

**Aug 2021
REV P**



Safety Requirements for Contractors and Subcontractors

**NUWC Division Keyport Occupational Safety & Health Branch
360-396-2462**



Safety Requirements for Contractors and Subcontractors

Revision Status

REVISION	ISSUE DATE	BRIEF DESCRIPTION OF CHANGE
NR	5 Nov 02	Initial Release
A	28 Jan 02	Electrical Safety & Lockout/Tagout changed 4 th Para.
B	12 Sep 06	Added Ergonomics assessment requirements, updated purpose and application sections, update phone numbers
C	25 Oct 06	Updated Asbestos section by adding Table 1. Added POCs
D	20 Nov 06	Updated Asbestos section by adding Tables 2-4
E	26 Mar 08	Updated Table 1 removing buildings transferred to FISC. Updated Asbestos Program manager phone number. Added verbiage defining blended workforce.
F	29 Jan 09	Clarified the Government's role in suspending or directing contractor operations under emergency conditions. Removed buildings from Table 1 that are totally Region responsibility and corrected typo (bldg. 489 vice 498)
G	23 Nov 09	Undated POC and phone for Hazardous Material Control and Management (HMC&M)
H	2 Apr 10	Included a list of buildings with fall protection incorporated.
I	14 May 10	Incorporated OSHA Voluntary Protection Program (VPP) elements to inform contractors of additional safety measures and data requirements required by VPP.
J	12 Apr 11	Created separate section for Task Order Manager roles and responsibilities. Clarified Contractors responsibilities for PPE, Toxic Metals, Explosives Safety, Hazardous Atmospheres, and for submitting annual VPP metric data for in-house contractors. Added sections for required safety programs, required meetings, safety and health professional support, required inspections, appropriate work attire, and ionizing radiation.
K	12 Dec 11	Expanded requirements and responsibilities in Hazard Communication section.
L	8 June 12	Updated and expanded contractor and Task Order Manager requirements for weight handling operations and evolutions. Added to Electrical Systems to the Specific Program Requirements section. Updated VPP related contractor-reporting requirements. Repaginated the document.
M	25 Sep 13	Clarified contractor VPP reporting requirements at remote operating sites and Detachments. Added collateral duty/designated safety representative roles for remote operating sites and Detachments throughout the document. Added Electrical Safety as a Fatality Prevention Program in Section 2.
N	1 Dec14	Updated roof fall protection systems
O	15 Apr 21	Added Navy Contractor Definition (page 23). Added Operational Risk Management Definition (page 23). Added General Statement and general information statement on ORM (page 10). Added General Statement on

SAFETY REQUIREMENTS FOR CONTRACTORS AND SUBCONTRACTORS

		Training (page 10). Changed MSDS to SDS throughout document. Removed VPP Forward statement. Corrected table of contents numbering. Updated various POC and site manager phone numbers. Added GHS and HAZCOM statement to HAZCOM Section. Corrected numerous typos. Removed VPP statement, section 2. Added electrical safety program title in fatality prevention program paragraph. Updated C/171 to C/1024. Added Acronym section. Expanded explosives section. Added references section. Updated NAVFAC P-307 references. Changed Task Order Manager to COR, TCOP and Contractor Officer throughout document. Expanded table of contents for section 2. Added Lithium Ion Batteries & Pressurized systems sections. Expanded table of contents for section 2. Revised and clarified two separate weight-handling programs managed by NUWC Division Keyport, separated into Afloat and Ashore requirements, compliance with each program (page 24 through 30).
P	31 Aug 21	Added clarification of Navy radiation safety requirements, contractors must not use yellow plastic bags or yellow plastic sheeting detailed explanation (page 36 and 37).

References and regulations include, but are not limited to:

- Title 29 of the Code of Federal Regulations (CFR) Part 1910, "Occupational Safety and Health Administration (OSHA) Standards for General Industry."
- Title 29 CFR Part 1926, "Occupational Safety and Health Administration (OSHA) Standards for the Construction Industry."
- DoD 4145.26-M, "DoD Contractor's Safety Manual for Ammunition and Explosives."
- EM385-1-1 (US Army Corps of Engineers Safety and Health requirements Manual)
- NAVSEA OP 5, "Ammunition and Explosives Safety ASHORE."
- OPNAVINST 8023.24 (series), "Navy Personnel Ammunition and Explosives Handling Qualification and Certification Program."
- OPNAVINST 3500.39 (series) "Operational Risk Management"
- NAVFAC P-307, "Weight Handling and Program Management"
- NAVSEA OP 2173 Volume 1, "Approved Handling Equipment for Weapons and Explosives"
- SW023-AH-WHM-010, "Handling Ammunition and Explosives with Industrial Materials Handling Equipment (MHE)"
- Naval Ships Technical Manual (NSTM) Chapter 589 Cranes, S9086-T4-STM-010
- Naval Undersea Warfare Center (NUWC) Division Keyport Instruction 8020.9, "Development and Approval Of Locally Developed Handling Equipment, Materials Handling Equipment, and Weight Handling Equipment"
- Naval Undersea Warfare Center (NUWC) Division Keyport Instruction 11450.2, "Control and Use Of Handling Equipment"

FOREWORD

Naval Undersea Warfare Center (NUWC) Division Keyport is committed to maintaining a safe workplace environment for government employees, embedded contractor employees, and general contractors performing work in all departments and on all detachments and remote operating sites. NUWC Division, Keyport and its related locations provide a variety of industrial support operations for the Navy that required adherence to Naval Sea Systems Command (NAVSEA), Federal and state safety requirements.

Contractors/Subcontractors shall:

- Provide a safe and healthful work environment for their employees.
- Comply with all Occupational Safety and Health Administration (OSHA) and State standards that apply to the work performed.
- Train employees in relevant hazards, hazard control methods including personal protective equipment (PPE), fire/emergency procedures, and employee rights under the Occupational Safety and Health Administration (OSHA).
- Require their employees to work safely, follow applicable safety rules, standards, regulations, and contract provisions, and take meaningful and effective action to hold employees accountable for noncompliance.
- Review worksites daily to identify existing workplace hazards and ensure employees are following prescribed safety procedures. Where hazards are found, either promptly correct them or implement interim controls to protect employees until they are corrected.
- Record and report all employee injuries as required by 29 CFR Part 1904, "Recording and Reporting Occupational Injuries and Illnesses," and applicable state OSHA requirements.
- Notify the NUWC Division, Keyport Safety Office (or the designated safety representative for work performed at remote sites such as Guam, Hawaii, San Diego, and Hawthorne) as soon as practicable upon determination that an OSHA Recordable injury, as defined by 29 CFR Part 1904, "Recording and Reporting Occupational Injuries and Illnesses," has occurred during the performance of work at NUWC Division, Keyport.
- Make their employees available for training on Emergency Action Plans within 5 days of reporting to a blended workforce location.
- Follow the posted provisions of the building's Emergency Action Plan (EAP) for any mishap, incident, or emergency situation.
- Take aggressive action when notified of safety problems, including removing employee(s) and/or equipment from NUWC Division, Keyport, or suspending work (including subcontractor activities) pending satisfactory resolution of said safety problems.
- Comply with all Navy and NUWC Division, Keyport explosives safety policies and directives when performing work in explosives operating buildings and work areas.

SAFETY REQUIREMENTS FOR CONTRACTORS AND SUBCONTRACTORS

- Establish explosives handling personnel qualification and certification program when performing services involving ammunition and explosive materials on behalf of NUWC Division, Keyport.
- Maintain and provide to the government first-line supervisor formal written certification of the qualifications of those personnel authorized to handle or physically interact with ammunition and explosives at NUWC Division, Keyport.
- Comply with NAVFAC P-307, NSTM 589 "Weight Handling Program Management," and/or 5100.33 and other NUWC Division, Keyport weight handling safety policies and directives when performing work while using cranes, multi-purpose hoisting machines, material handling equipment (forklifts), construction equipment when used like cranes to lift suspended loads, and any associated rigging equipment.

Contractor and Subcontractor Employees shall:

- Comply with safety rules, standards, regulations, postings, boundaries, and instructions of competent safety, health, and emergency response officials.
- Report unsafe conditions and safety hazards to their supervisor and local area Contracting Officer representative, contractor lead, or area program manager.
- Report all on-the-job injuries in accordance with company policy.
- Mentor co-workers in safety and health.
- Locate and review the EAP posted in any facility in which they work, and promptly evacuate to the designated muster point in the event of a fire/emergency alarm.

Potential hazards at NUWC Division, Keyport will vary with the work being performed and geographic location of the worksite. In general, hazards will typically consist of:

- | | | |
|-------------------------------------|---------------------------------------|---|
| • noise exposure, | • reproductive hazards, | • weight handling evolutions using cranes, |
| • eye/sight/foot hazards, | • falls from heights, | • ionizing radiation equipment and operations, |
| • ergonomic hazards, | • confined spaces, | • shipboard hazards for range and test support personnel, |
| • slips/trips/falls, | • radio frequency, | • lasers |
| • tool/equipment hazards, | • radiation, | |
| • hazardous materials usage/spills, | • industrial machinery and equipment, | |
| • explosives, | • compressed/cryogenic gases, | |
| | • electrical hazards | |

Each contractor will make a job-specific determination of the potential hazards of the work to be performed; ensure controls are implemented as needed to protect their employees; train employees on the hazards and controls; and collect, evaluate, and communicate personnel exposure data (e.g. noise, chemical exposures, toxic metals exposures, etc.), as required. With the exception of contracted support for repair, maintenance, disassembly, and assembly of ordnance, all PPE required to protect contract employees from workplace hazards is solely the responsibility of the contractor. As such, the contractor is responsible to provide, maintain, identify, and separately store their PPE from government issued PPE.

Table of Contents

SECTION 1	1
INTRODUCTION	1
NUWC Safety Information	1
Purpose	1
Application	2
Scope	2
GENERAL REQUIREMENTS	2
Contractor Responsibilities	4
Certification Requirements	5
Required Safety Programs	5
Required Meetings	5
Safety and Health Professional Support	5
Required Inspections	6
Mishap Investigations and Emergency Situations	6
Ergonomics	7
Control of Fugitive Emissions	7
Accidental Spills and Releases and other Emergencies	8
Other Potential Safety Hazards	10
Appropriate Work Attire	10
ORM	11
Occupational Risk Management (ORM)	11
Training	11
SPECIFIC PROGRAM REQUIREMENTS	11
Asbestos and Suspect Asbestos Containing Building Materials	11
Lead-containing Building Materials, Toxic Metals, and Operations	
Generating Hazardous Atmospheres	13
Confined Spaces	14
Hazard Communication	14
Energy Control (Lockout/Tagout)	16
Electrical Systems ⁶	16
Pressurized Systems	17
Lithium Ion Batteries	18
Trenching and Excavations	19
Hot Work	20
Fall Protection	20

SAFETY REQUIREMENTS FOR CONTRACTORS AND SUBCONTRACTORS

Explosives/Ordnance	22
Weight Handling Operations and Evolutions	24
Weight Handling Evolutions – Afloat.....	24
Weight Handling Evolutions – Ashore.....	25
Ionizing Radiation	30
WORK SITE INSPECTIONS	30
POINTS OF CONTACT.....	31
DEFINITIONS	33
ACRONYMS.....	34
 SECTION 2	 35
 Contracting Officer's Representative (COR) and Technical Points of Contact (TPOCs) Roles and Responsibilities	 35
General Requirements	35
Radiation	36
Asbestos	37
Abrasive Blasting	38
Fatality Prevention Programs	39
Confined Space	39
Weight Handling	39
Fall Protection	41
Explosive Operating Buildings	41
Industrial Ventilation	41
Embedded Contractor Employees	42
Contract Deliverables	43
 APPENDIX A	 i

SAFETY REQUIREMENTS FOR CONTRACTORS AND SUBCONTRACTORS

This page left intentionally blank.

Section 1

This section sets forth requirements for contractors. It specifically addresses contractor responsibilities, certification requirements, safety programs, required meetings, safety and health professional support, inspection requirements, accident and incident investigating and reporting, annual summary reports, training requirements, and dismissal of employees who refuse to comply with occupational safety and health requirements. This section also provides general information on the role of the NUWC Division, Keyport Safety Office and identifies the principal government points of contact.

Introduction

NUWC Division, Keyport Safety Information

The mission of the NUWC Division, Keyport Safety Office is to:

- Provide a safe and healthful living, learning, and working environment for every member of the NUWC Division, Keyport community by assuring safe work practices through educating, training, and assisting individuals and departments.
- Help individuals and departments achieve safety compliance with all state and federal health and safety regulations and local policies as economically as possible.
- Act as liaison with external regulatory agencies, and to monitor NUWC Division, Keyport compliance with mandatory health and safety standards where necessary.
- Provide professional safety and occupational health services to the Contracting Officers, CORs, and technical points of contact (TPOCs) and his/her support team.

Note: The local Safety Office and designated safety representatives are prohibited by Navy Policy from assuming a regulatory oversight role relative to contractor safety activities and performance. Instruction to stop work-related activities will only be issued to contractors by government personnel when there is an immediate life-threatening danger or a likelihood of damaging government property.

Purpose

Safety Requirements for Contractors and Subcontractors was written to ensure the safety of all personnel who work at NUWC Keyport. This document is also intended as a guide for those embedded contractors providing technical, administrative, production, industrial, and supply support to NUWC Division, Keyport. Every contractor is expected to take steps as necessary to protect the safety and health of their employees, as well as NUWC Division, Keyport personnel and visitors during the performance of their work. Each contractor that coordinates the work of subcontractors will ensure that they adhere to the requirements outlined herein.

SAFETY REQUIREMENTS FOR CONTRACTORS AND SUBCONTRACTORS

Special Considerations for an Embedded Contractor Workforce: A blended workforce is one in which contractor employees work side-by-side with federal employees, or as part of a production team. In these situations, it is essential to remember that although these employees may look and act like federal employees, they are not. The contractor, not the government, is solely responsible for ensuring the health and safety of embedded contractor employees.

