

OPNAVINST 5100.23G

Executive Summary of Changes

CHANGES THROUGHOUT OPNAVINST 5100.23G

- Focused on changes that would improve productivity and save unnecessary costs.
- Focused on changes that support the SECDEF/SECNAV 50% Mishap Reduction initiative.
- Implemented safety parts of recommendations 2-4 and all of recommendations 6-10 in Section C of the Naval Audit Service Report N2004-0034 of 26 Mar 04, "Reducing Lost Work Time Due to on the Job Injuries at Navy and Marine Corps Commands," available at <http://www.hq.navy.mil/navalaudit/>.
- Avoided controversial or complex issues in this proposed update. Any controversial or complex issues that arose were saved for the next update to safety policy ashore.
- Added Regions in sections that discuss Navy activities. We did not replace activities with regions because Navy uses both stand-alone activities and regions to meet shore requirements.
- Changed major claimant to Budget Submitting Office (BSO) and echelon numbers to cardinal numbers vice Roman numerals, e.g. Echelon 2 vice Echelon II, in accordance with Navy Directives format.
- Changed CNET (Chief of Naval Education and Training) to NETC (Naval Education and Training Command) and/or Navy Personnel Development Command (NPDC), as a result of Task Force Excel.
- Changed Assistant Secretary of the Navy (Installations and Environment) (ASN (I&E)) to Deputy Assistant Secretary of the Navy (Safety) to reflect the new Senior Executive position for Safety on the SECNAV staff.
- Changed CNO (N45) to CNO (N09F) and/or Naval Safety Center, depending on the situation, to reflect organizational change of safety within the OPNAV organization. Occupational safety and health was previously under Logistics CNO (N4). Now it is under CNO (N09F) (Special Assistant for Safety) and linked to the Naval Safety Center. In addition, CNO (N45) changed its name from Environmental Protection, Safety and Occupational Health Division to Environmental Readiness Division.
- Changed references to NAVOSH to avoid inference that Navy safety and occupational health is different from other Federal agencies and the private sector.
- Updated References throughout the manual. Specific details on these updates are listed in the individual Chapter summaries below.
- The Directives Working Group believes that these updates will have broad support from the Shore Safety Committee.
- Most, but not all, chapters were updated. The following chapters were minimally modified, by updating the References, and changing CNO (N45) to CNO (N09F):
 - 17, Asbestos Control;
 - 20, Personal Protective Equipment;
 - 25, Polychlorinated Biphenyls (PCBs);
 - 27, Confined Space Entry Program;
 - 28, Bloodborne Pathogens; and
 - 31, Weight Handling Safety.
- Chapter 26, Man-Made Vitreous Fibers, was eliminated; see notes on Chapter 26 below.
- Chapter 13, Navy Occupational Safety and Health Cost Data; was eliminated; see notes on Chapter 13 below.

- Two new chapters were added: A new Chapter 13, Fall Protection Program and a new Chapter 26, Chemical-Biological-Radiological-Nuclear-Explosive (CBRNE) Events.

PROPOSED CHANGES TO COVER LETTER TO OPNAVINST 5100.23G

Para 2: This instruction no longer takes precedence over OPNAVINST 5102.1D because OPNAVINST 5102.1D has integrated mishap investigation, reporting, and recordkeeping requirements into this policy document, chapters 3 and 6. This paragraph reflects this improvement.

Para 5: All of the reports and forms have been reviewed. The *Dispensary Permit Form* was revised significantly and its title changed to *Medical Referral Form*. Further details are provided in Chapter 14.

Para 5.a: The following reports were eliminated from OPNAVINST 5100.23G:

- Safetygram - OPNAV 5100.23 (Moved to OPNAVINST 5102.1D).
- Annual Report of Occupational Injuries and Illnesses - 1146 DoL (Moved to OPNAVINST 5102.1D).
- Safety Investigation Report (SIR) – OPNAV 5100-11 (Moved to OPNAVINST 5102.1D)

Added a section on useful websites to find Navy forms for OPNAVINST 5100.23G.

Para 5.b: Added a section on useful websites to find DoD forms for OPNAVINST 5100.23G.

Para 5.d: The following forms have been eliminated:

- All forms previously available through normal supply procurement procedures have been eliminated because they are available on websites:
 - Chronological Record of Medical Care (SF 600).
 - Claim for Reimbursement Form (SF 1164) (No longer referenced in OPNAVINST 5100.23G).
 - Cashier Reimbursement Voucher (OF 1129) (No longer referenced in OPNAVINST 5100.23G).

Para 5.e: Provided the web link for OSHA Form 174, Material Safety Data Sheet.

Para 5.g: Eliminated NEHC forms because they have been moved to the Industrial Hygiene Field Operations Manual, NEHC Technical Manual.

Note: The Hazardous Material Chemical Label is available in two sizes and is reflected with two forms numbers (DD 2521 and DD 2522).

Chapter 1 – INTRODUCTION

Para 0103.a and f: Changed CNO (N45) (Environmental Readiness) to CNO (N09F) (Special Assistant for Safety).

References: Ref 1-2 DODI 1000.3 of 29 Mar 79 is no longer required and cancelled by <http://www.dtic.mil/whs/directives/corres/canx/c10003d.pdf/>.

Chapter 2 – RESPONSIBILITIES

Para 0203 CNO Responsibilities: Updated titles and codes, making CNO (N09F) (Special Assistant for Safety)/COMNAVSAFECEN responsible for program policy, and co-chair of the Navy and Marine Corps Safety Council. Eliminated reference to the NAVOSH Quality Council.

Rationale: Safety on the CNO staff was transferred from CNO (N45) (Environmental Readiness) to CNO (N09F) (Special Assistant for Safety)/Naval Safety Center.

Para 0205.a(1)(a): Added Expeditionary Warfare responsibilities.

Para 0206.c: Added “and occupational health” to COMNAVSAFECEN responsibilities for safety. Added in Para 1206.c(6) the requirement to make available a repository of accident, injury, illness and claims data. Deleted Para 1206.c(10) referring to provision of automated data processing support to the Naval Inspector General (NAVINSGEN).

Para 0206.d(1) and (2): Clarified responsibilities of NAVOSHENTRACEN for training courses.

Para 0206.e: Deleted NETC from heading. Deleted Paras. (3) and (4) referring to the provision of educational materials and serving as a central source of safety course delivery and information.

Para 0206.f: Redefined the NAVINSGEN as coordinator of inspection program aspects for Navy shore activities and deleted the conduct of oversight inspection activities. Removed the use of the Process Review and Measurement System (PR&MS) to determine safety program continuous improvement actions and cost avoidance initiatives. Directs NAVINSGEN to maintain close liaison with the President, Board of Inspection and Survey (PRESINSURV) and with cognizant OPNAV sponsors (N09F, N4, N46, N76, N77 and N78).

Para 0207: Inserted a general direction that the safety program is to be implemented, directed and controlled through the chain of command. Inserted references to 0207.d, 0303.a, and 1202 for guidance. Directed shore regions, activities and commands, commanders, commanding officers, directors and officers in charge to implement the listed items, (a) through (z).

Para 0207.a: Recognized OSHA’s Voluntary Protection Program (VPP) as an equivalent management system. Added a web-link for new guidance on implementing Process Review and Measurement (PR&M). For further information or clarification please contact the PR&MS/VPP Working Group Chairperson, Darrilyn Cranney at (360) 315-5430 or email Darrilyn.Cranney@navy.mil, or contact any of the PR&MS/VPP Working Group members (see below).

Para 0207.c: Changed safety to a small “s” and added safety “function” to establish a broader audience, i.e. military members who may be assigned safety as a collateral duty.

Para 0207.g: Changed requirement to ensure reporting compliance from Chapter 14 to reference 2-14, OPNAVINST 5102.1D.

Para 0207.i: Deleted reference to the PR&MS directive to measure and recognize superior and deficient safety performance.

Para 0207.q(9): Added “enforcing” to the requirements for personal protective equipment.

Para 0207.x: Updated the annual occupational injury/illness summary report to require a signature by the CDR, CO, or OIC; changed the annual summary from a fiscal to a calendar year; and lengthened the posting period to three months, all in accordance with the revised 29 CFR 1904.

Para 0208.a: Updated Navy civilian policy on disciplinary action from CPI 752 to the DON Civilian Human Resources Manual.

Reference: Updated DoD Military Standard for System Safety from 1993 to 2000. Added DON Civilian Human Resources Manual on Disciplinary Actions and web link, which replaced CPI 752 previously described in Para 0208.a. Updated OPNAVINST 3500.39A to B, to 30 July 2004. Added OPNAVINST 5102.1D/MCO P5102.1B Mishap Investigation, Reporting and Recordkeeping.

