside companies, the operator must be trained and certified or licensed in the proper operation of the forklift.

C. Boom Lifts, Scissor Lifts and Sky Climbers

To operate or ride any NASSCO boom lift or sky climber, the operator and all occupants must be licensed by High Reach for boom lifts and NASSCO for sky climbers. For all other high reach equipment, the operator must be trained and licensed in the proper operation of the equipment to be used.

D. 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.

E. Bicycles

Bicycles are only ridden with both hands on the handlebars. Only items that fit completely inside the basket should be carried. If ridden between dusk and dawn, bicycles must be equipped with headlights and rear red lights. No hand held lights or head lamps are used while riding bicycles.

Bicycles are equipped with a working bell or horn, chain guards, foot break system and are maintained in good repair.

F. Trains & Trolleys

Do not cross the railroad tracks while Gate 12 is open for the 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 trolley has left and the crossing gate is up. Only cross at the designated public crossing. Never cross between train cars. Violations of crossing rules are illegal and are subject to hefty fines.

G. Shipyard Road Rules

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

1. The maximum speed limit is 5 miles per hour.
2. Drivers may not pass under any suspended load.
3. Motorized equipment, if left unattended, must be left unlocked with the keys in the ignition.
4. Vehicles may not park inside of the yellow lines around the crane tracks.
5. 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 are dismounted and walked. These are the two change-of-shift times:

3:00 pm - 3:10 pm

12:30 am - 12:40 am

5. Pedestrians must use green walkways or walk to the side of the roadways.

XXIV. Workplace Violence

1. NASSCO has established strict zero tolerance guidelines that prohibit any employee or onsite worker from threatening or committing any act of violence in the workplace. Workplace conduct that is intended to be, or is perceived as threatening or harmful to people or property is prohibited.
2. Employees and on-site workers are required to report violations of this policy and any other conduct in the workplace that might be suspicious or dangerous. This includes threats of workplace violence posed by other workers, customers, or other non-employees.
3. Employees and on-site workers who become aware of an imminent act of workplace violence, a threat, or actual violence, shall immediately call 911 from a NASSCO inside line or (619) 544-8777 from a cell phone.
4. On-duty Security personnel will receive and evaluate the initial report and will initiate appropriate response to credible threats of violence with actions commensurate with the reported hazard. Depending on the situation, Security personnel may respond directly or may contact outside law enforcement agencies. Depending on the nature of the incident, Security may utilize the public address system or other emergency communication methods to alert

personnel of the incident and locations, and may issue instructions to evacuate or shelter in place.

5. NASSCO will investigate all workplace violence incidents and take appropriate action to correct identified hazards in a timely manner, in accordance with its Workplace Violence Prevention Plan. Contact NASSCO's Safety Department at 619-544-8444 for more information or to obtain a copy of the plan.

XXV. 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.

- A. NASSCO Safety Management system meets the ISO 45001 standard. This system allows us to effectively manage safety at NASSCO. It drives continuous improvement through assessment, guidance and improved safety performance. Safety is everyone's responsibility.
- B. Subcontractors shall immediately notify NASSCO's Safety Department, in writing, upon receiving notice of any inspection from either Federal OSHA or CAL/OSHA representatives, of their work area at any NASSCO facilities or prime contracts. In the event of such an inspection, subcontractors shall permit NASSCO's personnel to be present at the opening conference, the inspection, and the closing conference. Subcontractors shall provide NASSCO with copies of all correspondence, including citations, received from Fed OSHA or CAL/OSHA.
- C. Failure to comply with applicable safety rules and regulations and/or NASSCO safety policies may result in your company being issued a Corrective Action Request (ECAR) or revocation of facility access. CARs require a full root cause analysis of why the noncompliance occurred as well as a corrective action plan to prevent recurrence of a similar noncompliance.

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 require assistance.

A. 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.

B. TOOLS AND EQUIPMENT

30. Only appropriate tools are used for the job.
31. All tools and equipment are maintained in good condition.
32. Safeguards are not altered or removed from tools and equipment.
33. Damaged tools or equipment are removed from service and tagged "DEFECTIVE."
34. Tools are not altered by the addition of handle extensions or "cheaters."
35. In locations where tool use is awkward, the tool shall be supported by means of a rope or similar support of adequate strength.
36. Tools and equipment are secured, to prevent falling when working aloft.
37. Portable electric tools are not lifted or lowered by means of the power cord. Ropes shall be used.
38. Machines, valves, switches, turrets, elevators, etc., are checked and everyone is in the clear before such devices are put in operation.
39. Temporary services such as air, steam, water, and electricity are not altered or tampered with.
40. Hoses or Electric cords are not exposed to damage from vehicles.

C. MACHINERY

41. Only authorized persons operate machinery or equipment.
42. Loose or frayed clothing, or long hair, gloves, dangling ties, finger rings, etc., are not worn around moving machinery or other sources of entanglement.

43. 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.
44. 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.

C. STAGING

45. Properly installed and tagged staging is used at all times.
46. Proper equipment is used for loading or unloading material or tools to or from staging.
47. Safe access is provided to and from all staging that is available for use.
48. Staging scaffolds, safety lines, or other barricades are not altered except by authorized employees.

D. PERSONAL PROTECTIVE EQUIPMENT

49. Approved shoes, hard hats, eye and/or face protection, hearing protection and other personal protective equipment is worn in accordance with yard instructions.
50. Appropriate respirators and or body protection are worn whenever materials or working conditions may create a health hazard.
51. 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.
52. Safety belts and lanyards are worn where required. Employees receive training prior to use of such equipment.