They will not receive equipment or services from the Keyport Safety Office or NUWC Division; Keyport designated safety representatives at the detachments and remote operating sites. The contractor is responsible for their employee's safety and health, shall comply with Federal and state OSHA regulations, and maintain an active accident prevention program that complies with Federal and state requirements. The contractor will have a safety bulletin board posted in a common area that provides points of contact for safety and health issues, as well as the Summary of Work-Related Injuries and Illnesses (OSHA form 300A) and the Job Safety and Health (OSHA form 3165) federal posters as required by OSHA. Applicable regulations include 29 Code of Federal Regulations (CFR) Part 1910, "Occupational Safety and Health Standards," Part 1925, "Safety and Health Standards for Federal Service Contracts," and Part 1926, "Safety and Health Regulations for Construction."

Application

Through their contracting representatives, each department that coordinates or uses the services of a contractor to perform maintenance, repair, installation, renovation, construction, technical work, production support, or supply operations **is expected to nominate a COR or when a COR is deemed not necessary by the Contracting Officer, designate a TPOC to coordinate these services within his or her department.** The COR or TPOC will communicate the presence of any hazards in or near the work area to the contractor and ensure that contractor personnel are listed in, and receive training on the EAP for the space that they work in. Prospective contractors can contact the NUWC Division, Keyport Safety Office for clarification and an explanation of the type of hazards that their personnel are likely to be exposed to at all work sites. Designated government safety representatives are also knowledgeable of workplace hazards at the remote operating sites and detachments. Any information provided by the government does not relieve or alter the contractor's responsibility to identify hazards, assess risks, and take corrective actions to reduce or eliminate the risk(s) to acceptable levels for their personnel.

Scope

These requirements apply to all NUWC Division, Keyport facilities, and to all work performed by contractors or subcontractors in support of NUWC Division, Keyport mission processes, including repairs and upgrades to NUWC Division, Keyport controlled facility infrastructure or equipment.

General Requirements

SAFETY REQUIREMENTS FOR CONTRACTORS AND SUBCONTRACTORS

A copy of this document will be made available upon request to prospective bidders/offers at the pre-bid/pre-proposal conferences for the work. This document will be either included with or referenced in, all contract documents.

Submittals, where required from the contractor by this document, will be made in writing directly to the COR, TPOC, or Contracting Officer. Submittals will be made sufficiently in advance to avoid delay of the project. Where review, approval, or coordination of submittals is required, submittals will be made at least ten (10) working days before the start of the project unless prior arrangements have been made. Post-job submittals, where required as outlined in this document, will be made no later than fifteen (15) working days after completion of the project or as specified herein.

Embedded contractors will provide the COR, TPOC, or Contracting Officer with the emergency contact phone number(s), available 24 hours a day, for the contractor's program manager. These phone numbers will also be provided to the NUWC Division, Keyport Safety Office via e-mail or memo.

Additionally, in accordance with 29 CFR Part 1904, "Recording and Reporting Occupational Injuries and Illnesses," all contractor firms that provide 1,000 hours or more of embedded contractor service work in any given quarter will provide the following work-related injury and illness information in the format provided below to the COR, TPOC, or Contracting Officer before the end of January of each year (Note 1). Report applicable contractor injury and illness experience only for work at NUWC Division, Keyport sites. The NAICS code should reflect the relevant contractor's primary work activity at NUWC Division, Keyport, and not the contractor's corporate NAICS code.

Note 1: The following information is only required of contractors that provide services to NUWC Division, Keyport in the Puget Sound geographic area. Contractors providing services outside the Puget Sound area (i.e., San Diego, Hawthorne, Guam, Hawaii, etc.) are exempt from providing the information shown in the table below. Contractors that provide services in multiple geographic areas are to populate the table with only the work performed by their employees providing services (1,000 hours or more per quarter) in the Puget Sound area.

Applicable Contractor Recordable Nonfatal Injury and Illness Case Incidence Rates (for use by site-based non-construction participants) (for the applicable contractor's work at NUWC Division, Keyport)						
Name of Applicable Contractor:						
NAICS Code (for applicable contractor's work NUWC Division, Keyport):						
1	2	3	4	5	6	7
Year	Total Number of Employees*	Total Work Hours	Total Number of Injuries & Illnesses	Total Case Incidence Rate for Injuries and	Total Number of Injury & Illness Cases Involving Days	Days Away from Work, Restricted Work Activity, and/or

SAFETY REQUIREMENTS FOR CONTRACTORS AND SUBCONTRACTORS

				Illnesses (TCIR)	Away from Work, Restricted Work Activity, and/or Job Transfer	Job Transfer Rate (DART Rate)
Most recent published BLS rate for work performed at NUWC Division, Keyport						
Percent above or below the national average						

*Estimated average number of applicable contractor employees at NUWC Division, Keyport.

Note: Enter data into shaded areas.

Contractor Responsibilities

The contractor will ensure that all work under contract meets or exceeds OSHA standards. The contractor will ensure the safe work performance of employees and subcontractors, and bares sole responsibility for the safety of their employees. The contractor will take all steps necessary to establish, administer, and enforce safety rules that will meet the current requirements of Federal OSHA, Washington OSHA (WISHA), California OSHA (Cal/OSHA), Nevada OSHA (NVOSHA), and Hawaii OSHA (HIOSH) regulations, as applicable. These regulations include, but are not limited to:

- Title 29 of the Code of Federal Regulations (CFR) Part 1910, "Occupational Safety and Health Administration (OSHA) Standards for General Industry."
- Title 29 CFR Part 1926, "Occupational Safety and Health Administration (OSHA) Standards for the Construction Industry."
- DoD 4145.26-M, "DoD Contractor's Safety Manual for Ammunition and Explosives."
- EM385-1-1 (US Army Corps of Engineers Safety and Health requirements Manual)
- NAVSEA OP 5, "Ammunition and Explosives Safety ASHORE."
- OPNAVINST 8023.24 (series), "Navy Personnel Ammunition and Explosives Handling Qualification and Certification Program."
- OPNAVINST 3500.39 (series), "Operational Risk Management"
- 29 CFR 1910.146, "Permit-required Confined Spaces," for ASHORE spaces
- 29 CFR 1915 Subpart B, "Confined and Enclosed Spaces and Other Dangerous Atmospheres in Shipyard Employment,

The contractor will remove employees who refuse or repeatedly fail to comply with safe work practices and standards, and contractor leads and program managers who fail to enforce compliance from the associated work assignments.

The contractor bares sole responsibility for communication of safety-related information and requirements to their subcontractors. The contractor will ensure that their subcontractors comply with the requirements outlined herein.

Certification Requirements

SAFETY REQUIREMENTS FOR CONTRACTORS AND SUBCONTRACTORS

The contractor will assess the workplace to determine if hazards are present, or are likely to be present, which necessitate the use of PPE. The contractor will verify that the required workplace hazard assessment has been performed through a written certification that identifies 1) the workplace evaluated; 2) the name of the person certifying that the evaluation has been performed; 3) the date(s) of the hazard assessment; and, 4) an explicit statement in the document that shows it as a certification of hazard assessment.

Contractors providing services involving ammunition and explosive materials on behalf of NUWC Division, Keyport is required to establish a qualification and certification program. See Explosives under Specific Program Requirements.

The contractor will make written certifications available to the COR, TPOC, or Contracting Officer upon request. The government will provide copies of government certifications to the contractor's program manager.

Required Safety Programs

The contractor shall submit a comprehensive written safety program covering all aspects of onsite and applicable offsite operations and activities (remote work location such as the ranges) whenever any work involves those programs listed under the Specific Program Requirements herein. Unless adequately covered in the original plan, the contractor will submit a supplementary plan before starting each major phase of work or when requested by the COR, TPOC, or Contracting Officer. Onsite work will not begin until the COR, TPOC, or Contracting Officer has accepted the program. Accepting contractor initial or supplementary programs only signifies that the contractor has provided adequate documentation to perform the work safely. It does not relieve the contractor of responsibility for providing employees a safe and healthful work environment or compliance with stated requirements and applicable specification paragraphs.

Required Meetings

The contractor shall conduct regularly scheduled (at least monthly) supervisory safety meetings with contract employees. The contractor shall maintain a summary record or meeting minutes and names of those who attended. These records will be retained for the duration of the contract and made available to the COR, TPOC, or Contracting Officer upon request.

Safety and Health Professional Support

When the contract does not require the services of a full-time safety professional, the contractor shall designate in writing a competent supervisory employee with their telephone number, acceptable to the COR, TPOC, or Contracting Officer, to administer the safety program.

SAFETY REQUIREMENTS FOR CONTRACTORS AND SUBCONTRACTORS

The contractor will obtain services of a qualified professional to assess employee exposures for operations governed by the expanded OSHA Standards (29 CFR 1910.1001 through 29 CFR 1910.1052 covering exposure to toxic and hazardous substances) and make the results available upon request to the COR, TPOC, or Contracting Officer.

The contractor shall test the breathing air required by OSHA regulations (29 CFR 1910.134), even if the equipment is government-owned or operated. The contractor shall immediately notify the COR, TPOC, or Contracting Officer if breathing air does not meet Grade D requirements and will identify interim solutions for the continuation of work.

Required Inspections

The contractor will ensure competent employees conduct frequent and regular (at least weekly for industrial/production environments and quarterly for office environments) safety inspections of the worksites, materials, and equipment. The contractor will prohibit the use of any machinery, tool, material, or equipment that is not safe and does not comply with applicable standards. The contractor will identify any deficient machine, tool, material, or equipment as unsafe by tagging or locking the controls to make them inoperable or by physically removing from service. The contractor will notify the COR, TPOC, or Contracting Officer in writing of any deficient government furnished equipment or material, recommended corrective actions, and potential delivery or schedule impacts.

Mishap Investigations and Emergency Situations

Any contractor work-related accident, which results in an employee injury or property damage, will be immediately reported by telephone to the COR, TPOC, or Contracting Officer, and as soon as practicable to the NUWC Division, Keyport Safety Office or the designated safety representative at the detachments and remote operating sites. The contractor will complete an accident/mishap investigation and forward a copy to the COR, TPOC, or Contracting Officer within three (3) workdays of the mishap. For information not available at the time of initial notification, the contractor will provide the remaining information not later than twenty (20) calendar days after the mishap, unless extended by the COR, TPOC, or Contracting Officer. Mishap notifications will contain, at a minimum, the following information:

- a) Contract description, contract number, name, and title of person(s) reporting.
- b) Date, time, and exact location of accident/incident.
- c) A brief narrative of accident/incident (events leading up to accident/incident).
- d) Cause of accident/incident (if known).
- e) The estimated cost of accident/incident (material and labor to repair/replace).
- f) Nomenclature of equipment and personnel involved in accident/incident.
- g) Corrective actions (taken or proposed).

SAFETY REQUIREMENTS FOR CONTRACTORS AND SUBCONTRACTORS

h) Other pertinent information.

For incidents involving a fatality, a serious injury requiring Advanced Life Support (ALS), or government property damage in excess of \$50,000 the contractor will not disturb the scene of the accident or incident (except for rescue and emergency measures), and not resume operations until authorized by the COR, TPOC, or Contracting Officer. The contractor will assist and cooperate fully with the government in conducting the investigation and ensure the availability of all information, personnel, and data pertinent to the investigation. To avoid confusion and to preserve life, all embedded contractors will follow the building EAPs, muster at designated locations, and obey orders from the Incident Scene Commander when emergency conditions arise.

Ergonomics

The contractor is responsible for providing ergonomic assessments for their employee's work areas (office or industrial). Where government-furnished equipment is supplied as contractor workstations, the contractor is responsible for assessing those workstations to ensure that they conform to the employees work limitations and physical requirements. Where changes are needed, the contractor is responsible for notifying the COR, TPOC, or Contracting Officer in writing of what equipment or office furnishings are required to eliminate the workplace stressors. Departments receiving the contractor support are responsible for providing peripheral office accessories, i.e., adjustable keyboard trays, trackballs, footrests, chairs, industrial lift carts, stock trays, etc. to correct the deficiency. In accordance with NUWCKPTINST 5100.20, Safety procures and maintains a limited selection and quantify of Ergonomic equipment for use by Federal civilian employees and Active Duty Military personnel only.

Control of Fugitive Emissions

The contractor will take all necessary precautions to control or contain fugitive emissions from the job site. Fugitive emissions include, but are not limited to:

- Nuisance dust
- Chemical odors/vapors
- Hazardous materials (such as lead dust or asbestos)
- Noise

Where the product(s) or material(s) planned for use by the contractor as well as any waste residue caused by contractor operations has a permissible exposure limit (PEL) established by OSHA, the contractor will submit a written plan to the COR, TPOC, or Contracting Officer and NUWC Division, Keyport Safety Office prior to the work. This plan will detail the methods that will be employed by the contractor to limit, control, or eliminate exposure to NUWC Division, Keyport employees and the public to these hazards. Where engineering controls will not control fugitive emissions of these chemicals or materials or are not feasible, the contractor will monitor, or will contract to have monitored, work area exposure conditions. Monitoring will occur, at a minimum,

SAFETY REQUIREMENTS FOR CONTRACTORS AND SUBCONTRACTORS

during the start of work and whenever there is a change in procedure, process, or chemical or material used. A copy of the monitoring results will be submitted to the COR, TPOC, or Contracting Officer and will be copied to NUWC Division, Keyport Safety Office within 24 hours of receipt by the contractor.

Accidental Spills, Releases, and Other Emergencies

In the event of an accidental release or spill of chemicals or other hazardous materials caused or observed by contract employees, the contractor will:

Puget Sound Geographic Area (Keyport and Bangor)

- Immediately take action as appropriate to contain the spill if this action can be taken without jeopardizing the health or safety of employees.
- Call 911 if using a phone connected to the government system (360-396-4444 from a cell phone) to report a spill, release, or another emergencies.
- Notify the NUWC Division, Keyport Safety POC at X62462 (360-396-2462 from a cell phone) of any spills, releases, or other emergencies.
- Notify the COR, TPOC, or Contracting Officer.

Emergency response personnel may be reached 24 hours a day by calling 911 (or 360-396-4444 by cell phone).

Kauai

- Immediately take action as appropriate to contain the spill if this action can be taken without jeopardizing the health or safety of employees.
- Call 422-4333 if using a phone connected to the government system (808-335-4333 from a cell phone) to report a spill, release, or other emergency.
- Notify the NUWC Division, Keyport Site Manager at 422-4602 (808-335-4605 from a cell phone) or 808-286-0379 of any spills, releases, or other emergencies, and
- Notify the COR, TPOC, or Contracting Officer.