Appendix 2-A: Added the web link for the DoD Occupational Safety and Health Program Form DD 2272 November 2000 (Poster).

Appendix 2-B Supervision Process Model Added Component #2-1 and 3: Added Workers’ Compensation as an expectation for the work unit, and Lost Work Time as an element of information needed to assess performance and clarified recordkeeping requirements for first aid. Clarified that the Navy Injury and Illness Rate applies to both military and civilian. Moved the

reference to the development of an Injury Cost Control Process Model from #7 to where it was mentioned in #5.

Rationale: Recommendations 6-10, Section C, of the Naval Audit Service Report. Added Notes to 2-B #1 to explain an anticipated drop in the Command’s IIR due to changes in 29 CFR 1904 and added a list of performance metrics that are maintained by the Naval Safety Center.

VPP Working Group Membership

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Chapter 3 – ORGANIZATION AND STAFFING

Para 0302.e: Clarified role of Echelon 2 Command safety office to include performing management evaluations and reviewing subordinate region/activity PR&MS self-assessments.

Para 0303: Described the new Echelon 2 for Commander Navy Installations Command (CNIC), which was part of the Oct 2003 Navy reorganization. Clarified the regional host’s organizational and reporting requirements. Mandated that safety at shore activities report to the commanding officer. Defined and provided examples of Mission Safety and BOS (Base Operating Support) Safety.

Para 0303.a (1): Clarified that only those shore activities that do not receive Base Operating Support (BOS) safety services are responsible for having a safety organization.

Para 0303.c: Replaced “Direct Programs” with “Core Programs” and deleted “Indirect Programs.”

Para 0303.c (1)(r): Recognized OSHA’s Voluntary Protection Program (VPP) as an equivalent management system. Added wording to ensure the safety department’s participation on Workers’ Compensation Working Groups.

Rationale: Per the Naval Audit Service Report, recommendation #4 (partial).

Para 0304: Explained CNIC and Regional Safety Organizations. Regarding written agreements (ISSAs), clarified that administrative control of the regional organization rests with the Regional Headquarters Command.

Para 0304.c: Added Special Boards for all safety and occupational health professionals.

Reference: Added the date of the Career Development Plan guidance (Sep 97). Added OPNAVINST 5102.1D/MCO P5102.1B Mishap Investigation, Reporting and Recordkeeping.
Appendix 3-A: Updated Job Hazard Category D for active ships.

Chapter 4 – COUNCILS AND COMMITTEES

Para 0402: Changed the heading to “OSH Councils and Committees,” deleting inclusion of Total Quality Leadership Boards Ashore.

Para 0402.d: Changed paragraph to describe the new Navy and Marine Corps Safety Council, established in Nov 03 by SECNAV to drive mishap reduction initiatives. Council oversees four committees: Afloat, Aviation, Ground Tactical and Shore Committees. The previous NAVOSH Quality Council described in this paragraph was absorbed into the Navy and Marine Corps Safety Council on the shore and afloat committees.

Para 0402.f: Clarified that activities that provide their own safety support shall establish their own Safety Councils. Specified the Council chair assignments for region and activity OSH Councils. Clarified participation in Regional Safety Councils and distribution of Council minutes.

Para 0402.h: Exempted activities that are primarily administrative in nature from the OSHA council requirements.

Para 0404: Replaced NAVOSH Quality Council paragraph with Shore Safety Committee paragraph, including membership, examples of working groups, and overall goal to lead initiatives to reduce mishaps and associated costs to Navy and Marine Corps.

Para 0404.b: Added a role for various activities to serve as advisors, as needed.

Reference: Added SECNAV letter and charter that established the Navy and Marine Corps Safety Council.

Chapter 5 – PREVENTION AND CONTROL OF WORKPLACE HAZARDS

Background: Building safety and health into the acquisition process¹ can provide much greater savings than retrofit after the fact. The proposed changes in this chapter support the DoD/SECNAV 50% Mishap Reduction initiative and provide guidance for safety professionals to support DoD and Navy requirements (DODI 5000.2, OPNAVINST 5100.24 and draft SECNAVINST 5000.2C) for integration of safety into acquisition. The proposed changes better address acquisition and update relevant references. Other recommended changes describe the link between safety and efficiency in justifying hazard abatement (section 501), cross link training and experience requirements for safety professionals involved with hazard abatement (section 502), and reiterate the limitations of personal protective equipment (PPE) in the context of hazard abatement. Command responsibilities are amended slightly to provide for reporting of hazards that affect equipment and systems used by multiple organizations (section 503).

Para 0501: Discussion: Added a paragraph to emphasize the role of prevention and control of workplace hazards with benefits and references cited. Expanded the description of the DoD/Navy acquisition system as responsible for identifying risks and developing equipment solutions to these threats. It explains that hazard control is most economically accomplished if incorporated

¹ * Acquisition is the process of needs identification, capabilities/requirements description for new and modified defense systems; research, development and procurement of new systems, platforms and support equipment.

into the acquisition process, rather than expensive retrofit. Updated references and provided a summary of requirements.

Para 0501: (3rd Para): Reemphasized the hierarchy of controls, with cross-reference to OSHA regulations that consider PPE only as an acceptable solution, if other controls are infeasible.

Para 0501: (New 4th Para): Added a new paragraph to describe the link between safety and efficiency and explain the use of cost-savings and cost avoidance as justification for implementation of hazard abatement measures.

Para 0502: Principles of Hazard Control. Added a cross link to Chapter 3 (organization and staffing) and OPM standards for training to reinforce the requirement for specialized training and experience of safety professionals and industrial hygienists with regard to control of workplace hazards.

Para 0502.a(1)(b): Replaced an example of welding process substitution with one on installing platforms for routine maintenance.

Para 0502.c (1) and (2): Switched dilution method with local exhaust ventilation (LEV) method to emphasize the preferred use of LEV for controlling potentially hazardous airborne substances.

Para 0502.e: Added clarification on the limitations of personal protective equipment (PPE). This reinforces the mandate for hazard abatement by explaining the regulatory and technical limitations of protective equipment.

Para 0503.a: Added legacy mishap data to the information to be identified and evaluated in the acquisition process.

Para 0503.b: In section on Application of Hazard Control Principles, clarified that safety and health professionals should not just review plans and specs after their development, but should be involved in all phases of facility planning, design, construction and acceptance processes.

Rationale: Review of 90-100% design plans and specifications is too late in the planning, design, and construction process to make significant changes. Safety and Health personnel need to be a part of planning and design teams to ensure that safety and health are integral to the process. Added safety personnel should also participate in pre-acceptance inspections to ensure compliance with OSHA and Navy standards. Changed the NAVFAC specs to Unified Facilities Guide specifications (UFGS). Deleted the last two sentences: “Commercial software is available...”

Rationale: This referred to the Automated Hazard Analyses (AHAS) system developed by the CNO P&E QMB around 1997. AHAS was cancelled and no longer needed.

Para 0503.d Purchasing/Contracting Procedures: Divided this section into two separate sections and expanded the section on contracting procedures to include applicable safety and health requirements/standards, Contracting Officer and Safety/Health personnel roles and responsibilities, and a short section on multi-employer issues.

Rationale: The increased presence of contractors performing a wide variety of functions on ashore facilities and onboard vessels necessitates that contractor safety and health be clearly defined. The update incorporates some of the language from CNO ltr 5100 Ser N454G/1U595518 of 22 June 01, Subj. “Safety and Occupational Health Responsibilities in Contract Management.”

Para 0503.g: Deleted “Acquisition program managers” to clarify that the responsibility is that of the regions and activities to use feasible engineering controls.

New Para 0504.j: Added a review and concurrence role for self-assessments and improvement plans and their annual implementation review to the region/activity Safety Council, where it exists, and to the commander, commanding officer, or officer in charge where activities do not require a Safety Council.

Para 0505: Deleted “comprehensive” from the self-assessment performance. Added additional guidance to be found on the Naval Safety Center website. Added a requirement for headquarters commands to develop an annual self-assessment of their Command safety program. Deleted

requirement for Immediate Superior in Commands (ISICs) to review self-assessments, while retaining that requirement for Headquarters commands.

Para 0505.c: Deleted requirement for headquarters commands to submit their plans to CNO and the NSC as these reports are available on the NSC website.

New Para 0506: Acquisition Program Assessment and Reviews: Described the acquisition program review process designed to ensure risk management, including evaluation of safety and health issues. The section identified Programmatic Environmental Safety and Health Evaluations (PESHEs), system safety plans, and Integrated Logistics Assessments (ILAs) as documents or processes that provide for program assessment and review. This information is inserted immediately after Para 0505, Occupational Safety and Health Program Self-Assessment and Improvement.