Emergency response personnel may be reached 24 hours a day by calling 422-4333 (or 808-335-4333 by cell phone).

Oahu

- Immediately take action as appropriate to contain the spill if this action can be made without jeopardizing the health or safety of employees.
- Call 911 if using a phone connected to the government system (808-471-7117 from a cell phone) to report spill, release, or another emergency.
- Notify the NUWC Division, Keyport safety representative POC at 808-472-1704 of any spills, releases, or other emergencies, and
- Notify the COR, TPOC, or Contracting Officer
- The following locations apply:

SAFETY REQUIREMENTS FOR CONTRACTORS AND SUBCONTRACTORS

- Torpedo IMA at Westloch
- Naval Magazine Lualualei
- Kalaeloa, Campbell Industrial Park (Barbers Point)
- Beckoning Point, Waipahu
- Ford Island
- Naval Base Pearl Harbor

Emergency response personnel may be reached 24 hours a day by calling 911 (or 808-471-7117 by cell phone).

San Diego

- Immediately take action as appropriate to contain the spill if this action can be taken without jeopardizing the health or safety of employees.
- For phones connected to the government system, contact emergency services to report a spill, release, or another emergency at 911 or 9 - 911 as shown below for the following bases:
 - Naval Base Coronado/Naval Air Station North Island (NBC/NASNI), phone 9-911 if using a government phone (619-545-0612 from a cell phone)
 - Naval Base Coronado/San Clemente Island (NBC/SCI), phone 9-911 if using a government phone (619-545-0612 from a cell phone)
 - Naval Base Point Loma/Submarine Base (NBPL/SUBASE), phone 9-911 if using a government phone (619-221-5260 from a cell phone)
 - Naval Base San Diego (NBSD), phone 911 if using a government phone (619-556-7615 from a cell phone)
- Notify the NUWC San Diego Safety POC at 619-545-0625 of any spills, releases, or other emergencies, and
- Notify the COR, TPOC, or Contracting Officer

Guam

- Immediately take action as appropriate to contain the spill if this action can be taken without jeopardizing the health or safety of employees,
- Call 333-2092 if using a phone connected to the government system (671-333-2092 from a cell phone) to report a spill, release, or another emergency.
- Notify the NUWC Division, Keyport Site Manager at 671-343-2413 or 671-486-5345 of any spills, releases, or other emergencies, and
- Notify the COR, TPOC, or Contracting Officer.

Hawthorne

- Immediately take action as appropriate to contain the spill if this action can be taken without jeopardizing the health or safety of employees,

SAFETY REQUIREMENTS FOR CONTRACTORS AND SUBCONTRACTORS

- Call 7911 if using a phone connected to the government system (774-945-7911 from a cell phone) to report a spill, release, or another emergency.
- Notify the NUWC Division, Keyport Safety POC at 775-945-7210, and
- Notify the COR, TPOC, or Contracting Officer.

Emergency response personnel may be reached 24 hours a day by calling 7911 (or 775-945-7911 by cell phone).

All costs associated with responding to or remediating a chemical or hazardous material spill or release will be the responsibility of the contractor.

Other Potential Safety Hazards

The contractor will abide by the requirements of any sign posted in a building that requires the use of specific PPE, that restricts access to qualified or authorized persons only, or that establishes requirements for entry.

Appropriate Work Attire

Contractor employees are required to follow the same dress standards as NUWC Division, Keyport employees, particularly when working in industrial or production work areas and while aboard range vessels. Accordingly, rings, jewelry, wristwatches, etc., will not be worn on any job involving moving/rotating machinery, exposed electric currents, and explosives operations.

All contractor employees will wear clothing suitable for the safe and efficient performance of their work. Neckties and other loose items will not be worn around moving/rotating machinery. Caps or other suitable covers will be worn to contain hair longer than shoulder length when working around moving machinery. If bandanas are worn for this purpose, they will be securely tied, with ends tucked in. Work clothing will be kept clean with little to no oil/grease contamination to minimize fire and health hazards to personnel.

Long sleeves will be worn during operations involving brush cutting, welding, burning, and in occupations where exposure to chemicals, molten metals, ultraviolet rays, or where other similar hazards are likely. Contractor employees exposed to hot sparks or molten metal will wear hard cloth, leather, or woolen clothing and ankle-high (or higher) shoes (Congress type safety shoes will be worn when working with molten metals). In industrial operations where there is no hazard to the upper arms, short sleeve shirts or blouses may be worn, provided they cover the entire upper torso.

Contractor employees working in industrial operations, production shops, explosives operating buildings and work areas, and aboard range vessels will wear trousers, slacks, or coveralls that completely cover the lower extremities.

SAFETY REQUIREMENTS FOR CONTRACTORS AND SUBCONTRACTORS

Contractor employees will not wear synthetic fabrics (such as nylon) in areas containing exposed explosives, pyrotechnics, or explosive air vapor mixtures

All contractor employees will wear shoes that are in good repair. Shoes worn by contractor employees in industrial and production shops as well as aboard range vessels will have shoe uppers of solid leather construction or similar human-made materials, with no cut out areas. Artificial leather-like Corfam, patent leather, or any similar type poromeric material shoes will not be worn when exposed to any type of hot work, including welding, cutting, brazing, flame soldering, or in engine rooms on any Naval vessel or craft. Contractor employees whose work requires them to wear approved foot protection will do so throughout their entire work shift.

ORM

Operational Risk Management (ORM)

Operational Risk Management (ORM) is a decision-making tool used by personnel at all levels to increase effectiveness by identifying, assessing, and managing risks. By reducing the potential for loss, the probability of a successful mission is increased. ORM increases the Navy's ability to make informed decisions by providing a standardized RM process. ORM minimizes risks to acceptable levels, commensurate with mission accomplishment. All contractor employees, will apply the ORM principles and process in all activities in order to optimize mission success and maintain readiness.

Training

It is the responsibility of the contractor to ensure that mandatory government training requirements are met and properly reported to the COR, TPOC, or Contracting Officer. Examples of mandatory training include, but are not limited to Personally Identifiable Information (PII), Information Assurance, Antiterrorism briefing, Operational Security (OPSEC), and trafficking in persons basic awareness training. Mandatory training requirements will be identified at the task order or contract level.

Specific Program Requirements

Asbestos and Presumed Asbestos Containing Building Materials

The contractor is responsible for providing his or her asbestos awareness program which will include, but is not limited to, the information contained in this section and the OSHA asbestos-related regulations (29 CFR 1926.1101, "Exposure to Asbestos in Construction Work," and 29 CFR 1910.1001, "Asbestos"). Verification that this training has been conducted will be provided to the NUWC Division, Keyport COR, TPOC, or Contracting Officer upon request.

SAFETY REQUIREMENTS FOR CONTRACTORS AND SUBCONTRACTORS

Contractors performing building or facilities-related maintenance, repair or renovation will be informed by the COR, TPOC, or Contracting Officer of the location of presumed and known asbestos-containing materials (PACM & ACM) in the work area(s) to which they are assigned by one of the following means:

- The COR, TPOC, or Contracting Officer will provide the contractor with a copy of an asbestos inspection report specific to their work and the materials that are to be disturbed.
- Where the construction documents, specifications, or drawings for a project detail asbestos locations within the work area, these documents may serve instead of the asbestos inspection report.

The buildings listed in Tables 1 thru 4 are known to have ACM. Any work that disrupts, penetrates, or requires removal of flooring, ceilings, roofing, siding, thermal system insulation (pipe lagging), and walls will be reviewed and approved by the Asbestos Program Manager, reached by contacting NUWC Keyport Engineering and Facilities Branch.

Table 1						
NUWC DIV Keyport & Bangor Annex Bldgs. with asbestos containing materials						
	48	84	106	207	820	5094
6	73	85	137	233	5000	5095
12	74	91	144	467	5090	7246
15	80	93	185	478	5091	7717
38	81	98	198	489	5092	7718
40	82	105	206	514	5093	7719
Table 2						
NUWC DIV Keyport detachment Hawaii Bldgs. with asbestos containing materials						
	133	167	171			
Table 3						
NUWC DIV Keyport detachment San Diego Bldgs. with asbestos containing materials						
Table 4						
104-1	104-6	49-10	49-15	49-20	50-15	104-11
104-2	104-7	49-11	49-16	49-21	50-27	104-12
104-3	104-8	49-12	49-17	49-30	50-40	104-13
104-4	104-9	49-13	49-18	49-31	50-41	104-14
104-5	104-110	49-14	49-19	49-32	75-11	105-20

Contractors will, under no circumstances, damage or disturb suspect or known ACM unless they are a licensed Asbestos Abatement Contractor and have been specifically employed to perform asbestos repair or removal. If suspect asbestos materials are discovered during the work, the contractor will stop work immediately and notify the COR, TPOC, or Contracting Officer.

The contractor will not proceed with any change in work which requires a material to be disturbed that the asbestos inspection report or construction documents show has not previously been tested (e.g. "presumed" ACM). If a change in the scope of work becomes necessary, the revised scope of work will be reviewed and pre-approved by

SAFETY REQUIREMENTS FOR CONTRACTORS AND SUBCONTRACTORS

the Asbestos Program Manager before to being incorporated into the contract by the Contracting Officer by modification.

Asbestos materials will not be used or installed in NUWC Division, Keyport facilities.

Lead Containing Building Materials, Toxic Metals, and Operations Generating Hazardous Atmospheres

Contractors performing building or facilities-related maintenance, repair, or renovation will be informed by the COR, TPOC, or Contracting Officer of the location of lead-containing building materials in the work area(s) to which they are assigned by one of the following means:

- The COR, TPOC, or Contracting Officer will provide the contractor with a copy of the lead inspection report specific to their work and the materials that are to be disturbed, or
- Where the construction documents, specifications, or drawings for a project detail the location of lead-containing building materials within the work area, these documents may serve instead of the lead inspection report.

Contractors that will disturb lead-containing building materials during the work will take all necessary precautions to protect NUWC Division, Keyport employees and visitors to NUWC Division, Keyport from exposure to lead dust or contamination. These measures will conform, at a minimum, to the OSHA requirements detailed in 29 CFR 1926.62, "Lead Exposure," and applicable local, state, and federal regulations. The contractor will submit a copy of their lead compliance program, as required by 29 CFR 1926.62(e), "Methods of Compliance," or state OSHA equivalent, with required supporting documentation to the COR, TPOC, or Contracting Officer for review and approval by the NUWC Division, Keyport Safety Office. This submittal will be made sufficiently in advance of construction to avoid delay of the project.

The contractor will not proceed with any change in work that requires material to be disturbed that the lead inspection report or construction documents show has not previously been tested unless pre-approved work procedures will be followed.

Contractors performing industrial or production work where toxic metals (such as lead, cadmium, mercury, beryllium, chromium-VI, and arsenic) and liquids/gases (such as methylene chloride, formaldehyde, and benzene) may be encountered will perform independent assessments of worker exposures using a qualified person. The contractor will assess and monitor (in accordance with OSHA standards) any government furnished equipment or government-furnished material (GFE/GFM) used for implementing engineering and administrative controls (ventilation, breathing air, shower facilities, sensors, etc.) and will notify the COR, TPOC, or Contracting Officer whenever the GFE/GFM fails to meet OSHA requirements and recommend an alternative solution for continuation of work, if feasible. A copy of the analytical report(s) for any air samples taken during work will be provided to the COR, TPOC, or

SAFETY REQUIREMENTS FOR CONTRACTORS AND SUBCONTRACTORS

Contracting Officer.

Contractors performing industrial, production, maintenance, or repair work that will generate hazardous environments/atmospheres will implement appropriate controls to minimize the generation of such hazards and assess potential exposures using a qualified person. When contract work involves grinding, sanding, painting, burning, etc. in non-industrial work areas the contractor will perform as much work as possible on second shifts or weekends to avoid exposing government personnel to air-quality issues.

Confined Spaces

All shore-based confined spaces under NUWC Division, Keyport cognizance are identified with warning labels. The known hazards for each space will be provided by the COR, TPOC, or Contracting Officer upon request. Contractors are required to have a written program that meets the minimum standards of 29 CFR 1910.146, "permit-required Confined Spaces," or the state OSHA equivalent. Each contractor who is required to perform work that will require personnel entry into a confined space will:

- Obtain the services of a qualified person for testing and monitoring the atmosphere of the confined space.
- Issue entry permits for their employees and not use entry permits written for government personnel.
- Obtain hot work permits from the Federal Fire Department whenever welding, cutting, riveting, burning, and heating or other similar operation are performed that are capable of producing a source of ignition.
- Notify and coordinate with the Federal Fire Department whenever personnel will be working in confined spaces to ensure rescue services are available.
- Where rescue services cannot be obtained from the Federal Fire Department, inform the COR, TPOC, or Contracting Officer in writing of the rescue services/team they will be using during permit entry.
- Provide adequate barriers and guards or traffic control as appropriate to prevent unauthorized personnel from entering the immediate work area.
- Contractors will guard, erect barriers, and post signage whenever access covers are removed to gain entry into ship's voids.
- Upon completion of work, contractors will replace and secure removed hatches, access covers, closures, and lids as soon as practicable.

Hazard Communication

Chemicals and hazardous materials are used extensively at NUWC Division, Keyport. Chemical use is routine and may be encountered in the following areas or locations:

- Laboratories.
- Fume hood exhausts on the roofs of laboratory buildings and shop buildings. (In general, signs have been posted on the roof access hatch or door restricting access

SAFETY REQUIREMENTS FOR CONTRACTORS AND SUBCONTRACTORS

to the roofs of buildings where fume hood exhausts are located).

- Store rooms and sheds.
- Chemical waste accumulation areas.
- Range vessels.
- Building mechanical rooms.
- Custodial closets.
- Production and Industrial shops.

Workplaces that include multi-employers who produce, use or store hazardous chemicals in such a way that the employees of other employer(s) may be exposed will ensure access to SDS's are readily available to all government and contractor employees at NUWC Division, Keyport either electronically (over the Keyport intranet) or in printed format (copies of SDSs are maintained by the NUWC Division, Keyport Environmental Office). Contractors will have access to either electronic or printed copies of SDSs.