Para 0506 (renumbered 0507): Responsibilities (due to addition of new Para 0506, above).

Para 0507: Responsibilities: Removed the term “program” and the redundant references to “Acquisition Program Manager, activities and regions” as responsible for control measures. The prior edition provided redundant listing of entities responsible for implementing control measures. Most sections began “*Activities may...*” and then described the category of controls that could be used for hazard abatement. (The hierarchy of controls includes substitution, isolation, administrative control, PPE).

Para 0507.a (3): Added “and/or evaluate” to BUMED’s responsibility to identify equipment, facilities and materials that may adversely affect the health of all Navy employees.

Para 0507.b: Added provision of mishap data information from legacy systems and appropriate recommendations to the Commanders of Headquarter Commands’ responsibilities.

References: Added or updated 10 references and added websites, where available:

- OPNAVINST 3500.39A, of 3 Apr 1997, Operational Risk Management.
- Operation of the Joint Capabilities Integration and Development System (CJCSM 3170.01).
- SECNAV Acquisition Policy (SECNAVINST 5000.2B) (The updated 5000.2C version should be released in the immediate future. It will be cited, if it is issued before publication of OPNAVINST 5100.23G. Draft SECNAVINST 5000.2C provides strong support for integration of safety into the systems engineering process).
- DON Safety, Mishap Prevention, Occupational Health & Fire Protection Policy (SECNAVINST 5100.10H). (Requires integration of system safety into the acquisition and MILCON processes).
- CNO System Safety Policy (OPNAVINST 5100.24).
- Navy Career Development Policy (NAVEDTRA 10076a).
- Navy Procedures for Obtaining Health Hazards Evaluations (BUMEDINST 6270.8A of Jan 03). (These can support hazard abatement by comparing the relative hazard(s) of alternative materials and processes, including alternatives being considered to reduce hazards to users and the environment).
- Guidance Manual for Hazardous Material Substitution (NAVSUP Pub 718).
- Navy Independent Logistics Assessment (ILA) Policy (SECNAVINST 4105.1A of Mar 04). Described the mechanism for review of acquisition programs for life-cycle sustainment, including safety and health considerations. This provides a vehicle for safety and health professionals to ensure that new acquisition systems incorporate appropriate safety and health measures into design and logistic support planning.
- NAVFAC Safety and Health Program Policy (NAVFACINST 5100.11). (Supports requirements for safety in contract documents, contractor selection and performance evaluation).

Appendix 5-A: Added new appendix: **DoD and Navy Requirements for Safety and Health in Contract Documents.**, using information provided previously in CNO N454G ltr 22 Jun 01 – Safety in

Contracts References. **Rationale:** Provides web-accessible links to support hazard abatement and appropriate safety management in contracts. Included a paragraph regarding contract selection criteria to this Appendix, with a reference to NAVFACINST 5100.11J.

Chapter 6 – TRAINING

Background: The proposed changes for Chapter 6 reflect recent reorganization within the Navy’s training organization as a result of “Task Force Excel”, such as:

- Naval Education Training Command (NETC) (which evolved from Chief of Naval Education and Training (CNET).
- Naval Personnel Development Command (NPDC) (a new organization).
- The alignment of the Naval Occupational Safety and Health, and Environmental Training Center under the Naval Safety Center.

Other comments submitted reflect the fact that other DoD organizations have changed as well. The appendices were updated to reflect current training requirements and recommended acquisition safety training was added. Specific paragraph changes are:

Para 0602: Expanded Appendix A to include recommended acquisition safety training.

Para 0602.a(5): Allowed higher command to determine emphasis programs.

Para 0602.c(1): Stated that electronic training methods were acceptable. **Para 0602.d(2):** Allowed equivalent courses such as OSHTI courses. Exempted Certified Safety Professionals (CSPs) from requirement to take minimum safety courses. Exempted Certified Industrial Hygienists (CIHs) from taking the hazardous material, introduction to Occupational Safety and Health and Industrial Hygiene minimum courses.

Rationale: Eliminates redundant requirement and saves money.

Added Ergonomics and Machine Guarding to minimum courses.

Rationale: Ergonomics-related injuries are the most prevalent type of injury in the Navy.

Increased focus supports the SECDEF/SECNAV 50% Mishap Reduction initiative.

Para 0602.d (3): Deleted requirement that safety trainers had to have a “Train the Trainer” course. Defined required courses for CSPs and CIHs.

Para 0602.e (2): Added a recommendation to complete a “Train the Trainer” course.

Para 0602.f(3): Clarified that CPR courses are provided by AHA but may not be free, and that the DoD Lead Agent for all Resuscitative Medicine Training approves these courses. **New Para**

0604.b: Modified section on availability of safety videos, formerly on NAVOSHENVTRACEN website and now on the DoD DAVIS website.

Para 0606: Strengthened professional certification section by adding two paragraphs, one encouraging certification as CIH and CSP, and one summarizing recent Navy civilian policy that authorizes Navy activities to pay for obtaining and renewing professional credentials, including certification. Provided the reference for this authorization. Added a reference for COHN certification.

New Para 0607.a: Changed OPNAV resource sponsor for safety training from CNO N4 (Logistics) to CNO N09B. Added a statement concerning the MOA between COMNAVSAFECEN and NPDC.

New Para 0607.b: Added requirements for NETC and NPDC to include integration of training, development of Navy Training System Plans, and evaluation of training policy guidelines.

New Para 0607.c: NAVOSHENVTRACEN is responsible for the requirements previously assigned to the Naval Education and Training Command (CNET now NETC).

Para 0607.c(4): Deleted requirement to coordinate training with OSHA.

Rationale: NAVOSHENVTRACEN will do best business practices to determine the best source of training.

Para 0607.h: Clarified that training needs were to be submitted for the next fiscal year.

Reference: Added a new reference 6-5 Department of the Navy (DON) Civilian Human Resources Manual, Subchapter 410: http://www.donhr.navy.mil/donchrm/410_SubCHnew.asp.

Appendix 6-A: Added guidance on acquisition safety training.

Rationale: Recommendations are made to ensure that certain SOH professionals linked to systems commands; depot-level maintenance facilities and research and development operations are aware of these requirements and can constructively participate in the process. Deleted training requirements for man-made vitreous fibers.

Appendix 6-B: Added more work categories (i.e., Hazardous Waste Site Workers and Hazardous Waste Facility Workers) to required Hazard Communication Training.

Appendix 6-C: Removed wording regarding the coordination of course requirements with OSHATI.

Rationale: OSHATI does not have an MOA or contract with NAVOSHENVTRACEN and does not have staff or funding to support combined training with Navy.

Chapter 7 – HAZARDOUS MATERIAL CONTROL AND MANAGEMENT (HMC&M)

Background: Department of Navy policy on Hazardous Material Control and Management (HMC&M) is undergoing rapid and significant changes. Since the publication of OPNAVINST 5100.23F, NAVSUSPSCOM has been tasked to work more closely with Navy combatants in sustaining Consolidated Hazardous Material Reutilization and Inventory Management Program (CHRIMP) operations. Formal tasking of that assistance is in a CNO letter of 4 February 2004, subject “CHRIMP/Regional HMC&M at Navy Shore Activities. While the primary purpose of this letter is to eliminate “stovepipe” CHRIMP operations within a Navy Region, it also mandates a strong tie between ships and shore activities in ensuring an HM ship to shore interface. Hazardous Substance Management System (HSMS) is currently being merged with the web based Regional Hazardous Inventory Control System (RHICS), the former HICS, and the new HSMS will be used Navy wide. The recommended changes for OPNAVINST 5100.23G emphasize CHRIMP as the most important element of HMC&M, with less emphasis on the information technology. As CHRIMP has evolved, more management responsibility of the Authorized Use List (AUL) is being assumed by the Installation’s Hazardous Material Minimization (HAZMIN) Center. The Safety and Environmental Officers still play a vital role in approving the use of any HAZMAT utilized on the installation. This fact is noted in other pertinent paragraphs, which stress that activities, and work centers should be getting their HM requirements via the Installation HAZMIN Center – as mandated by reference 7-7 and 7-10.

Para 0701.c: Changed wording to emphasize CHRIMP.

Para 0702.b(4): Removed HAZMIN centers and added reference to CHRIMP afloat to improve coordination between ashore and afloat hazardous material management and control.

Para 0702.b(5): Added wording to implement regional CHRIMP operations.

Para 0702.b(6): Added wording to implement Enhanced CHRIMP Afloat Program (ECAP).

Para 0702.f: Added wording to include Final Governing Standards.

Para 0702.g: (and Former Note) Moved the special note stating that materials exempted by 29 CFR 1910.1200.b(6) do not have to be listed on the authorized use list (AUL) into the paragraph and eliminated requirement for a regional hazardous material minimization center.

Para 0702.g(7) Note: Reformatted note in list format for easier readability. Added clarification on pesticide labeling.

Para 0702.g(8): Eliminated paragraph on HSMS, emphasized use of CHRIMP and provided reference CNO letter on CHRIMP.

Para 0702.g(10): Increased flexibility to allow for Hazards Communication (HAZCOM) program to be managed by offices other than the safety office.

Para 0704: Made minor changes to afloat HMC&M guidance to improve coordination between ashore and afloat HMC&M.

Para 0705: Added Final Governing Standard to considerations that must be addressed at overseas Navy activities.

Para 0706: Clarified guidance on chemical hygiene plans.

References: Updated BUMEDINST 6270.8A of Jan 02. Added CNO N4 letter of Feb 04 on CHRIMP. Added Executive Order 13101 of 14 Sept 98, "Greening the Government Through Waste Prevention, Recycling, and Federal Acquisition."

Appendix 7-A: Changed to reflect changes in addresses and organizations and the processes now in place to update the repository of Material Safety Data Sheets (MSDSs), now known as the Hazardous Material Information Resource System (HMIRS), that replaced the Hazardous Material Information System (HMIS). All references to HMIS have been replaced with the HMIRS web based system.

Chapter 8 – OCCUPATIONAL HEALTH

Background: Changes to Chapter 8 were developed by the Occupational Health Support Services Working Group under the Shore Safety Committee. The changes bring the chapter in line with American Industrial Hygiene Association's (AIHA), "A Strategy for Assessing and Managing Occupational Exposure" (1998) and the "DoD IH Exposure Assessment Model." published in The DoD Industrial Hygiene Working Group Report 2000-1, January 2000, available at: <https://www.denix.osd.mil/denix/Public/News/Army/DOHP/Occhealth/Documents/IHEAM/ihaessmodelv8.html>.

Note: Para 0802 and 0803 from previous version were merged into a single 0802 in this update.

Para 0801.d: Modified paragraph on priority of occupational health service to allow for changing priorities. The previous version made operational command #1 priority and other DON activities #2 priority.

Para 0802.a: Added anticipate to the sentence about industrial hygiene role in controlling workplace exposures. Added three references to this paragraph (AIHA Exposure Assessment, NEHC IH Field Operations Manual, and the DoD IH Exposure Assessment Model). Added clarification regarding: (1) controlling unacceptable exposures and (2) providing a basis for medical surveillance as goals of industrial hygiene.

Para 0802.b: Expanded exposure assessment strategy to using similar exposure groups (SEG) to more effectively assess exposures.

Para 0802.d: Rewrote the OPNAVINST 5100.23F previous Para's 0803.b and c (Basic Characterization of the Workplace) to a new paragraph on Exposure Assessment, using similar exposure group (SEGs) perspective. This new paragraph aligns industrial hygiene services with DoD and AIHA guidance.

Para 0802.e: Rewrote the OPNAVINST 5100.23F previous Para 0803.c on Qualitative Risk Assessment and Setting of Priorities to a new paragraph on further information gathering to explain how to resolve problems that develop with exposure profiles that lack definitive detail to make clear decisions.

Para 0802.f: Added wording to explain report and recordkeeping elements. 0802.f (2) Lists the documents necessary for a complete industrial hygiene evaluation.

Para 0802.f Note: Deleted "nine day" before "industrial hygiene techniques and exposure-monitoring course" so reads "Exposure monitors shall successfully complete the industrial

hygiene techniques and exposure-monitoring course and a period of on-the-job training as determined and documented by the supervising BUMED IH.”

Rationale: This would give NEHC the latitude to adjust the length of the course as needed.

Para 0804: Added examples of standardized industrial hygiene data.

Para 0804.a: Added web-link to the Navy Environmental Health Center.

Para 0805: Added an introductory paragraph to explain the purpose of the Occupational and Environmental Medicine (OEM) Program. Included job certification exams as an element of the OEM program and emphasized reduction of lost work time.

Para 0806.c: Clarified limitations on CATs.

Para 0807.a: Removed references to the responsibilities of a medical records custodian and referred the reader to references 8-5 and 8-11 to reflect current elements of the Occupational and Environmental Medicine Program.

Para 0808: Medical records paragraph has been shortened to reference current requirements, 29 CFR 1910 and BUMED P-117.

Para 0808.a(4): Added BUMED activity requirement to participate in Workers’ Compensation Working Groups as requested.

Rationale: Per Naval Audit Service Report recommendation #4 (partial).

Reference: Added reference to DoD IH Exposure Assessment Model, DoD IH Working Group Report 200-1, Jan 2000 along with web-link. Updated Reference 8-2.

Appendix 8-A: Modified Exposure Monitoring Form to include a column for “Work Task.”

Appendix 8-B: Modified Frequency of Reassessment Guidance by adding NSWC Det to the type II Moderate Hazard Activity. Changed one word in title from Reevaluation to Reassessment. Added afloat categories for IH assessments.

For further information or clarification please contact the Occupational Health Support Working Group Chairpersons, CAPT Eugene Godwin (202)762-3491, regodwin@us.med.navy.mil or Carla Treadwell at (202) 762-3494 cltreadwell@us.med.navy.mil or contact any of the Occupational Health Support Working Group members.

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Chapter 9 SOH INSPECTION PROGRAM

Para 0901.b: Modified Command Evaluations to include a DoD reference on the three-year periodicity and to allow headquarters commands to obtain assistance in meeting this requirement if they lack sufficient staff at headquarters. This change eliminates confusion and gives Echelon 2 commands flexibility in meeting evaluation requirements.

Para 0902.b: Added requirement for safety inspectors to be trained in ergonomics, which is the major type of workplace injury. Reducing ergonomic related mishaps is critical to meeting the SECDEF/SECNAV 50% mishap reduction initiative. Deleted requirement for safety inspectors to complete the “Safety Appraisal” course.

Para 0903: Added a reference to Para 0304.a regarding written agreements.

Para 0904: Added one focus area to command evaluation requirements: Evaluation of mishap trends. This change supports the SECDEF/SECNAV 50% Mishap Reduction Initiative.

Para 0905.a and b: Clarified program oversight. Made it a requirement that headquarters commands inform NAVINSGEN of command inspection schedules.

Para 0905.c: Added a requirement for NAVINSGEN to identify Navy-wide safety program areas in need of improvement.

Appendix 9-A: Deleted Appendix on NAVINSGEN and Oversight Inspection (NOIU) Organizational Responsibilities. This Appendix was important when NAVINSGEN and NOIU were in two separate chains of command (NAVINSGEN reported to SECNAV and NOIU reported to BUMED). Organizational alignment moved NOIU to report directly to NAVINSGEN.

Appendix 9-B: Minor change to rename the Deficiency Notice from NAVOSH Deficiency Notice to Deficiency Notice. Also moved this form from Appendix 9-B to Appendix 9-A.

Chapter 10 – EMPLOYEE REPORTS OF UNSAFE/UNHEALTHFUL WORKING CONDITIONS

Para 1002: Clarified that the hazard reporting procedures in 1002 apply to activities, not regions. Added reference to 1998 DODI 6055.1 policy. Previously, this chapter had no references to higher authority.

Para 1002.b: Added e-mail and a log as a reporting mechanism.

Para 1002.d: Added requirement to investigate non-imminent danger and non-serious situations within ten working days.

Para 1003: Updated appeal chain of command to reflect changes in CNO and SECNAV organizations.

Para 1003.b: Clarified that the next higher level of command shall respond to an appeal.

Appendix 10: A Navy Employee Report of Unsafe or Unhealthful Working Condition - Improved the form in three ways to: (1) Recognize Navy regions, (2) Expand spacing to make it easier to complete the form either electronically or handwritten, and (3) Added “Report Control Symbol” to the form number to avoid form number confusion.

Reference: Added DODI 6055.1 policy.

Chapter 11 – INSPECTIONS AND INVESTIGATIONS OF WORKPLACES BY FEDERAL AND STATE OSH OFFICIALS

Para 1102.g: Changed message-reporting copies from CNO (N4) to COMNAVSAFECEN for OSHA investigations in areas involving contractors involved with ammunition, explosives or nuclear facilities or weapons.

Rationale: COMNAVSAFECEN is increasing role with safety activities.

Par 1102.n and p: Added CNO on copy list for citations and notification of situations where compliance would impair Navy missions.

Para 1103.a.(2) & (3): Changed message reporting copies to CNO and to COMNAVSAFECEN for OSHA investigations in areas involving handling or storage of ammunition or explosives or nuclear propulsion work areas.