For operations in which chemicals are used that require special handling or precautionary measures, the COR, TPOC, or Contracting Officer will provide the contractor with the necessary information so that the contractor can employ appropriate protective measures during normal operating conditions and in foreseeable emergencies. The contractor will be responsible for assessing the workplace to determine the hazard potential and the appropriate PPE. The Government supervisor is responsible for notifying the COR, TPOC, or Contracting Officer of any chemicals used in the work area that require special handling or precautionary measures and changes in the use of these chemicals.

Containers of chemicals and hazardous materials will be properly labeled in accordance with Navy and Federal regulations. The original hazard communication compliant manufacturer's label or a Globally Harmonized System of Classification and Labeling (GHS) compliant hazardous communication (HAZCOM) label. In the absence of the original manufacturer's label, a standard Department of Defense (DOD) Hazardous Chemical Warning Label will be used. In addition, an Enterprise Resource Planning (ERP) label typically white (older labels will be pink or orange) will be affixed to containers that lists the unique identifier used to cross-reference the item with its SDS. White labels can be obtained from the Naval Sea Logistics Center (NSLC) or Hazardous Material Manager.

The contractor will maintain, on-site, SDSs for all hazardous chemicals used or stored at that job site. Copies of SDSs will be provided to the COR, TPOC, or Contracting Officer upon request. Typical household products used in office environments are exempt from this requirement (cleaners, sanitizers, ink cartridges, batteries, etc.).

The contractor will take precautions to ensure that hazardous chemicals or materials are handled and disposed of in accordance with federal and state regulations. Where a hazardous waste disposal manifest is required by these regulations, the contractor will contact the Environmental Branch to assure that manifesting, storage, and the proposed

SAFETY REQUIREMENTS FOR CONTRACTORS AND SUBCONTRACTORS

disposal method and disposal site meet NUWC Division, Keyport requirements. The contractor will supply a copy of the completed waste manifest to the Environmental Branch within 24 hours of receipt.

Where the contractor has secured air samples documenting employee exposure to airborne chemical or particulate hazards during their work, a copy of all air sample results will be provided to the COR, TPOC, or Contracting Officer.

Energy Control (Lockout/Tagout)

Contractors will use their Contractor Agency's Lockout/Tagout instruction(s) and their designated The contractor will establish a lockout/tagout devices. Per OPNAVINST 5100.23 Series:

- Contractors and other outside agencies must comply with an energy control program and use their lockout/tagout procedure, locks, and tags. The contractor's program will meet the requirements of 29 CFR 1910.147, 29 CFR 1910 Subpart S, and EM385-1-1 ("Control of Hazardous Energy (Lockout/Tagout)," as well as those found in the EM385-1-1, "US Army Corps of Engineers Safety and Health requirements Manual).
- A copy of the instructions explaining the contractor agency's OSHA compliant control of hazardous energy program as required by statement of work or direction by the contracting officer representative, and the contractors' lockout/tagout/energy control program will be provided to the COR, TPOC, or Contracting Officer prior to work commencing.
 - In turn, the COR, TPOC, or Contracting Officer will provide a copy to the Safety Office (Energy Control / Electrical Safety Program Manager).
- In addition, the contractor must be familiar with the NUWC Keyport's hazardous energy control procedures and/or instructions. A copy of NUWC Keyport's Energy Control Program Directive (NUWC DIV KPTINST 5100.44) will be provided to the contractor upon request.

Electrical Safety & Systems

Contractors will comply with the requirements of 29 CFR 1910 Subpart S – Electrical. The Contractor Agency will ensure that Safety-Related Work Practices of Subpart S is solely responsible for ensuring the safety of their employees and will not request or rely on government personnel to secure, lock, or tag energy sources.

The contractor will ensure that only qualified persons work on electrical equipment. Where work is required on energized equipment, the contractor agency will assess hazards and risks associated with the job, provide training to their employees, and provide necessary PPE as required by the National Fire Protection Association Standard 70E, "Standard for the job.

SAFETY REQUIREMENTS FOR CONTRACTORS AND SUBCONTRACTORS

- Electrical protective equipment will be provided by the Contractor agency Safety Office, including rubber-insulating gloves with leather protectors and arc-rated apparel as required by the job tasks.
- The contractor / contractor agency is responsible for the in-service care and use of electrical protective equipment per 29 CFR 1910.137.
- Contractor will provide a copy of the Energized Electrical Work Permit to the COR, TPOC, or Contracting Officer, upon request.
 - In turn, the COR, TPOC, or Contracting Officer will provide a copy to the Safety Office (Energy Control / Electrical Safety Program Manager). Notify the COR, TPOC, or Contracting Officer of any errors or changes to the arc flash hazard labels or instances where labels are missing.

Contractors will follow the Design Safety Standards for Electrical Systems of Subpart S and the NFPA 70 National Electrical Code (NEC). When installation, modification, maintenance, or repair of electrical equipment is performed, the contractor will:

- Affix a new legend in an electrical panel; the contractor will update and affix a new legend when new circuits are installed or circuit modifications are made to the power distribution panel;
- Cover any openings in an electrical panel resulting from the removal of breakers, conduit, or wire;
- Install appropriate covers for all receptacles;
- Cover any openings in junction boxes, receptacle boxes, power disconnects, and knife switches with appropriate cover;
- Appropriately label any abandoned panels, conduits, power disconnects, and knife switches as “out of service”;
- Replace any ceiling tiles as a result of electrical work and reinstall any removed tiles to their original configuration upon completion of work;
- Properly isolate from source and the contractors will properly terminate any dead-end wires with splice cap insulators or equivalent, and install appropriate junction box covers;
- Otherwise, appropriately enclose, guard, or insulate exposed energized circuit parts.

Pressurized Systems

SAFETY REQUIREMENTS FOR CONTRACTORS AND SUBCONTRACTORS

Contractors performing work on pressurized systems or components, such as compressed gas or compressed air, will comply with the requirements of 29 CFR 1910 Subpart H Hazardous materials and Subpart M Compressed gas and compressed air equipment.

NUWC Division, Keyport requires pressure vessels, fixtures, systems, and assemblies, including unmodified / modified commercial-off-the-shelf and locally designed pressure vessels, fixtures, systems, and assemblies be reviewed and/or approved by the command designated Pressure Hardware Design Agent (PHDA) per NUWCDIVKPTINST 5100.33, Development and Approval of Local Pressure Vessels/Fixtures/Assemblies/Systems prior to use on station.

This includes the pressurized systems in facilities located at Naval Base Kitsap (NBK) Keyport, NBK Bangor, the detachments (e.g., San Diego, Hawaii), and operating sites (e.g., range craft, test ranges) including locations governed by contractual requirements and Inter-Service Support Agreements.

Contractors working with pressurized systems must comply with NUWC Keyport Directive 5100.43, Pressure Systems Safety Program. The scope of this directive includes pressure vessels, fixtures, systems, and assemblies, including unmodified / modified commercial-off-the-shelf and locally designed pressure vessels, fixtures, systems, and assemblies used in Naval Undersea Warfare Center Division, Keyport (NUWCDIVKPT). The directive applies to all work centers and locations at NUWCDIVKPT. This includes the facilities located at Naval Base Kitsap (NBK) Keyport, NBK Bangor, the detachments (e.g., San Diego, Hawaii), and operating sites (e.g., range craft, test ranges) including locations governed by contractual requirements and Inter-Service Support Agreements.

When a contractor brings a pressurized system onboard the base, prior to use, the NUWCDIVKYPT Commanding Officer requires that the system be reviewed by NUWCDIVKYPT Pressurized Hardware Design Agent (PHDA). Refer to NUWC Keyport Directive 5100.33, section 4.1 “Additionally, pressurized devices developed outside NUWC Division, Keyport (i.e., Contractors, ARL Penn State, NUWCDIV Newport, etc.) that will be used at NUWC Division, Keyport must have their design specifications, test results and procedures reviewed and approved prior to use.)”.

NUWC Keyport Directive 5100.33, Section 4.4, “applies to all pressurized hardware (pressure vessels, pressurized fixtures, pressurized assemblies, or pressurized systems) used at or by employees of NUWC Division, Keyport...” regardless of location.

NUWC Keyport Directive 5100.33, Section 2.2., “all civilian government personnel, military personnel, contractors, and visitors performing work at NUWCDIV Keyport must adhere to this directive without exception.”

Lithium Batteries (and other High-Energy Systems)

SAFETY REQUIREMENTS FOR CONTRACTORS AND SUBCONTRACTORS

Contractors performing work with lithium batteries and other high-energy systems not previously mentioned, will comply with the requirements of 29 CFR 1910, 29 CFR 1926, NAVSEAINST 9310.1, and NAVSEA Technical Publication S9310-AQ-SAF-010.

NAVSEAINST 9310.1 requires all active batteries, both primary (non-rechargeable) and secondary (rechargeable), thermal and reserve lithium batteries (including “lithium-ion” batteries, and all equipment powered by lithium electrochemical power sources) intended for use, transport, or storage in naval facilities including NBK Keyport, NBK Bangor, the detachments (e.g., San Diego, Hawaii), and operating sites (e.g., range craft, test ranges) to follow requirements of NAVSEA Technical Publication S9310-AQ-SAF-010, Technical Manual for Navy Lithium Battery Safety Program Responsibilities and Procedures. This includes attaining certification of lithium batteries; and reporting of Commercial-off-the-shelf lithium batteries through the Lithium Battery Safety Program prior to procurement or use.

Trenching and Excavations

The contractor will coordinate trenching and excavation work with the COR, TPOC, or Contracting Officer, and the Facilities, Engineering, and Planning Branch to ensure the coordination of work and shutdown of utilities if necessary.

The design of sloping and benching systems, support systems, shield systems or other protective systems will conform, at a minimum; to the OSHA requirements detailed in 29 CFR 1926 Subpart P, "Excavations."

Trenching or excavations below the level of the base or footing of any foundation or retaining wall, or adjacent to any utility, sidewalk or roadway, will not be permitted unless:

- A support system, such as underpinning, is provided to ensure the safety of employees and the stability of the structure, or
- The excavation is in stable rock, or
- A registered professional engineer has approved the determination that the structure is sufficiently removed from the excavation to be unaffected by the excavation activity, or
- A registered professional engineer has approved the determination that such excavation work will not pose a hazard to employees or the structure.

This determination is the responsibility of the contractor except as permitted, required, or otherwise allowed by the project specifications or drawings. The contractor will notify the COR, TPOC, or Contracting Officer of the name of the individual that is to serve as the contractor's competent person as defined by this program and the OSHA regulations. The contractor's designated competent person will maintain a written log of the daily inspections made of excavations, adjacent areas, and protective systems. A copy of this written log will be made available to the COR, TPOC, or Contracting Officer.

SAFETY REQUIREMENTS FOR CONTRACTORS AND SUBCONTRACTORS

Where the design of a sloping and benching system, support system, shield systems or other protective systems requires review and approval by a registered professional engineer, the contractor will submit a copy of the completed review to the COR, TPOC, or Contracting Officer before the start of work.

Hot Work

Puget Sound Geographic Area (Keyport/Bangor)

Contractors performing hot work will obtain a Hot Work Permit from the Regional Fire Inspector at (360) 396-1600, 396-2614, or (360) 396-2355. For work in a building containing energetic materials (explosives), hot work permits also require approval by the Explosives Safety Officer at (360) 396-2396. Examples of hot work include, but are not limited to, use of open flames, compressed gases or supplied fuel burning, brazing, cutting, grinding, soldering, thawing the pipe, torch applied to roof, and welding.

Keyport Detachments and Remote Operating Sites:

Procedures for obtaining Hot Work Permits vary from one site to another. Contact the designated safety representative/POC for authorization and approval guidance for work requiring hot work.

Fall Protection

Contractors performing work on any NUWC Division, Keyport property who are exposed to fall hazards as identified in the applicable OSHA standards, will provide their employees with the required training, oversight, and fall protection equipment in accordance with federal and state occupational safety and health regulations, as well as implement ANSI Z359, "Fall Protection Standards System," requirements. Verification that this training has been conducted will be supplied to the COR, TPOC, or Contracting Officer. The table below provides a list of buildings at NUWC Division, Keyport and its detachments that have incorporated fall protection into the roof system. The contractor is responsible for assessing Navy-provided fall protection systems prior to use. If the fall protection systems are substandard, defective, or are questionable as to their structural integrity, the contractor is to notify the COR, TPOC, or Contracting Officer of the situation and implement alternative fall protection measures. Otherwise, the fall protection systems provided will be used when required and as designed. Where no fall protection is provided, the contractor is responsible for providing fall protection for its employees.

Building roofs at NUWC Division, Keyport have locked access control. The contractor will coordinate access with the COR, TPOC, or Contracting Officer. Upon completion of daily work or contract completion, the contractor will secure the ladder access covers and return the key to either the Building Manager or Command Dispatch Center, as appropriate.

SAFETY REQUIREMENTS FOR CONTRACTORS AND SUBCONTRACTORS

NUWC KEYPORT and BANGOR ANNEX BUILDINGS WITH FALL PROTECTION	
12	Anchor points
15	Dome has anchor points, remaining roof none
38	Anchor points the center of the roof. None on east and west lower levels.
73	Parapets SW roof only, remaining roof none
74	Anchor Points
82	Railing System
98	Anchor Points
105	Railing System
233	Anchor Points
467	Anchor Points
478	Anchor points less north patio area
514	Anchor Points
811	Anchor Points
820	Anchor Points
825	Anchor Points
894	Anchor Points
1002	Anchor Points
1003	Railing System
1006	Railing System
1040	Railing and Anchor point
1044	Anchor Points
1050	Railing System
1051	Railing System
1074	Anchor Points Westside and Parapet on Eastside
5003	Roof fenced, parapet against bermed area, one 6' area west side unprotected
5004	Anchor Points
5090	Anchor Points
5091	Anchor Points
5093	Anchor Points
5094	Anchor points less blast booth roof.
5888	Anchor Points
SAN DIEGO BUILDINGS WITH FALL PROTECTION	
38	Parapet
589	Anchor Points
60114	Railing System (San Clemente Island)
HAWAII BUILDINGS WITH FALL PROTECTION	
977	Parapet
Guam	
4460	Parapet

Explosives/Ordnance Contractor personnel who are involved with conventional Ammunition and Explosives (A&E) handling must be in a Qualification and Certification

SAFETY REQUIREMENTS FOR CONTRACTORS AND SUBCONTRACTORS

(Qual/Cert) program IAW OPNAVINST 8023.24C. That requirement can be met in one of two ways. Either the contractor has their Qual/Cert program, or contractor personnel can be a part of in the government's Qual/Cert program. NUWC Keyport has contract personnel in the Qual/Cert program in both ways.