Rationale: COMNAVSAFECEN is increasing support role of safety activities.

Para 1103.c: Added the requirement for afloat commanding officers to report OSHA inspections and requests for OSHA inspections aboard ship to the ship’s chain of command, with copies to CNO, COMNAVSAFECEN, and COMNAVSEASYSKOM.

Para 1104.d: Identified CNO as the authority to respond to OSHA requests to inspect areas/operations excluded from OSHA jurisdiction.

Para 1104.e: Added Echelon 2 to review of confidential photos prior to delivery to OSHA.

Para 1104.g(2): Replaced reference to Chapter 14 to OPNAVINST instruction because the majority of mishap reporting policy was moved from Chapter 14, updated and integrated into OPNAVINST 5102.1D.

Para 1105: Added CNO to the distribution list for targeting plans and inspection dates, reports, and replies to reports.

References: Added reference 12-4 to OPNAVINST 5102.1D on Mishap Investigation, Reporting and Recordkeeping and OPNAVINST 5100.19D OSH Program Manual for Forces Afloat.

Appendix 11-A: Corrected column heading from “Exclusively Military Workplaces” to “Exclusively Military-Unique Workplaces” to be consistent with Note 4 on the same page.

Chapter 12 – HAZARD ABATEMENT PROGRAM

Para 1202: Added assignment of responsibility for hazard abatement. The role of the activity or regional safety office is clarified throughout the chapter.

Para 1202.a(2): Clarified that the safety office assigns a letter of mishap probability to hazards.

Para 1202.c: Assigns responsibility to the safety office to prepare an HA plan for hazards with a RAC 1, 2, or 3 that requires more than 30 days to correct.

Para 1204.b(1)(a) 2.a: Reduced the centralized hazard abatement (HA) funding threshold from 100K to 50K.

Rationale: Echelon 2 commands and HA project managers have determined that there are many projects in the 50K to 100K range that would improve worker safety that are not being funded by the regions or activities. Many of these projects are simple, proven solutions that can have significant impact in reducing workplace injuries. With the increased focus from the President

(White House SHARE initiative), and the DoD/ SECNAV 50% Mishap Reduction initiative, this change is seen as a low cost way to reduce workplace mishaps. Prioritization of projects does not change and will continue to ensure that highest risk projects are funded first.

Para 1204.b(3)(a): A reference to the Navy hazard abatement web site is added.

Para 1205.b: Added project validation to abatement priority assignment.

Chapter 13 – NAVY OCCUPATIONAL SAFETY AND HEALTH COST DATA (SHORE ONLY)

Entire chapter: Recommend deleting.

Rationale: Chapter 13 Navy Occupational Safety and Health Cost Data (Shore Only) was cancelled during the final policy review, as safety budget execution information is now available in the Navy Program/Budget Information System Database (PBIS): Hazard Abatement, Shore Safety for CNIC in Other Base Operating Support, Safety Training, and Laser Safety. If additional information is required, a manual data call will be initiated.

New Chapter 13 – FALL PROTECTION PROGRAM

Background: This chapter was developed under the Shore Safety Committee, Fall Protection Working Group. As such, it is believed to have input from top experts throughout Navy organizations. Committee members and their commands are listed at the end of this executive summary. Dialog with committee members is encouraged.

Rationale for Chapter: Falls from heights are a leading cause of work-related injuries and fatalities at Navy Shore Facilities, similar to the private sector in the United States. The Navy continues to experience serious fall related mishaps, which lead to reduced readiness and productivity, as well as high medical and compensation costs.

General highlights of Chapter: Navy Activities who have personnel working at heights are responsible for establishing, managing and implementing a fall protection program, to protect their personnel from fall hazards. Navy activities have a duty to anticipate the need to work at heights and to plan their work activities accordingly – this means that EFFECTIVE accident prevention must be incorporated into the job planning process. This chapter provides requirements and guidance on establishing a program to protect Navy civilians and military personnel from the hazards of falling from heights.

The fall protection program includes:

1. Activity Policy.
2. Duties and Responsibilities.
3. Workplace Surveys and Assessment of Fall Hazards.
4. Fall-Hazard Prevention and Control Measures.
5. Fall Arrest Equipment Selection Criteria.
6. Training.
7. Anchorages for Fall Arrest Equipment.
8. Rescue and Evacuation Procedures.
9. Inspection, Storage, Care, and Maintenance of Fall Protection Equipment.
10. Falls from Heights Mishap Reporting.
11. Audits and Evaluations.

For further information or clarification please contact the Fall Protection Working Group

Chairperson, Basil Tominna at (619) 532-3041 or email Basil.Tominna@Navy.mil or contact any of the Fall Protection Working Group members.

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Chapter 14 – MISHAP INVESTIGATION, REPORTING AND RECORDKEEPING

Background: Recordkeeping has been removed from this chapter. Information is now located in Chapter 3 of OPNAVINST 5102.1D and is expected to be signed in 2004. OPNAVINST 5102.1D has been updated to reflect Web Enabled Safety System (WESS) II, web based reporting and recording version, to be released in 2004. The changes required to Navy recordkeeping requirements, 29 CFR 1904 and OSHA 300 Log, will also be reflected in OPNAVINST 5102.1D.

Para 1401.c./d./e: Deleted as information and is now located in Chapter 3 of OPNAVINST 5102.1D.

Para 1402: Addition of the word “root” to clarify the intent of mishap investigations to identify root causes of a mishap.

Para 1402.a: Added this para to reference 14-2.

Para 1403: Removed Mishap Investigation information and placed in OPNAVINST 5102.1D.

Para 1403.b: Added requirement for safety departments to coordinate with the Injury Compensation Program Administrator (ICPA) and medical departments.

Rationale: Per Naval Audit Service Report, recommendation # 7.

New Para 1403.c (1): Added requirement that safety departments must complete a written report on civilian mishaps causes and corrective action needed and forward them to the ICPA and Medical Case Managers.

Rationale: Per Naval Audit Service Report, recommendations #6, #8, and #9.

New Para 1403.c (2): Added a requirement that safety departments must forward safety recommendations to appropriate department heads and/or supervisors and department heads are responsible for implementing the corrective action, and notify command personnel (including the safety office) of progress.

New Para 1403.d: Added the requirement for safety departments to prepare and maintain a log of current status information on all recommendations for corrective actions.

Rationale: Per Naval Audit Service Report, recommendation #9.

Para 1405: Changed the determination of training equivalence from the supervisor to the cognizant Echelon 2 headquarters.

Para 1408 and 1409: Mishap Reporting and Recordkeeping have been removed from this instruction. Information is now located in Chapter 3 of OPNAVINST 5102.1D. OPNAVINST 5102.1D has been updated to reflect WESS II web based reporting and recording version II. The Recordkeeping portion of 29 CFR 1960 will be replaced by the Recordkeeping requirements of 29 CFR 1904. 29 CFR 1904 also requires the use of the OSHA 300 Log. These changes have been incorporated into WESS II. Para 1408 - Provides guidance on the reporting of near misses.

Rationale 1408: Per Naval Audit Service Report, recommendation #10.

Rationale 1409: Federal Agencies are expected to transition to recordkeeping required by 29 CFR 1904 in CY 2005. Also this change is consistent with the calendar year recordkeeping requirements of the OSHA Voluntary Protection Program (VPP). This change will accelerate Navy commands ability to apply for VPP status.

Para 1410: Renamed and revised the Dispensary Permit, now the Medical Referral Form

Para 1410.a: Added a requirement for first-line supervisors to recommend and/or encourage employees who are injured on the job to visit the occupational health staff department.

Rationale: Implement parts of the Naval Audit Service Report recommendation #2.

Appendix: All Appendixes have been cancelled or moved to the OPNAVINST 5102.1D, with the exception of Medical Referral, now Appendix 14-A

Chapter 15 – RESPIRATORY PROTECTION PROGRAM

Background: The Navy Environmental Health Center (NEHC) provides technical guidance for Navy Respiratory Protection Program Managers (RPPMs). Although basic requirements of a respiratory protection program remain unchanged, updates to applicable standards, regulations, and Navy terminology concerning program administration are warranted to ensure continuity with guidance related to Chemical, Biological, Radiological, Nuclear and Explosive (CBRNE) Respiratory Protection Program requirements specified in Chapter 34.

The substantive changes recommended for Chapter 15 pertain to the medical evaluation of military personnel wearing respirators, periodicity of BUMED respirator program audits, and program requirements for medical personnel. Minor changes include correction of references and inclusion of “confined spaces” under *Special Work Conditions* section of Appendix 15-A.1.

Para 1503.d: Expanded references to respiratory protection equipment to include personal protective equipment and clothing. Clarified that employees must meet the requirements of 1513.a in order to wear respiratory protective equipment.

Para 1503.e(1): Clarified wording concerning respirator fit-testing involving personal protective equipment to specify eye and face protective equipment.

Para 1507.b: Added language authorizing purchase of respirators through the General Service Administration.

Para 1507.e: Added technical definition for Self-Contained Breathing Apparatus (SCBA) approved by National Institute of Occupational Safety & Health (NIOSH) meeting National Fire Protection Association (NFPA) requirements to OPNAVINST 5100.23 Glossary.

Para 1507.f : Dropped reference to Occupational Safety & Health Administration (OSHA) tuberculosis standard, which was eliminated from the OSHA rulemaking agenda.

Para 1508: Relaxed requirement for military respirator medical exams that allows use of “fit for duty” exams as sufficient for respirator medical qualification.

Rationale: Reduces redundancies and saves money. The military physicals are comprehensive and meet the medical protocols of the respirator medical evaluation in the Medical Matrix. Corrected the reference to the manual of the Medical Department to P-17. Deleted the exemption of medical qualification for shipboard personnel undergoing shore firefighting training, but retained the exemption for SCBA fit-testing.

Para 1512: Required assistant or alternative RPPMs to receive training appropriate to their assigned responsibilities.

Para 1513.b(2)(a): Changed frequency of BUMED written evaluations of respiratory protection programs from annual to periodic, based on the complexity of the industrial processes and respirator program according to Appendix 8-B.

References: Updated ANSI Z88.7 from 1993 to 2001.

For further information: Contact Dave Spelce at (757) 953-0719 or email address Spelced@nehc.med.navy.mil/.

Chapter 16 – OCCUPATIONAL SAFETY AND HEALTH STANDARDS

Para 1602.c(1): Clarified the location for obtaining the OSHA 1989 Permissible Exposure Limits. They are available in the NEHC Industrial Hygiene Technical Manual, TM 1H 6290.91-2B of Oct 2004, available on website at <http://www-nehc.med.navy.mil/ih/ihfom03.htm> and are added as reference.

Para 1603: Clarified OSHA Alternate Standard Approval Process and encouraged Navy activities to comply with OSHA standards rather than submitting alternate standards.

Rationale: The alternate standard is cumbersome and seldom adds value.

Reference: Added reference 16-4, the NEHC Industrial Hygiene Field Operations Manual.

Chapter 18 – CONSERVATION AND NOISE ABATEMENT HEARING

The substantive changes recommended for Chapter 18 pertain to the definition of Significant Threshold Shift. Specific changes are:

Para 1804.a(7): Improved data collection for noise survey data to require (will instead of may) use of the NEHC noise survey forms, or a computer-generated equivalent.

Rationale: Data quality is critical to success in reducing hearing loss.

Para 1804.b(6): Added a reference to Para 0803.a for medical records documentation.

Para 1805. Labeling: Deleted last sentence of first paragraph that had allowed for alternate labeling of areas rather than individual tools.

Rationale: Experience has proven that tool labeling is needed. If an area is labeled, there is no ability to determine which tools are noise compliant and which ones are not compliant.

Para 1806.b (1): Specified the definition of “routinely exposed” as that described in reference 18-3.

Para 1806.d: Clarified the monitoring audiogram and provided two examples to assist in accurately determining temporary threshold shifts and OSHA recordability. The definition of significant threshold shift is defined as a change in hearing threshold relative to the current Reference Audiogram of an average of 10 dB or more at 2000, 3000, and 4000 Hz, in either ear. A change of 15 dB or greater in either ear at any test frequency from 1000 to 4000 Hz will be considered an early warning of potential future standard threshold shift (STS), requiring verbal counseling and assurance of appropriate hearing protection for the individual. The STS may be either positive (poorer hearing) or negative (better hearing). STSs are considered Navy- and OSHA- recordable when an audiologist, otologist, or occupational medicine physician confirms the shift is toward deteriorated hearing, is permanent, is consistent with an occupational origin, and exceeds an average of 25 dB at 2000, 3000, and 4000 Hz. The individual and his/her supervisor shall be notified when either an STS or a Navy- or OSHA-recordable hearing loss occurs. (See OPNAVINST 5102.1.D (DRAFT), Chapter 3 for additional details).

Rationale: This change in wording is consistent with DoD Instruction 6055.12, “Hearing Conservation Program (HCP)” of March 5, 2004, and listed as Reference 18-2 in OPNAVINST 5100.23G. We also anticipate an update to Reference 18-3, the NEHC Technical Manual, which will reflect this change.

Para 1807.g: Added a paragraph banning use of portable musical devices in high noise hazard work areas to reduce additional noise that could also contribute to hearing loss. Added a requirement that the use of portable musical devices during on base recreational activities be consistent with the Navy Traffic Safety Program, ONAVINST 5100.2.

Para 1813.c: Strengthened the responsibilities and accountability of regional commanders and/or commanding officers for shore activities to perform assigned noise program elements. Added a new requirement to regions/activities: (8) to utilize a “buy quiet” policy to ensure that acquisition considers noise and reduces costs up front.

Reference: Updated 18-2 to 5 Mar 04.

Chapter 19 – SIGHT CONSERVATION

Para 1902: Added a sentence to specify that the owner of the work process is responsible for managing eyewashes. Added a sentence to improve documentation of inspection and maintenance on self-contained eyewash units. Changed the weekly testing of plumbed units from a specified three minute flush to a flush period long enough to verify operation of the line and to flush the line. Added a recommendation that the annual inspection verify the weekly activation records. Specified a records retention period of one year for eyewash maintenance records. Clarified that personal eyewashes shall not be used for work with corrosives and that other uses must be approved by the region/activity safety staff. This clarification allows, with approval, the use of personal eyewashes for dusts or other eye hazards that are not specified in the OSHA standard, 29 CFR 1910.151.

Para 1903: Added clarification to standardize safety glasses procurement. First, it is a civilian employee's responsibility to obtain an eye refraction exam and secure an accompanying prescription for safety glasses (comprehensive vision examinations are a personal health responsibility and are strongly recommended in conjunction with an eye refraction examination). It should be noted that this issue was worked under the direction of the NAVOSH Quality Council (now Shore Safety Committee) with line and medical participation. Second, added vision screening as a mandatory service. Vision screening may include visual acuity, visual fields, and color vision screening. Vision screening is required to evaluate whether employees (or employee applicants) meet essential job elements, functional requirements or medical surveillance/certification requirements covered under the Occupational and Environmental Medicine Services in 0805.

Reference: Updated Ref 19-1 ANSI Standard Z358.1 from 1998 to 2004.

Chapter 20 – Personal Protective Equipment

Para 2011: Added information on safety clothing requirements as it was not in 5100.23F.

Para 2012: Referenced Chapter 33 for fall protection equipment.

Chapter 21 – LEAD

Para 2104.b(5)NOTE: Allows an exemption from local design review of indoor firing ranges if the design was completed and certified by NAVFAC's Technical Center of Expertise.

Para 2108: Added a reference to Para 0803.a for medical records documentation.

Para 2110.a: Clarified specifications for contracted work involving lead by describing the two Uniform Federal Guidance Specification references in this section to assist field activities with using these specifications.

References: Updated the Industrial Ventilation Manual from the 24th to the 25th edition.

Chapter 22 – NON-IONIZING RADIATION

The substantive changes recommended for Chapter 22 pertain to the inclusion of the Institute of Electrical and Electronics Engineers (IEEE) 2003 Standard into the chapter.

Para 2212.a: Clarified LSSO courses are to be approved by BUMED and the Lead Navy Technical Laboratory at the Naval Surface Warfare Center, Dahlgren and do not specify where the courses will be offered.

Para 2215: Added requirements for Maximum Permissible Exposure's (MPE's) per reference 22-14.

Para 2218.c (1): Changed COMNAVCOMTELCOM to NAVNETSPAOPSCOM transmitter facilities.

Para 2223.b: Changed references 22-2, 22-11 and 22-12 to 22-14 to limit induced current densities in body tissues.

Para 2225.e: Added requirement to retain laser inventories on-site (as well as prepare them) to ensure control of military exempt lasers.

Para 2225.e(6): Clarified incidents as over-exposure incidents and added reference 22-6.

References: Changed Ref 22-14, C95.6-2000 Safety Levels with Respect to Human Exposure to Electromagnetic Fields, 0-3 kHz. This reference replaces ref 22-14, International Radiation Protection Association, International Non-Ionizing Radiation Committee, Interim Guidelines on limits of Exposure to 50/60 Hz Electric and Magnetic Fields, May 1989 and 22-15, International Radiation Protection Association, International Non-Ionizing Radiation Committee, Guidelines on Limits of Exposure to Static Magnetic Fields, May 1993.