Contractors, when soliciting or executing a contract with the Navy involving the manufacture, handling, storage, transportation, and assembly of A&E, must be prepared to produce documentation that shows that the employees who will perform these tasks have been trained, found qualified, and certified as required by OPNAVINST 8023.24 (series).

(1) Documentation will be made available upon request and subject to review by Navy representatives (i.e., Explosives Safety Officer (ESO), explosives safety inspectors, and others), who are assessing the contractor's Explosives Safety Management Program (ESMP) as part of contract award and while performing contractual work for the Navy.

(2) Ensure all contracts that require contractor personnel who handle or physically interact with ammunition and explosives (A&E) have an established Qualification and Certification program meeting the requirements of this instruction, including the use of mandatory forms.

(3) Contractors must provide the host Commanding Officer (CO), upon request, formal written certification of the qualifications of that personnel authorized to handle or physically interact with A&E.

Qualification & Certification program for Government Contractors

Government contractors who provide direct support (i.e., contractor personnel who perform tasks with Navy personnel) at Navy activities and commands will be in the Government's QUAL/CERT program.

Department of the Navy (DON) contracting officers will ensure Government contracts that require contractor personnel to handle or physically interact with A&E at or on DON activities or contracted shipyards meet the following:

(1) Have an established personnel explosive handling QUAL/CERT program that meets the requirements of this instruction for all employees who handle or interacts with A&E.

(2) Be documented, and company approved.

(3) Have a single company appointed QUAL/CERT board chair and similarly designated board members. These appointments will be documented. The board members must have adequate experience in handling the same A&E being handled by personnel

SAFETY REQUIREMENTS FOR CONTRACTORS AND SUBCONTRACTORS

b. DON contracting officers will ensure Government contracts that require contractor personnel to handle or physically interact with A&E at or on DON activities or contracted shipyards meet the following:

(1) Have an established personnel explosives handling QUAL/CERT program that meets the requirements of this instruction for all employees who handle or interacts with A&E.

(2) Be documented and company approved.

(3) Have a company appointed QUAL/CERT board chair and similarly designated board members. These appointments will be documented. The board members must have adequate experience in handling the same A&E being handled by personnel they are observing for certification.

(4) Have a documented training plan (TP).

(5) Personnel **will** be medically qualified and medical fitness **must** be documented using **Federal Motor Carrier Safety Administration, Department of Transportation Medical Examiners Certificate MCSA-5876. The OPNAV 8020/6 Department of the Navy Medical Examiners Certificate Form.**

(6) Apply requirements for individual qualifications and certifications in contracts with subcontractors who perform A&E activities at Navy locations.

(7) Incorporate DOD Federal Acquisition Regulation Supplement (DFARS) clauses:

(a) DFARS 252.223-7002, Safety Precautions for Ammunition and Explosives.

(b) DFARS 252.223-7003, Change in Place of Performance.

(8) Include clauses in the Government contract that require:

(a) "The contractor performing services involving A&E material on behalf of the Government will have an established explosive handling personnel QUAL/CERT program."

(b) "All Government contractor personnel performing A&E tasks under the scope of the contract will be included in the contractor's or the Government's QUAL/CERT program."

(9) Contracts that have been awarded before 16 March 2010 need not be modified. Existing guidance and language contained in those contracts for requiring explosives handling will remain in force. However, any contract modification after that date requires adherence of mandatory clauses stated in subparagraph 10b (7).

SAFETY REQUIREMENTS FOR CONTRACTORS AND SUBCONTRACTORS

(10) Any requirements needing TYCOM/Region Commander approval (e.g., initial certification, waivers, etc.) staff through service receiver (Program Manager or Program Officer) and are to be approved by the contracting officer.

Additionally, any contract work being performed at the NUWC Division, Keyport Ordnance Annex at Bangor, whether or not it involves explosives or energetic material, will be reviewed by the NUWC Division, Keyport Explosives Safety Officer or the designated representative prior to the start of work.

Contractors performing services for repair, maintenance, disassembly, and assembly of ordnance, are provided Otto fuel protective clothing (aprons, suits, booties, gloves) as GFM due to the extensive vendor qualification requirements for Otto fuel. Appropriate respiratory protection is provided as GFE at Detachment Hawaii to support emergency spill response and for the breakdown of unflushed torpedoes. All other PPE required to protect contract employees from workplace hazards is solely the responsibility of the contractor. As such, the contractor is responsible to provide, maintain, identify, and separately store their PPE from government-issued PPE.

The NUWC Division, Keyport and Regional Explosives Safety Officers may be reached at the following phone numbers:

Puget Sound Geographic Area (Keyport)	360-396-2396 or 315-5697
Joint Base Pearl Harbor/Hickam	808-471-1111x131
Hawthorne Army Ammunition Plant	775-945-7030
Naval Munitions Command Marianas	671-349-9294

Weight Handling Operations and Evolutions

There are two separate weight handling programs managed by NUWC Division Keyport. They are separated into i) Afloat and ii) Ashore and their requirements are specified below. Due to different regulations, compliance with one program does not equal compliance to both, based on contractor work location one or both programs may apply.

Weight Handling Evolutions and Handling Equipment – Afloat

Contractor shall follow all applicable Federal and State safety requirements associated with afloat/shipboard crane and handling equipment evolutions when employees of Naval Undersea Warfare Center (NUWC) Division Keyport are aboard the contractor owned vessel. This applies regardless of whether the use or operation conditions explicitly stated elsewhere in this section are met.

This section applies to all afloat/shipboard cranes, Ordnance Handling Equipment (OHE), non-ordnance Handling Equipment (HE), Materials Handling Equipment (MHE), and Weight Handling Equipment (WHE) regardless of geographic location under any of the following use or operation conditions:

- Used/Operated onboard vessels under the control of NUWC Division Keyport.
- Used/Operated by employees of NUWC Division Keyport
- Used to lift any equipment owned by the US. Government

SAFETY REQUIREMENTS FOR CONTRACTORS AND SUBCONTRACTORS

- Used to lift any equipment in the custody of the US Government
- **Afloat/Shipboard Cranes & Evolutions:**
Due to the complex and varying configuration of shipboard cranes and crane evolutions, contractors shall contact the Shipboard Crane Officer for specific guidance/requirements regarding certification of any crane to be used shipboard.
 - Cranes are considered weight handling equipment and defined by Naval Ships Technical Manual (NSTM) chapter 589 Cranes section 589-1.2.1 and NUWC Division Keyport Instruction 8020.9 "Development and Approval Of Locally Developed Handling Equipment, Materials Handling Equipment, and Weight Handling Equipment"
 - The contact information for the Shipboard Crane Officer may be found in Appendix A, of NUWC Division Keyport Instruction 11450.2 "Control and Use Of Handling Equipment"
 - All cranes shall be certified in accordance with NSTM 589
- **Handling Equipment:**
Handling equipment is a broad category of equipment whose purpose is to provide an interface between an item being lifted and the prime lifting equipment. Slings, strong backs, beams, adapters, bands, shackles are a few examples.
 - Handling equipment is considered standard only when published as current in NAVSEA OP 2173 or SW023-AH-WHM-010 and used in its approved configuration. All other Handling equipment and/or lifting configurations are considered non-standard.
 - Non-standard handling equipment must be reviewed and approved by the NUWC Division Keyport Weight Handling Equipment Design Agent(s) (WHEDA) in accordance with NUWC Division Keyport Instruction 8020.9 "Development and Approval Of Locally Developed Handling Equipment, Materials Handling Equipment, and Weight Handling Equipment"
 - All handling equipment shall be certified and tagged with proper documentation in accordance with applicable NAVSEA and NUWC Division Keyport Instructions, Standards, drawings and/or procedures
- For items that do not fit in either category above which are associated with lifting (ex. Custom Lifting Equipment), the NUWC Division Keyport WHEDA shall be contacted prior to item use, to clarify approval for use requirement(s)

Weight Handling Evolutions and Handling Equipment – Ashore

The following requirements apply to any contracted work utilizing cranes (and multi-purpose machines, MHE, and construction equipment used to lift loads suspended by rigging gear) and to all rigging equipment used in weight handling operations at a naval activity. These requirements do not apply to shipboard cranes or rigging equipment. These requirements also do not apply to: commercial truck mounted and articulating boom cranes used solely to deliver material and supplies where the lift consists of

SAFETY REQUIREMENTS FOR CONTRACTORS AND SUBCONTRACTORS

moving materials and supplies (not prefabricated components, structural steel, or components of a systems-engineered metal building) from a truck or trailer to the ground; to cranes installed on mechanic's trucks that are utilized solely in the repair of shore-based equipment; to cranes that enter the activity but are not used for lifting; nor other machines not used to lift loads suspended by rigging equipment. However, WHE accidents shall be reported in accordance with NAVFAC P-307 paragraphs 11.1.h and 11.1.i.

Each contractor will comply with all applicable requirements of their respective contracts, including:

a. The contractor shall comply with specific activity regulations pertaining to crane safety and operation (including allowable access routes and ground loading limitations), and notify the contracting officer, in advance, of any cranes entering the activity or of any multi-purpose machines, MHE, or construction equipment that may be used in a crane-like application to lift suspended loads. The contractor shall comply with applicable ANSI, ASME, or other appropriate industry consensus standards (e.g., ASME B30.5 for mobile cranes, ASME B30.22 for articulating boom cranes, ASME B30.3 for tower cranes, and ASME B30.8 for floating cranes, ASME B30.9 for slings, ASME B30.16 for overhead hoists, ASME B30.20 for below-the-hook lifting devices, ASME B30.21 for lever hoists, ASME B30.26 for rigging hardware, ASME B30.29 for self-erecting tower cranes, ANSI/ITSDF B56.6 for rough terrain forklifts, ANSI A10.31 for digger derricks, ANSI A92.2 for aerial lifts/platforms with hoists or "sign trucks", ASSE A10.22 for personnel hoists, ANSI/ASSP A10.48 for hoists used in communication structures). For cranes, machines, and rigging equipment at naval activities in foreign countries, the cranes, machines, and rigging equipment shall comply with the appropriate host nation safety standards. For floating cranes and barge-mounted mobile cranes, require a third party certification from an OSHA accredited organization (or a third party certification from a state accredited organization for those states with OSHA approved state plans), a load indicating device, a wind speed indicating device, and a marine type list and trim indicator readable in one-half degree increments. Additionally, for mobile cranes mounted on barges, the rules of 29 CFR 1926.1437 shall be followed. Third party certification is not required for floating cranes and barge-mounted mobile cranes at Navy activities in foreign countries.

b. The contractor shall complete a certificate of compliance (NAVFAC P-307, figure P-1) that certifies the crane (or other machine if used to lift suspended loads) and the rigging equipment meet applicable OSHA and ANSI/ASME regulations (with the contractor citing which OSHA and ANSI/ASME regulations are applicable, e.g., cranes/multi-purpose machines used in cargo transfer shall comply with 29 CFR 1917; cranes/multi-purpose machines used in construction, demolition, or maintenance shall comply with 29 CFR 1926; cranes/multi-purpose machines used in shipbuilding, ship repair, or shipbreaking shall comply with 29 CFR 1915; aerial lifts/platforms (sign trucks) with hoists shall comply with 29 CFR 1926.453 and ANSI A92.2; personnel hoists shall comply with 29 CFR 1926.552 and ASSE A10.22; slings shall comply with ASME B30.9; rigging hardware shall comply with ASME B30.26). Other national industry consensus

SAFETY REQUIREMENTS FOR CONTRACTORS AND SUBCONTRACTORS

standards equivalent to ASME are acceptable provided the contractor and activity note equivalent ASME standard (e.g. EN 13155 equivalent to ASME B30.20 for below the hook lifting devices or ISO 2415 equivalent to ASME B30.26 for shackles) For cranes (or other machines used to lift suspended loads) and rigging equipment at naval activities in foreign countries, the contractor shall certify that the crane (or other machine) and the rigging equipment conform to the appropriate host nation safety standards. The contractor shall also certify that all of its crane (or other machine) operational safety devices (operator aids in ASME documents) are enabled and functioning properly, that all personnel working on the naval activity job site have been trained to not stand under or in the fall zone of a suspended load unless specifically allowed by USACE EM 385-1-1, and that operators have been trained to not bypass safety devices (e.g., anti-two block devices, LMI's) during lifting operations. The certifications shall be available on the crane or in the contractor's on-site office for rigging operations.

c. For mobile cranes, commercial truck mounted cranes, and articulating boom cranes with OEM rated capacities of greater than 2000 pounds, the crane operator shall be designated as qualified by a source that qualifies crane operators (i.e., a union, a government agency, or an organization that tests and qualifies crane operators). Proof of current qualification shall be provided. Operators of cranes used in construction at activities under U.S. jurisdiction shall follow the qualification and certification requirements of 29 CFR 1926.1427. For Navy activities in foreign countries, follow host nation requirements as applicable in lieu of the CFR.

d. The contractor shall certify (NAVFAC P-307 figure P-1) that the operator is qualified and trained for the operation of the crane or machine to be used.

e. For multi-purpose machines, MHE, and construction equipment used to lift loads suspended by rigging equipment, the contractor shall provide proof of authorization from the machine OEM that the machine is capable of making lifts of loads suspended by rigging equipment. Written approval from a qualified registered professional engineer, after a safety analysis is performed, is allowed in lieu of the OEM's approval. The contractor shall demonstrate that the equipment is properly configured to make such lifts and is equipped with a load chart.