Appendix 22-B: Deleted Appendix 22-B as these tables are included in reference 22-11 and appropriate IEEE standards. Corrected references and address information in new 22-B, formerly 22-C.

Chapter 23 – ERGONOMICS PROGRAM

Background: The majority of the changes correct references, clarify ergonomics terms, and correct grammar. This chapter was revised under the Shore Safety Committee Ergonomics Working Group Committee (listed below). Dialogue with committee members is encouraged.

Para 2301: Added and described ergonomics terms such as: force, repetition, awkward or static postures, vibration, and contact stress.

Para 2304: Added wording to allow for the use of PR&MS or an equivalent self-assessment.

Para 2305: Clarified Job Task Analysis paragraph, which links to Appendix 23-A. Added a web link for the Job Requirements and Physical Demands Survey.

Para 2307: Added a DoD reference for Workstation Design paragraph. Clarified administrative controls paragraph.

Para 2308: Revised to reference Appendix 23-D training matrix.

Para 2310: Correctly aligned NAVOSHENVTRACEN under NAVSAFECEN.

References: Updated and added five new references: the Navy’s investigating, reporting and recordkeeping instruction, an AIHA publication on hand tool ergonomics, a NIOSH publication on power hand tools, DoD Instruction 6055.1 (which recently added a section on ergonomics), and American Conference of Government Industrial Hygienists (ACGIH) Ergonomic Exposure Guidebook.

Appendix 23-A: Changed the Appendix name to “A Physical Risk Factor Ergonomic Checklist” and revised to be more concise.

Appendix 23-B: Added a “Computer Workstation Checklist” to perform computer workstation assessments.

Appendix 23-C(formerly B): Updated training guidance, with sources for equivalent training or certifications. The training audience has been expanded to include Equipment Specialists and Health Care Providers.

Appendix 23-D: Added Recommended Ergonomic Training Guidance.

For further information or clarification please contact the Ergonomics Working Group Chairperson, Cathy Rothwell at (619) 532-2536 or email Cathy.Rothwell@Navy.mil or contact any of the Ergonomics Working Group members.

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Chapter 24 – ENERGY CONTROL PROGRAM (LOCKOUT/TAGOUT)

Para 2402.c: Changed the policy to identify lockout/tagout as the preferred method of energy control. Clarified that the second lockout key shall be readily accessible “to the supervisor” in the event of an emergency.

Para 2402.d: Added a requirement to standardize lockout/tagout devices throughout a region/activity. Deleted required information requirements on the tagout devices.

Para 2404.d: Added Para d(4) to require training of affected employees.

Para 2404.e: Added a requirement that each request for tagout-only shall be submitted to the safety office with documentation demonstrating equivalent protection to lockout, as required by reference 24-1.

Para 2404.e(4): Added Para e(4) to specify that the periodic inspections be performed and certified by an authorized employee other than the one utilizing the procedure.

References: Added a reference to the NAVSEA Technical Manual. Updated Ref 24-2, ANSI Z244.1 from 1982 to 2003. Ref 24-6 Military Handbook 1025 was replaced by UFC 3-560-02. Updated Ref 24-7, Army Corps Manual from 1992 to 2003.

Chapter 26 – MAN-MADE VITREOUS FIBERS

Entire chapter: Recommend deleting.

Rationale: Chapter 26 originated because there were no substance specific occupational exposure limits (OELs) for synthetic vitreous fibers (SVF), also called man-made vitreous fibers (MMVF) at a time when the scientific community was engaged in heated controversy questioning whether exposure to the fibers might be just as dangerous as exposure to the asbestos insulation materials they were replacing. The health concerns about MMVF centered around the fibrous nature of the materials and the possibility that inhaling the fibers could lead to short term upper respiratory inflammation and irritation, while chronic exposures might result in lung disease. Again, the parallel was made with asbestos fibers. The contradiction was that MMVF were regulated as dusts, not fibers. In 1992, OSHA proposed permissible exposure limits (PELs) of 1 f/cc for mineral wool, fibrous glass and refractory ceramic fibers, but the proposal was never enacted. In 1996, the Navy proposed Navy-specific OELs and began working with the National Academy of Sciences' Committee on Toxicology to assess the validity of the OELs. In the meantime, the American Conference of Governmental Hygienists (ACGIH) proposed Threshold Limit Values (TLV®s) for SVF. **Adopted in 1997, the TLV®s for continuous glass filament fibers, glass wool fibers, rock wool fibers, and slag wool fibers cancelled the need to have separate Navy limits for those fibers.** In 2001, the ACGIH TLV® for refractory ceramic fibers (RCF) was adopted.

The TLV®s for synthetic vitreous fibers is the same as the Navy OELs except for RCF. **Navy data to date indicates no problem with compliance with the lower RCF TLV®.** The table below allows a quick comparison between the Navy SVF OELs and the ACGIH TLV®s, including notational details and explanation. Because TLV®s are accepted as Navy standards when no other standard exists (per Navy hierarchy for standard adoption in Para. 1602.c(3)), there is no longer a need for specific Navy OELs. It should also be noted that the Man-Made Vitreous Fiber policy, previously Chapter B15, was deleted from the Afloat Program Manual, OPNAVINST 5100.19D, in October 2000. For clarity, the most current ACGIH TLVs® for synthetic vitreous fibers will be incorporated into the Industrial Hygiene Field Operations Manual (IHFOM), Appendix A.

COMPARISON OF MMVF (SVF) EXPOSURE LIMITS:		
	NAVY EXPOSURE LIMITS OPNAVINST 5100.23F, (Appendix 26-A)**	ACGIH 2004 TLV®s**
Continuous filament glass fibers	1 f/cc (a)	1 f/cc (F)
Continuous filament glass	5 mg/m ³ (b)	5 mg/m ³ (I)

fibers		
Glass wool fibers	1 f/cc (a)	1 f/cc (F)
Rock wool fibers	1 f/cc (a)	1 f/cc (F)
Slag wool fibers	1 f/cc (a)	1 f/cc (F)
Special purpose glass fibers	1 f/cc (a)	1 f/cc (F)
Refractory ceramic fibers	1 f/cc (a)	0.2 f/cc (F)
Refractory ceramic fibers (high temperature)	0.05 mg/m ³ (c)	N/A

** Explanation of letters in parentheses:

(a) Fibers longer than 5 μm; diameter less than 3 μm; aspect ratio greater than 5:1 as determined by the membrane filter method at 400-450X magnification (4-mm objective) phase contrast illumination. Taken directly from the 1999 ACGIH TLVs® as published.

(b) Inhalable fraction. The concentration of inhalable particulate for the application of this exposure limit is to be determined from the fraction passing a size-selector with the characteristics of SI (d)=50% x (1 + e^{-0.06d}) for 0 < d ≤ 100 μm where: SI (d) = the collection efficiency for particles with aerodynamic diameter d in μm. Taken directly from the 1999 ACGIH TLVs® as published.

(c) High temperature means- use temperature of > 850 °C. Operations involving the removal of “high temperature” refractory ceramic fiber (RCF) materials shall adhere to an exposure limit of 0.05 mg/m³ respirable crystalline silica dust. The reason for this variation is that, at high temperatures, RCF will convert to cristobalite, a form of crystalline silica dust. The concentration of respirable particulate for the application of this exposure limit is to be determined from the fraction passing a size-selector with the characteristics of SR(d)= SI(d) [1-F(x)] with Γ=4.25 μm and Σ=1.5 and where F(x) = the cumulative probability function of a standardized normal variable, x. The variable x can be found by using the following formula:

$$x = \frac{\ln(d/\Gamma)}{\ln(\Sigma)}$$

Two values were included for RCF to distinguish that the probable stressor of concern in new insulation projects was the RCF fiber, whereas in after-service RCF removal projects, it was most likely crystalline silica (cristobalite), whose PEL was 0.05 mg/m³.

F - Respirable fibers: length > 5 μm; aspect ratio ≥ 3:1 as determined by the membrane filter method at 400-450X magnification (4-mm objective), using phase-contrast illumination.

In 2000, the ACGIH corrected the fiber definition for SVF after several years of defining them with an aspect ration >5:1 (essentially correcting the counting rules from B to A for the NIOSH 7400 analytical method).

I – Inhalable fraction – *Inhalable Particulate Mass TLVs®* (IPM-TLVs) for those materials that are hazardous when deposited anywhere in the respiratory tract.