Note: MHE attachments covered by and used in accordance with NAVSEA SW023-AH-WHM-010 have been pre-approved for use with all MHE. These attachments are exempt from the OEM authorization requirement above.

f. The contractor shall ensure that all hooks used on cranes, hoists, other machines, and rigging gear shall have self-closing latches or the throat opening shall be "moused" (secured with wire, rope, heavy tape, etc.) or otherwise secured to prevent the attached item from coming free of the hook under a slack condition. The following exceptions apply and shall be approved by the contractor's technical organization: items where the hook throat is fully obstructed and not available for manual securing; and lifts where securing the hook throat increases the danger to personnel, such as forge shop, dip

SAFETY REQUIREMENTS FOR CONTRACTORS AND SUBCONTRACTORS

tank, or underwater work.

g. The contractor shall provide a critical lift plan for each of the following lifts: lifts over 75 percent of the capacity of the crane, hoist, or other machine (lifts over 50 percent of the capacity of a barge-mounted mobile crane's hoists) at any radius of lift; lifts involving more than one crane, hoist, or other machine; lifts of personnel (lifts of personnel suspended by rigging equipment from multi-purpose machines, MHE, or construction equipment shall not be permitted); lifts made in the vicinity of overhead power lines (see subparagraph (7)); erection of (mobile, tower, derrick, and floating) cranes; lifts of submerged or partially submerged objects (see exceptions in NAVFAC P-307 paragraph 10.4.1.e); lifts involving binding conditions; lifts of hazardous materials (see exceptions in NAVFAC P-307 paragraph 10.4.1.a); and lifts involving non-routine rigging or operation, sensitive equipment, or unusual safety risks. The plan shall include the following as applicable:

- (1) The size, weight, and center of gravity of the load to be lifted, including crane (or other machine) equipment and rigging equipment that add to the weight. The OEM's maximum load capacities for the entire range of the lift shall also be provided.
- (2) The lift geometry, including the crane (or other machine) position and configuration, boom length and angle, height of lift, and radius for the entire range of the lift. This shall include any matting/cribbing and ground preparation, as required. Applies to both single and multiple-crane/machine lifts.
- (3) A rigging plan, showing the lift points, rigging equipment, and rigging procedures.
- (4) The environmental conditions under which lift operations are to be stopped.
- (5) For lifts of personnel, the plan shall demonstrate compliance with the requirements of 29 CFR 1926.1431. For Navy activities in foreign countries follow host nation requirements as applicable in lieu of the CFR.
- (6) For barge mounted mobile cranes, barge stability calculations identifying crane placement/footprint; barge list and trim based on anticipated loading; and load charts based on calculated list and trim specific to the barge the crane is mounted on. The amount of list and trim shall be within the crane OEM's requirements.
- (7) For lifts in the vicinity of overhead power lines (i.e., if any part of the crane or other machine, including the fully extended boom of a telescoping boom crane or machine, or the load could approach the distances noted in NAVFAC P-307 figure 10-3 during a proposed operation), the plan shall demonstrate compliance with 29 CFR 1926.1408-1411. For Navy activities in foreign countries follow host nation requirements as applicable in lieu of the CFR.

h. The contractor shall notify the contracting officer as soon as practical, but not later than four hours, after any WHE accident, near miss, or unplanned occurrence. (See

SAFETY REQUIREMENTS FOR CONTRACTORS AND SUBCONTRACTORS

definitions in NAVFAC P-307 section 12.) For accidents, the contractor shall secure and preserve the accident scene to facilitate the investigation until released by the contracting officer. The contractor shall conduct an investigation to establish the root cause(s) of any WHE accident, near miss, or unplanned occurrence. Following an accident, crane operations shall not proceed until the cause is determined and corrective actions have been implemented to the satisfaction of the contracting officer. The contractor shall certify (NAVFAC P-307, figure P-1) that the operators, riggers and company officials are aware of the actions required in the event of an accident, near miss, or unplanned occurrence as specified in the contract.

i. The contractor shall provide the contracting officer accident, near miss, and unplanned occurrence reports within 30 days using the appropriate form provided in NAVFAC P-307 section 12 consisting of a summary of circumstances, an explanation of causes(s), photographs (if available), and corrective actions taken. These notifications and reporting requirements are in addition to those promulgated by OPNAVINST 5100.23 and related command instructions.

j. The contractor shall certify (NAVFAC P-307, figure P-1) that signal persons employed in construction work are qualified in accordance with 29 CFR 1926.1428. For Navy activities in foreign countries follow host nation requirements as applicable in lieu of the CFR.

k. The contractor shall certify (NAVFAC P-307, figure P-1) that the riggers are qualified to perform the work by either signing a statement of compliance, providing proof of successful completion of a rigging apprenticeship by a union or other organization providing apprenticeship training, or proof of successful completion of training courses from a recognized source such as a trade union, a government agency, or an organization that tests and qualifies riggers.

l. The contractor shall provide the following additional documentation for contracts involving tower cranes:

(1) Foundation design and requirements.

(2) Installation instructions.

(3) Assembly and disassembly instructions including climbing/jumping instructions if applicable.

(4) Operating manual, limitations, and precautions.

(5) Periodic inspection and maintenance requirements.

For tower cranes at Navy activities in foreign countries, the tower cranes shall comply with the appropriate host nation safety standards and industry consensus safety standards (e.g., EN or ISO standards).

SAFETY REQUIREMENTS FOR CONTRACTORS AND SUBCONTRACTORS

m. The following additional requirements apply to contracts involving work on telecommunication towers or with personnel hoists on communication towers:

(1) Base mounted drum hoists used in communication tower work shall comply with ANSI/ASSP A10.48, TIA-1019, TIA-222G, ASME B30.7, and 29 CFR 1926.552 and 29 CFR 1926.553. For Navy activities in foreign countries follow host nation requirements as applicable in lieu of the CFR.

(2) When used for hoisting personnel, base mounted drum hoists shall comply with OSHA Directive CPL 02-01-056; National Association of Tower Erectors standard "Base Mounted Hoist Mechanism Design Use Standard for Lifting Personnel While Working on Telecommunication Structures"; ANSI/ASSE A10.48; and AMSE B30.23 (or equivalent host nation safety standards for Navy activities in foreign countries).

(3) The use of a pickup truck or any other equipment besides a base mounted drum hoist for hoisting materials and/or personnel is prohibited.

(4) Rough-terrain forklifts, bulldozers, and similar equipment may be utilized for towing and anchorage purposes of guys. The use of such equipment for trolley/tag and load lines is prohibited, with the exception of using construction equipment for the sole purpose of anchorage that will not be moved during operations.

(5) Rigging gear utilized in communication tower work shall comply with the applicable ASME/OSHA standards and ANSI/ASSP A10.48. Operator, signal person, and rigger qualifications shall be in accordance with OSHA standards and this section. For Navy activities in foreign countries, follow host nation requirements as applicable in lieu of the CFR or ASME standards.

n. For construction contracts, follow the Unified Facilities Guide Specification UFGS-01 35 26 and USACE EM-385-1-1 in lieu of NAVFAC P-307 paragraphs 11.1.a through 11.1.g, 11.1.j through 11.1.m, and NAVFAC P-307, figures P-1 and P-2.

All custom lifting equipment and its certification will be reviewed by the NUWC, Keyport Weight Handling Equipment Design Agent prior to use.

Ionizing Radiation

The contractor and any subcontractor will notify the Task Order Manager of any operation, testing, or tools involving the use of ionizing radiation, radiation producing machines, or radioactive materials. Contractors will provide licensing, training, and other appropriate documentation upon request by the Task Order Manager.

Work Site Inspections

SAFETY REQUIREMENTS FOR CONTRACTORS AND SUBCONTRACTORS

Unannounced worksite inspections will be conducted by the NUWC Division, Keyport Safety Office or designated departmental personnel. These inspections are conducted solely for the benefit of NUWC Division, Keyport, and will not relieve the contractor of responsibility for enforcement of, and compliance with applicable OSHA regulations.

Whenever conditions exist that pose an immediate threat to life or damage to government property, NUWC Division, Keyport Safety personnel are authorized to issue instructions to stop work-related activities. If work-site conditions exist that could potentially impact the safety of NUWC Division, Keyport employees, the NUWC Division, Keyport inspector will issue a verbal or written warning to the contractor and will notify the COR, TPOC, or Contracting Officer. If the unsafe conditions cannot be immediately corrected and represent a danger or have the potential to harm NUWC Division, Keyport employees, then the NUWC Division, Keyport inspector will:

- Document the Navy and/or OSHA violations that were noted on a NAVOSH Deficiency Notice (NDN) explaining the potential impact upon NUWC Division, Keyport employees and provide written documentation to the COR, TPOC, or Contracting Officer, delineating the circumstances of the deficiency, signed by the NUWC Division, Keyport Safety Officer.
- As appropriate, require that the COR, TPOC, or Contracting Officer have the contractor stop work until the unsafe conditions can be mitigated.
- The COR, TPOC, or Contracting Officer will formally notify the contractor of the violations.

Reports of deficiencies will be factored into the Contract Performance and Rating System (CPARS) evaluation of the contract by the COR, TPOC, or Contracting Officer.

Repeat safety violations and a single severe and willful safety violation by a contractor will warrant review and termination of the contract.

“Serious, willful safety violation” is defined, for this program, as a work activity with a substantial probability that death or serious physical harm could result, and where the potential hazard was known or should have been known, and yet the work activity was continued, regardless of the existence of the potential safety hazard.

POINTS OF CONTACT

EMERGENCIES (Medical Assistance, Fire, Flooding, Emergency Spill Response, etc.):

When using a telephone connected to a government phone system:	911 except
Kauai	422-4333
Guam	333-2092
Naval Base Coronado/Naval Air Station North Island (NBC/NASI)	9-911
Naval Base Coronado/San Clemente Island (NBS/SCI)	9-911
Naval Base Point Loma/ Submarine Base (NBPL/SUBASE)	9-911
Hawthorne Army Ammunition Plant	7-911

SAFETY REQUIREMENTS FOR CONTRACTORS AND SUBCONTRACTORS

Naval Munitions Command Guam	333-2092 (or x2093, 2094, 2096, 2097)
Cell Phones:	
When using a cell phone (Puget Sound Area)	360-396-4444
When using a cell phone (San Diego Area):	
• NBC/NASNI	619-545-0612
• NBC/SCI	619-545-0612
• NBPL/SUBASE	619-221-5260
• Naval Base San Diego (NBSD)	619-556-7615
When using a cell phone (Oahu)	808-471-7117
When using a cell phone (Kauai)	808-335-4333
When using a cell phone (Guam)	671-333-2092
When using a cell phone (Hawthorne)	775-945-7911

SAFETY & ENVIRONMENTAL MANAGERS

Occupational Safety and Health Officer (NUWC Division Keyport)	360-396-2462
Asbestos Program Manager	360-315-3833
Confined Space Program Manager	360-396-2013
Facilities Support Division (Building 206)	360-396-2358
Fall Protection Program Manager	360-396-2013
Hazardous Material Manager	360-396-5438
Hazardous Waste Manager	360-396-2320
Explosives Safety Officer (NUWC Division Keyport)	360-396-2396
Explosives Safety Officer (Naval Munitions Command Guam)	671-349-9294
Explosives Safety Officer (Naval Munitions Command Hawaii)	808-471-1111 x131
Explosives Safety Officer (Hawthorne Army Ammunition Plant)	775-945-7030
Radiation Safety Officer	360-396-5572
Assistant Radiation Safety Officer	360-396-2176
Hot Work/Burn Permits (Federal Fire)	360-396-2614
Federal Fire (Cell Phone)	360-340-1336
Weight Handling Program Manager (Ashore)	360-396-4786/621-3223
Weight Handling e-mail (Ashore)	KYPT_WA_Crane_Safety_HelpDesk@navy.mil
Shipboard Crane Officer (Afloat)	360-396-9190
Weight Handling Equipment Design Agent (WHEDA)	360-396-7566
NUWC Keyport Safety Office e-mail address:	KYPT_SafetyHelpDesk@navy.mil
On-Site Safety POC San Diego	619-545-0652
On-Site Safety POC Hawaii	808-472-1704
On-Site Safety POC Kauai	808-335-4602
On-Site Safety POC Guam	671-343-2413
On-Site Safety POC Hawthorne, Nevada	775-945-7030

Definitions

Competent Person: As related to excavation, trenching or shoring work, the contractor's "competent person" means one who is capable of identifying existing and predictable hazards in the surroundings, or working conditions which are unsanitary, hazardous or dangerous to employees, and who has authorization to take prompt corrective measures to eliminate them.

Confined Space: A confined space is a space that is large enough for a person to enter, that has limited means for entry or exit, and that is not designed for continuous occupancy. Examples include tanks, silos, storage bins or hoppers, utility vaults, and pits.

Contracting Department: The department at NUWC Division, Keyport that issues contracts for work to be performed by a contractor.

Contractor: An entity or agency contracted by NUWC Division, Keyport to perform the installation or maintenance of equipment, or the renovation or construction of a building, room or space on NUWC Division, Keyport property.

Embedded Contractor Employee: Multiyear contractor employees that are usually co-located in work spaces with government employees providing technical, administrative, production, and supply support to NUWC Division, Keyport.

Lockout/Tagout: A program used to ensure that employees are protected from sources of potentially hazardous energy. The program requires that hazardous energy sources be identified and locked and tagged-out before work is done on the system(s).

Navy Contractor: A non-Federal employer engaged in performance of a Navy contract, whether as prime contractor or subcontractor.

Operational Risk Management (ORM): The Navy's primary process to assess the potential of potential for risk and failure. ORM is a decision-making tool used to increase operational effectiveness by identifying hazards and reducing the risk associated with each hazard, which in turn greatly increases the probability of mission success.

Permit-required confined space: A permit-required confined space is a confined space that contains potential or known safety hazards that must be dealt with prior to or during entry to assure the safety of those employees performing the work.

Qualified Person: An individual who has specialized training in hazard recognition, control, and abatement. For fall protection, this includes competent and qualified persons, for confined spaces this includes industrial hygienists, marine chemists, and gas-free engineers/technicians, for respirator use this includes a company designated program administrator, for electrical systems this includes licensed electricians, and for

SAFETY REQUIREMENTS FOR CONTRACTORS AND SUBCONTRACTORS

lasers, this includes a laser safety officer.

SDS: The safety data sheet that replaces the material safety data sheet under the Globally Harmonious System of Classification and Labeling (GHS) system.

Contracting Officer Representative (COR), Technical Points of Contact (TPOC), or Contracting Officer: The individual(s) that have been assigned duties related to oversight or coordination of work performed by a contractor as defined in this program.