IPM consists of those particles that are captured according to the following collection efficiency regardless of sampler orientation with respect to wind direction:

$$\text{IPM}(d_{ae}) = 0.5[1 + \exp(-0.06 d_{ae})]$$

for 0 < d_{ae} ≤ 100 μm

where: $IPM(d_{ae})$ =the collection efficiency
 d_{ae} =aerodynamic diameter of particle in μm

Updated ACGIH definition of ‘Inhalable’ based on changes in the particle size definitions.

New Chapter 26 – CHEMICAL, BIOLOGICAL-RADIOLOGICAL-NUCLEAR-EXPLOSIVE EVENTS

Background: At the request of the CNO (N46) and NAVFAC Anti-Terrorism Force Protection Office, a CBRNE Emergency Management Program (EMP) Working Group was established to provide input in the development of a CBRNE EMP instruction for Navy shore installations. Contributing members of the CBRNE EMP Working Group included safety and health representatives from OPNAV, NAVFAC, NAVSEA, NAVSAFECEN, CFFC, NEHC, and BUMED. Proactive participation by this working group was considered critical for the successful development of a Navy shore installation EMP instruction.

Rationale for Chapter: The technical content contained in this chapter was initially developed as an Annex of CNICINST 3440 (currently in draft and formerly the NAVFAC Shore Installation Emergency Management Program). The content of this Annex is considered essential to NAVFAC and CNIC for the protection of emergency responders and installation personnel during a CBRNE event. The signatory of CNICINST 3440 requested that the Annex be incorporated into the NAVOSH Program Manual and then linked by reference.

General highlights of Chapter: This chapter includes guidance and requirements necessary to protect the occupational safety and health of emergency responders and participating installation personnel from recognized hazards during all phases of a natural or man-made CBRNE event. The chapter provides clear guidance on roles and responsibilities of site safety and industrial hygiene personnel within the Incident Command System. There is also information on CBRN respiratory protection program and personal protective equipment requirements including guidance to protect emergency and first responders from heat stress and confined space hazards. Specific sections of the CBRNE chapter include:

1. Responsibilities of Naval shore installation safety and industrial hygiene personnel.
2. Requirements on selection and use of personal protective equipment.
3. Guidance on protection from heat stress.
4. Guidance on confined space entry.
5. Additional safety requirements for establishing a CBRN Respiratory Protection Program.
6. Guidance on the location of training requirements for personnel by functional area of responsibility.
7. Guidance on the location of decontamination requirements for primary and secondary DECON personnel.
8. Guidance on the location of risk communication requirements for personnel by functional area of responsibility.

For further information: Contact the EMP Working Group liaison, Gavin Burdge, at email address Gburdge@dandp.com or telephone (703) 920-7070.

9. New Responsibilities of Naval shore installation safety and industrial hygiene personnel.

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Chapter 29 – OCCUPATIONAL REPRODUCTIVE HAZARDS

Background: The Occupational Health Support Working Group, under the Shore Safety Committee, developed changes to Chapter 29. Their recommended changes include clarifying that the policy applied to both military and civilian personnel, using the current NAVENVHLTHCEN Technical Manual for Developmental and Reproductive Hazards, NEHC-6260-TM-01, as the reference source for the Navy Reproductive Hazards List and Developmental Hazards Questionnaires and updating references.

Para 2903.a(1): Added “and visits” to inspections where safety personnel routinely look for reproductive hazards.

Appendices 29-B: “Occupational Reproductive Chemical Stressors List” and 29-C, “Workplace Exposures of Reproductive Concern Joint Supervisor’s and Worker’s Statement” has been deleted. These changes are recommended in order to eliminate redundancy and allow for timely updates to the Reproductive Hazards List and Questionnaires that are also referenced in OPNAVINST 6100.1B, “Guidelines for Pregnant Servicewomen”.

References: Updated Ref 29-1, OPNAVINST 6000.1B from 1989 to 2003. Ref 29-2 CFR 630 and Ref 29-3 PL 95-555 reflect current Federal guidance, Updated Ref 29-4 from 2002 to 2004.

Ref 29-6 became Ref 29-7, Ref 29-6 was added to provide guidance on medical qualifications and Ref 29-7 was updated from 1992 to 2001.

For further information or clarification please contact the Occupational Health Support Working Group Chairpersons, CAPT Eugene Godwin (202) 762-3491, regodwin@us.med.navy.mil/ or Carla Treadwell at (202) 762-3494 cltreadwell@us.med.navy.mil/ or contact any of the Occupational Health Support Working Group members. (See Chapter 8 for contact information)

Chapter 30 – INDOOR AIR QUALITY MANAGEMENT

Para 3001.b(1): Defined the unacceptable Humidity Range to be below 30% or above-60% all year round based on ASHRAE Standard 55-1992 to provide better guidance for field personnel.

Para 3001.b(2): Clarified the effect of CO₂ on the general population.

Para 3001.b(8): Provided new sentence to emphasize the importance of good air distribution within a building, since poor air distribution is a common cause for cold-draft and/or lack of airflow in parts of a building.

Para 3002: Added words to reference NEHC IH Field Operations Manual chapter on mold, including mold remediation wheel.

Para 3004.b: Recommended use of ASHRAE and NAVFAC policy to improve design, construction, and maintenance of ventilation systems to prevent costly problems.

References: Added 3 new references: an ASHRAE standard, a NAVFAC Interim Technical Guide “Mold Response Manual”, and NAVFAC policy on building commissioning.

Chapter 32 – SAFETY AND OCCUPATIONAL HEALTH AWARDS PROGRAM ASHORE

Background: Changes to Chapter 32 reflect administrative reorganization of and Echelon 2 and the realignment of CNO 454 and the COMNAVSAFCEM.

Para 3203: Clarified wording for award recognition to commands and individuals, removing the reference to safety professionals.

Appendix 32-A: Deleted the category for a headquarters award, due to CNO reorganization and changes in Echelon 2 structures. Expanded the activity level awards to Region/Activity. Clarified that the winners of the CNO award in each category will be advanced as the CNO nominees to compete for the SECNAV Shore Safety Award (i.e., no separate nomination packages with differing SECNAV criteria are required). Made activities and units who have experienced a military off-duty or PMV fatality or permanent total disability, or on-duty Class A mishap ineligible for the award. Made the individual award open to one officer, one enlisted, and one Navy civilian, (full-time or collateral), or one who has made a significant safety contribution. Established the same criteria for the CNO Shore Safety Award as used in SECNAVINST 5100.12A. Deleted the N454 Shultz award.

Glossary

The following terms were added to the Glossary:

Anchorage
Body Harness

Decontamination
Emergency Operations Center
Emergency Responder
Emergency Response Management
Engineering Control
Ergonomic Risk Factors
Falls from heights
Falls on same level
Fall Prevention
Fall Protection
Fall Restraint System
Fall Suspension Rescue Plan
Harness (Full Body)
Hertz (HZ)
Joint Service Lightweight Integrated Suit Technology (JLIST)
Joint Service Mask Leakage Tester (JSMLT)
Lanyard (for fall arrest/restraint)
Mission-Oriented Protective Posture (MOPP)
Needle-less Systems
NFPA 1981 Requirements
Occupation Exposure Limit (OEL)
Occupational Safety and Health Professional
Pre-incident Plan
Sharps with Engineered Sharps Injury Protections
TDA-99M
Toxic Industrial Chemical (TIC)
Toxic Industrial Material (TIM)
Vulnerability
Vulnerability Assessment
WMSD

The following terms were deleted from the Glossary:

Ergonomic hazards
Pesticide

The following definitions were modified:

Accident Report
ACGIH
Acute
Administrative Control
Anthropometric
Asbestosis
Atmosphere Immediately Dangerous to Life or Health (IDLH)
A-Weighted Sound Level
Bloodborne Pathogen
Ceiling Value
Combatant Commander
Confined Space
Contamination
Cumulative Trauma Disorders
Decibels, A-Weighted

Designated Agency Occupational Safety and Health Official
Disability
Disabling Work/Duty injury
Ergonomics
Ergonomist
Excursion Limit
Exposure Incident (Bloodborne Pathogens)
First Aid Case
Fumes
Hazard Control Hierarchy
Hazardous Waste (HW)
Headquarters Command
High-Efficiency Particulate Air (HEPA) Filter
Humanitarian Respirator Use
IDLH
Illness
Medical Documentation
Mesothelioma
Mishap Severity Classification
Occupational Health
Occupational Health Care Provider
Occupational Injury
Occupational Injury or Illness Categories
Occupational Medicine Services
Off-Duty Personnel
On-Duty Personnel
Oxygen-Deficient Atmosphere
Recordable Mishap
Reproductive Hazard
Respiratory Protection Program Manager RPPM
Safety or Health Professional
Serious Physical Harm
Significant Threshold Shift