Acronyms

A&E	Arms and Ammunition
CFR	Code of Federal Regulations
CO	Commanding Officer
COR	Contracting Officers Representative
EAP	Emergency Action Plan
ERP	Enterprise Resource Planning
ESO	Explosives Safety Officer
ESMP	Explosives Safety Management Program
GFE	government furnished equipment
GFM	Furnished Material
GHS	Globally Harmonious System of Classification and Labeling system
HAZCOM	Hazardous Communication
LOTO	Lockout/Tagout
NBK	Naval Base Kitsap
NSLC	Naval Sea Logistics Center
ORM	Operational Risk Management
OPSEC	Operations Security
OSHA	Occupational Safety and Health Administration
PEL	Permissible Exposure Limit
PHDA	Pressure Hardware Design Agent
PPE	Personal Protective Equipment
SDS	Safety Data Sheet
TPOC	Technical Points of Contact
TYCOM	Type Commander
XO	Executive Officer

SECTION 2

COR and TPOC Roles and Responsibilities

CORs and TPOCs have a multifaceted role, one of which is to ensure that contractors are apprised of known hazards that they will likely encounter because of the work they are being tasked to perform. Also, contractors are required to: comply with Federal and state safety and health regulations, ensure that their activities do not create hazards to NUWC Division, Keyport personnel, and in many cases comply with Navy policy as it pertains to explosives and industrial safety. Appendix A contains a checklist helpful to CORs, TPOCs and management of service contracting efforts.

General Requirements

The contractor will submit a comprehensive written safety program covering all aspects of onsite and applicable offsite operations and activities (remote work location such as the ranges) whenever any work involves those programs listed under the Specific Program Requirements (Asbestos and Suspect Asbestos Containing Building Materials, Lead-containing Building Materials, Toxic Metals, and Operations Generating Hazardous Atmospheres, Confined Spaces, Hazard Communication, Energy Control (Lockout/Tagout), Trenching and Excavations, Hot Work, Fall Protection, Explosives/Ordnance, Weight Handling, Ionizing Radiation). For these programs, the contractor will conduct an independent assessment of the workplace to determine if hazards are present, or are likely to be present, which necessitate the use of PPE. The contractor will verify that the required workplace hazard assessment has been performed through a written certification that identifies 1) the workplace evaluated; 2) the name of the person certifying that the evaluation has been performed; 3) the date(s) of the hazard assessment; and, 4) an explicit statement in the document that shows it as a certification of hazard assessment and make this information available to the COR, TPOC, or Contracting Officer.

The COR, TPOC, or Contracting Officer will inform the contractor of the following:

- Ensure all contractors are informed of NUWC Division, Keyport's expectations regarding safety compliance and the control of worksite hazards by ensuring that proper housekeeping is practiced, all debris is removed at project completion, and that no workplace hazards are created by the project due to incomplete demolition, unfinished work, or improperly terminated utilities.
- Method for obtaining access to SDSs for hazardous chemicals present in the contractor's work area.
- Information about the HAZMAT labeling system used in the work area.
- Emergency procedures that the contractor is to follow in the event of accidental exposures or releases of hazardous chemicals (the building EAP).

Radiation

The selection and use of radiation-producing equipment, tooling, or the use of radioactive sources invoke many controls and reporting requirements that can adversely affect NUWC mission capabilities if not properly established and followed. As such, any contract or purchase agreement that procures or that will, use radiation producing devices or materials are required to be reviewed and approved by the Radiation Safety Officer (RSO) before contract award. The following list identifies the type of items requiring RSO review:

- Welding rods containing thorium (i.e., thoriated tungsten electrodes).
- Any metals or alloys containing thorium or uranium (including depleted uranium).
- Any chemicals or hazardous materials containing radioactive material (i.e. thorium, uranium, radium, etc.).
- Radiographic x-ray machines and cabinets.
- Gamma-ray radiographic sources (i.e., Cobalt-60, Iridium-192).
- X-ray fluorescent (XRF) and x-ray diffraction analyzers.
- Electron accelerators.
- Open and enclosed beam x-ray systems.
- Electron beam welding machines.
- Klystron and cathode ray tubes.
- Gas chromatographs with radioactive components (i.e. Nickle-63 electron capture detectors).
- Exit signs containing tritium (Hydrogen-3).
- Static eliminator devices (i.e., wands, air nozzles, fans, etc.) containing any radioactive materials (i.e., Polonium-210).
- Smoke detectors are containing radioactive materials (i.e., Americium-241).

Contractors performing work in Buildings 5000/5003, 82, 98, and 206 should be informed that there are radiation operations in these locations and that the contractor can request a hazard briefing. If so, coordinate the briefing schedule with the NUWC Keyport RSO.

To avoid confusion with Navy radiation safety requirements, contractors must not use yellow plastic bags or yellow plastic sheeting. The color yellow is reserved solely for radioactive material. This prohibition includes intense (solid) yellow coloration, semi-transparent yellow coloration, and all other similar and dissimilar types of yellow coloration. In addition to plastic materials, single-use grocery bags, flexible polyvinyl chloride composite textiles, and all other similar and dissimilar types of plastic bags and plastic sheeting are included in this prohibition. Contractors must NOT bring yellow plastic bags or yellow plastic sheeting onto government property during the performance of a contract, unless authorized by NAVSEA 08 to perform work in accordance with NAVSEAINST 9210.12 "U. S. Naval Nuclear Propulsion Program – Radioactive Equipment and Material Associated with Naval Nuclear Propulsion Plants; Control of", paragraph 3.c. The contractor must ensure that all contract service

SAFETY REQUIREMENTS FOR CONTRACTORS AND SUBCONTRACTORS

providers (including both subcontractors and all employees, no matter the employer) do NOT bring yellow plastic bags or yellow plastic sheeting onto government property during the performance of a contract, unless authorized. Contact the contracting officer for questions regarding NAVSEAINST 9210.12.

Asbestos

Ensure all projects/contracts that could potentially disturb asbestos-containing materials are reviewed by the Asbestos Program Manager. Asbestos was commonly used in pipe lagging, roofing materials, building siding, in floor tiles, and ceiling tiles. The buildings listed in Tables 1 thru 4 are known to have PACM or ACM. Any work that disrupts, penetrates, or requires removal of flooring, ceilings, roofing, siding, thermal system insulation (pipe lagging) could potentially expose the contractor and NUWC Division, Keyport personnel to asbestos hazards. The specific location and type of asbestos bearing material is available from the Asbestos Program Manager and will be included in the contract to inform the contractor of the hazard:

Table 1						
NUWC DIV Keyport & Bangor Annex Bldgs. with asbestos containing materials						
	48	84	106	207	820	5094
6	73	85	137	233	5000	5095
12	74	91	144	467	5090	7246
15	80	93	185	478	5091	7717
38	81	98	198	489	5092	7718
40	82	105	206	514	5093	7719
Table 2						
NUWC DIV Keyport detachment Hawaii Bldgs. with asbestos containing materials						
	133	167	171			
Table 3						
NUWC DIV Keyport detachment San Diego Bldgs. with asbestos containing materials						
Table 4						
104-1	104-6	49-10	49-15	49-20	50-15	104-11
104-2	104-7	49-11	49-16	49-21	50-27	104-12
104-3	104-8	49-12	49-17	49-30	50-40	104-13
104-4	104-9	49-13	49-18	49-31	50-41	104-14
104-5	104-110	49-14	49-19	49-32	75-11	105-20

- The COR, TPOC, or Contracting Officer will provide the contractor with a copy of an asbestos inspection report specific to their work and the materials that are to be disturbed.
- Where the construction documents, specifications, or drawings for a project detail asbestos locations within the work area, these documents will serve in lieu of the asbestos inspection report.

Unless qualified, general contractors that will be removing PACM or ACM will use the services of a qualified asbestos abatement subcontractor to ensure that proper methods

SAFETY REQUIREMENTS FOR CONTRACTORS AND SUBCONTRACTORS

and procedures are followed by 29 CFR 1910.1001, "Asbestos."

For those occasions where asbestos will be removed as part of the contract, ensure the building occupants are notified of the schedule, nature of the work, and precautions to follow. Coordinate the dissemination of this information with the Asbestos Program Manager.

Abrasive Blasting, Sanding, and Painting

Contractors providing services that involve abrasive blasting, paint removal, surface profiling using sanders/grinders, and spray paint can encounter toxic metals and coatings presenting health hazards to their employees. Ensure that the Safety Office before contract award so that known hazards can be included in the contract reviews all contracts.

Where contractors are likely to encounter toxic metals (such as lead, cadmium, mercury, beryllium, chromium-VI, and arsenic) and liquids/gases (such as methylene chloride, formaldehyde, and benzene), the contractor will perform an independent assessment of worker exposures using a qualified person. The contractor will not use sand as an abrasive blasting media due to the health hazards that silica can present to the NUWC Division Keyport workforce. The contractor will assess and monitor (in accordance with OSHA standard 1910.94, Subpart G, Ventilation, any government furnished equipment or government-furnished material (GFE/GFM) used for implementing engineering and administrative controls (ventilation, breathing air, shower facilities, sensors, etc.) and notify the COR, TPOC, or Contracting Officer whenever the GFE/GFM fails to meet OSHA requirements and recommend an alternative solution for continuation of work, if feasible. A copy of the analytical report(s) for any air samples taken during the work should be included as a deliverable to the COR, TPOC, or Contracting Officer, upon request.

For contracted work that is associated with industrial operations and production processes, the COR, TPOC, or Contracting Officer may obtain any available information regarding the location of lead and other toxic metals by contacting the NUWC Division, Keyport Safety Office at 360-396-5572. A toxic metal report may, at the discretion of the Contracting Department, be prepared by a qualified consultant to perform the required inspection, survey, and sample analysis. This information is needed to provide an adequate scope of work detailing information on the actual toxic metal content for some projects. Provide a copy of this report to the NUWC Keyport Safety Office, C/0241024 upon receipt.

Where lead-containing materials will be disturbed or removed during work, the COR, TPOC, or Contracting Officer will contact the NUWC Division, Keyport Environmental Office at 396-5682 to determine disposal requirements. If the lead-containing materials constitute hazardous waste, disposal of these materials will be coordinated with the NUWC Division, Keyport Environmental Office. The disposal requirements will be established during the design of the project in accordance with the NUWC Division,

Keyport's Contractors Guide to Environmental Compliance.

Fatality Prevention Programs

Certain programs by their nature are designed to control and manage hazards that pose a serious potential for death to workers. Among these are; Fall Protection, Confined Space Entry, Electrical Safety, Energy Control or Lockout/Tagout, Weight Handling Equipment (cranes, etc.), and Explosives Safety. The following identifies contact deliverables to the COR, TPOC, or Contracting Officer that will be included in the contract:

*Provide copies or originals of all deliverables to the Safety Office.

Confined Space: When NUWC Keyport arranges to have a contractor perform work that involves entry into a permit-required confined space, the COR, TPOC, or Contracting Officer will:

- Inform the contractor that the workplace contains permit spaces and that permit space entry is allowed only through compliance with a permit space program meeting the requirements set forth by 29 CFR 1910.146, "Permit-required Confined Spaces," for ASHORE spaces and 29 CFR 1915 Subpart B, "Confined and Enclosed Spaces and Other Dangerous Atmospheres in Shipyard Employment," for maritime spaces.
- Apprise the contractor of the elements, including any hazard(s) identified and NUWC Division, Keyport's experience with the space that makes it a permit-required confined space.
- Apprise the contractor of any precautions or procedures that NUWC Division, Keyport has implemented for the protection of its employees in or near permit spaces where contractor personnel will be working.
- Notify the Confined Space Program Manager when both NUWC Division, Keyport personnel, and contractor personnel will be working in or near permit spaces.
- Debrief the contractor after the entry operations regarding the permit space program followed and any hazards confronted or created in permit spaces during entry operations.
- Provide a copy of NUWC Division, Keyport's Confined Space Entry Program to the contractor.
- Provide adequate barriers and guards or traffic control as appropriate to prevent unauthorized personnel from entering the immediate work area.

Information on NUWC Division, Keyport's Confined Space Program and information on specific confined spaces will be obtained by contacting the NUWC Division, Keyport Confined Space Program Manager at 360-396-2013.

Weight Handling: When NUWC Division, Keyport arranges to have a contractor perform work that involves the use of weight handling equipment and machines, the COR, TPOC, or Contracting Officer will:

SAFETY REQUIREMENTS FOR CONTRACTORS AND SUBCONTRACTORS

- Include the minimum requirements of NAVFAC P-307 paragraph 11.1 in contracts, ensure compliance with contract requirements, provide oversight of contractor crane and rigging operations, and provide oversight of contractor accident investigations and corrective actions. The degree of oversight shall be based upon the risk to personnel and property; however, oversight shall be performed at least once and the minimum periodicity shall be not more than every 30 days. When critical lifts are involved, oversight periodicity shall be not more than every 14 days. NAVFAC P-307, figure P-2, provides a checklist that shall be used during oversight of contractor crane and rigging operations. Copies of NAVFAC P-307, figure P-2, shall be kept on file for one year. Personnel performing oversight shall complete the Contractor Crane Awareness training course (see NAVFAC P-307 section 7) or the NAVFAC 40-hr Contract Hazard Awareness Training Course. Contractor crane and rigging operations oversight shall be performed by government personnel using the checklist found in NAVFAC P-307, figure P-2.
- For contractor crane operations that present no exposure and no risk to Navy personnel (uniform or civilian), Navy property, and the general public, (i.e. only contractor exposure and risk, such as a controlled area where a new building is being constructed), contracting officer oversight may be reduced at the contracting officer's discretion.
- The contracting officer shall notify the Weight Handling Program Manager of any WHE accident, near miss, or unplanned occurrence upon notification by the contractor. Additionally, the contracting officer shall notify the Navy Crane Center, by e-mail (m_nfsh_ncc_accident@navy.mil), of any accident involving a fatality, in-patient hospitalization, overturned crane, collapsed boom, or any other major damage to the crane or adjacent property as soon as possible, preferably within 8 hours of notification by the contractor. For all other accidents, near misses, and unplanned occurrences, notify the Navy Crane Center as soon as practical but no later than three working days after the accident. Although the contractor is ultimately responsible for WHE accident, near miss, and unplanned occurrence reporting, contracting officers or their designated oversight groups are highly encouraged to submit contractor crane near misses when identified during periodic oversight.
- The contracting officer shall provide the Navy Crane Center and Keyport a copy of every accident and near miss report, regardless of severity, upon receipt from the contractor. These requirements are in addition to any notification and reporting requirements promulgated in OPNAVINST 5100.23 and command instructions. When the contracting office is not in the local area, the contracting officer shall designate a local representative to ensure compliance with the above noted requirements. The contracting officer or designated weight handling representative shall sign all crane and rigging accident and near miss reports to indicate that they are satisfied that the contractor's investigation and corrective action are sufficient.
- For construction contracts, the forms in USACE EM-385-1-1 are acceptable in lieu of appendix P, figure P-2.

SAFETY REQUIREMENTS FOR CONTRACTORS AND SUBCONTRACTORS

Fall Protection: NUWC Division, Keyport (including the Detachments) has locked access control on all building roof-access ladders. The COR, TPOC, or Contracting Officer is responsible for coordinating contractor roof access with the Building Manager or Command Dispatch Center, as appropriate. Ensure the contractor secures the ladder guards after work each day and upon contract completion. Verify the contractor has returned the key to either the Building Manager or Command Dispatch Center, as appropriate. Direct liaison between the contractor and the Building Manager or the Command Dispatch Center is authorized for recurring access, after the process is established.

Explosives Operating Buildings

Contracted work of any kind that occurs at the following buildings will be reviewed by the Explosives Safety Officer before contract award to ensure that work conforms to existing site approvals, personnel limits are not exceeded, and emission controls are in place by Hazards of Electromagnetic Radiation to Ordnance (HERO) standards.

Buildings:

116	489	7719
117	514	1002
137	893	Pier 1
144	950	KB Dock
185	7718	

Additionally, any contract work being performed at the NUWC Division, Keyport Ordnance Annex at Bangor, whether or not it involves explosives or energetic material, will be reviewed by the NUWC Division, Keyport Explosives Safety Officer or his designated representative before the start of work.

All contracts involving work related to explosives or energetic materials as defined by NAVSEA OP 5, the NUWC Division, Keyport Explosives Safety Officer or his/her designated representative will review "Explosives Safety Ashore," before the start of work.

Industrial Ventilation

If contracted work will be conducted on the roof of a building where fume hood exhausts are located, the COR, TPOC, or Contracting Officer will coordinate access with the Building Manager within the building as necessary to ensure that:

- Fume hoods within, or adjacent to, the work area is shut down,
- No work is in-progress that would generate toxic or hazardous airborne contaminants, and
- All chemicals stored within the fume hoods are capped or otherwise sealed; or

SAFETY REQUIREMENTS FOR CONTRACTORS AND SUBCONTRACTORS

apprise the contractor in writing of the precautions that should be taken to protect their employees while conducting work on, or in proximity to, active fume hood exhausts. Note: This information may be obtained by contacting the NUWC Division, Keyport Safety Office at 360-396-2462.

Embedded Contractor Employees

Contractor firms providing embedded contractor employee support will provide the COR, TPOC, or Contracting Officer with the emergency contact phone number(s), usable 24 hours a day, for the contractor's representative. These phone numbers will be provided to NUWC Keyport Safety Office via e-mail or memo. Embedded contractors are also required to have a safety bulletin board posted in a common area that provides points of contact for safety and health issues as well as the Summary of Work-Related Injuries and Illnesses (OSHA form 300A) and the Job Safety and Health (OSHA form 3165) federal posters, as required by OSHA.

Additionally, in accordance with 29 CFR Part 1904, "Recording and Reporting Occupational Injuries and Illnesses," all contractor firms that provide 1,000 hours or more of embedded contractor service work in any given quarter will provide the following work-related injury and illness information in the format provided below to the COR, TPOC, or Contracting Officer before the end of January of each year:

Note: The following information is only required of contractors that provide services to NUWC Division, Keyport in the Puget Sound geographic area. Contractors providing services outside the Puget Sound area (i.e., San Diego, Hawthorne, Guam, Hawaii, etc.) are exempt from providing the information shown in the table below. Contractors that provide services in multiple geographic areas are to populate the table with only the work performed by their employees providing services (1,000 hours or more per quarter) in the Puget Sound area.

Applicable Contractor Record able Nonfatal Injury and Illness Case Incidence Rates (for use by site-based non-construction participants) (for the applicable contractor's work at NUWC Division, Keyport)						
Name of Applicable Contractor:						
NAICS Code (for applicable contractor's work NUWC Division, Keyport):						
1	2	3	4	5	6	7
Year	Total Number of Employees*	Total Work Hours	Total Number of Injuries & Illnesses	Total Case Incidence Rate for Injuries and Illnesses (TCIR)	Total Number of Injury & Illness Cases Involving Days Away from Work, Restricted Work Activity, and/or Job Transfer	Days Away from Work, Restricted Work Activity, and/or Job Transfer Rate (DART Rate)

SAFETY REQUIREMENTS FOR CONTRACTORS AND SUBCONTRACTORS

Most recent published BLS rate for work performed at NUWC Division, Keyport						
Percent above or below national average						

*Estimated average number of applicable contractor employees at NUWC Division, Keyport.

Note: Enter data into shaded areas.

Forward this information to the Safety Office, Code 1024, and Bldg. 206 by the first week of February for inclusion in the annual occupational safety and health self-assessment.

Contract Deliverables		
Program	Description	Deliverable Item
Fall Protection	Whenever contracted services involve working on roofs, towers, ship masts, or unprotected heights greater than 4-ft.	<ul style="list-style-type: none"> • Company letter identifying fall protection competent person or qualified person • Fall protection procedures and plan: upon request • Company letter: identifying the names of trained individuals
Confined Space	Whenever contracted services involve working in confined spaces	<ul style="list-style-type: none"> • Company letter identifying a qualified person who will test and monitor atmospheric conditions in the confined space • Rescue plan: when Federal Fire Department services cannot be used: upon request
Electrical Safety	Whenever contracted services involve work on exposed energized electrical circuits operating at 30 volts or more	<ul style="list-style-type: none"> • Arc flash hazard analysis IAW NFPA 70E standards when work is required on energized electrical panel circuits where personnel are potentially exposed to live parts (if an analysis was not previously accomplished). <i>Note: panel will be labeled with an arc flash warning label if previously accomplished. Contact Safety Office for verification, as required.</i> • A written statement (for all electrical panels serviced while in an energized state) that the

SAFETY REQUIREMENTS FOR CONTRACTORS AND SUBCONTRACTORS

Contract Deliverables		
Program	Description	Deliverable Item
		panel(s) has(have) been properly labeled with appropriate arc flash hazard information IAW NFPA 70E
Energy Control	Whenever contracted services involves repair and maintenance of systems where the accidental release of energy needs to be controlled.	<ul style="list-style-type: none"> • Copy of contractors energy control or lockout/tagout procedure
Weight Handling Equipment & Machines	Whenever contractor services involves the use of cranes, articulated boom lifts, man-lifts, multi-purpose hoisting machines, material handling equipment (forklifts), construction equipment when used like cranes to lift suspended loads, and any associated rigging equipment used in weight handling operations.	<ul style="list-style-type: none"> • Company letter identifying personnel qualified to operate weight handling equipment/machines and qualified signal persons. • Certificate of compliance (NAVFAC P-307, form P-1) • Annual inspection and load test documentation as well as wire rope or chains certification (cranes only) • Original equipment manufacturer documentation for alternate configuration use • Critical lift plan, as required
Explosives Safety/Ordinance	Whenever contractor services are used to perform maintenance, repair, disassembly, and assembly of ordnance	<ul style="list-style-type: none"> • Company letter identifying personnel authorized (qualified/certified) to handle or physically interact with ammunition and explosives • Qualification/certification and employee training records: upon request

SAFETY REQUIREMENTS FOR CONTRACTORS AND SUBCONTRACTORS

Appendix A

The following checklist is provided to assist the COR, TPOC, or Contracting Officer with complying with the requirements outlined in this program.

Name of Project Manager/Coordinator:	
Work Site(s) and Location(s):	
Applicable Date(s):	
Contractor Name:	
Contractors Representative:	
24-hour phone number:	

Action Required	<input checked="" type="checkbox"/>
Asbestos review required? If yes, ensure available data or an inspection report is provided to the Contractor, or ensure that the construction documents detail the location(s) of asbestos within the work area. Contact NUWC Division, Keyport Asbestos Manager at 360-315-3833 for assistance as needed.	Yes <input type="checkbox"/> No <input type="checkbox"/>
Does the work have the potential for exposure to toxic metals? If yes, ensure available data or an inspection report is provided to the Contractor, or ensure that the construction documents detail the location of toxic metals within the work area. Contact the NUWC Keyport Safety Office at 360-396-2462 for assistance as needed.	Yes <input type="checkbox"/> No <input type="checkbox"/>
Will the work involve the use of ionizing radiation? If yes, ensure the Radiation Safety Officer (RSO) or Assistant Radiation Safety Officer (ARSO) reviews the contract prior to award.	Yes <input type="checkbox"/> No <input type="checkbox"/>
Will the work require a qualified person to evaluate, test and assess hazards? If yes, ensure the contractor has provided the identity of their qualified person in writing.	Yes <input type="checkbox"/> No <input type="checkbox"/>
Will the work involve the handling of explosives/ordnance? If yes, ensure the contractor has provided their qualified/certified personnel in writing.	Yes <input type="checkbox"/> No <input type="checkbox"/>

SAFETY REQUIREMENTS FOR CONTRACTORS AND SUBCONTRACTORS

<p>Will the work involve the use of weight handling equipment? If yes, ensure the contractor has provided their qualified/certified personnel in writing. Notify the Weight Handling Program Manager 10 business days before the contractor's scheduled arrival on base so that government inspection of the equipment and validation of required documentation is accomplished.</p>	<p>Yes <input type="checkbox"/> No <input type="checkbox"/></p>
<p>Will the work require entry into a permit-required confined space?</p> <ul style="list-style-type: none"> • If yes, inform the contractor about known hazards and history of entry operations for each space that they will enter. Contact the NUWC Division, Keyport Safety Office at 360-396-2462 for assistance, as needed. • If yes, the COR, TPOC, or Contracting Officer will debrief the contractor after the work in these spaces is completed. 	<p>Yes <input type="checkbox"/> No <input type="checkbox"/></p>
<p>Will both the contractor and NUWC Division, Keyport personnel be working in or near the permit-required confined space(s)?</p> <ul style="list-style-type: none"> • If yes, ensure that the COR, TPOC, or Contracting Officer or NUWC Division, Keyport supervisor/project lead coordinates entry operations with the contractor to ensure that everyone is aware of any work that is taking place that could affect personnel in the confined space. • If yes, provide a copy of NUWCDIVKPT Confined Space Program to the contractor and require that he or she conform to the requirements of that program. • If yes, at the end of entry operations, obtain a copy of all canceled permits, and send a copy of this information to the NUWC Division, Keyport Safety Office. 	<p>Yes <input type="checkbox"/> No <input type="checkbox"/></p>
<p>Hazard communication: Provide the following to the contractor:</p> <ul style="list-style-type: none"> • Information on precautions and safety procedures that will be followed in the work area. • Access to SDSs for hazardous chemicals located in the work area. • Information regarding the labeling system used in the work area. • Emergency procedures to be followed in the event of accidental exposure or release of hazardous chemicals or materials. <p>Obtain a list of and SDSs for all chemicals that the contractor will be using. Provide a copy to the NUWC Division, Keyport Safety Office for review and approval. Contact the Safety Office and/or Environmental for assistance, as needed.</p> <p>The contractor understands that SDSs will be kept on-site for all chemicals used by the contractor on NUWC Division, Keyport property and that no other chemicals will be brought on-site without prior approval by the COR, TPOC, or Contracting Officer and the NUWC Division, Keyport Environmental Branch.</p>	<p>Yes <input type="checkbox"/> No <input type="checkbox"/></p>
<p>Will work be conducted on the roof of a building where hood exhausts are located?</p> <ul style="list-style-type: none"> • If yes, either coordinate access with the Facilities Branch, NUWC Division, Keyport Safety Office, or the Building Manager to make sure that exhaust hoods in the work area are shut down, or inform the contractor of precautions that should be taken. 	<p>Yes <input type="checkbox"/> No <input type="checkbox"/></p>
<p>Will work by the contractor involve maintenance or repair of electrical or mechanical systems?</p> <ul style="list-style-type: none"> • If yes, obtain a copy of the contractor's lockout/tagout procedures and inform 	<p>Yes <input type="checkbox"/> No <input type="checkbox"/></p>

SAFETY REQUIREMENTS FOR CONTRACTORS AND SUBCONTRACTORS

<p>the contractor of the lockout/tagout procedures followed by NUWC Division, Keyport personnel. Make sure that all NUWC Division, Keyport employees in the work area are aware of the contractor's lockout/tagout procedures.</p> <ul style="list-style-type: none"> For any work scheduled to be performed that will result in work on energized power distribution systems obtain a copy of the Energized Electrical Work Permit. 	
<p>Will work by the contractor involve modifications, additions, or upgrades to electrical power systems where contractor personnel will be required to work on live (energized) circuits of 30 volts or greater?</p> <ul style="list-style-type: none"> If yes, ensure contractor provides arc flash analysis data for power panels/systems and verifies in writing that an NFPA 70E compliant label was affixed to the power panel/system enclosure. 	Yes <input type="checkbox"/> No <input type="checkbox"/>
<p>Will Hot Work Permits be required during the contractors work? If yes, coordinate Hot Work permits with the Regional Fire Inspectors or other designated personnel.</p>	Yes <input type="checkbox"/> No <input type="checkbox"/>
<p>Will the work generate waste? Ensure the contractor understands that any hazardous waste generated during the work will be disposed of in a manner consistent with all applicable state and federal regulations and that prior approval is required for the disposal method and disposal site?</p>	Yes <input type="checkbox"/> No <input type="checkbox"/>
<p>Has the contractor been informed? That it is their responsibility to relay the above information to other contract employees and his or her subcontractors.</p>	Yes <input type="checkbox"/> No <input type="checkbox"/>
<p>Has the contractor been allowed to ask questions and have those questions answered to their satisfaction?</p>	Yes <input type="checkbox"/> No <input type="checkbox"/>