



DEPARTMENT OF THE NAVY

COMMANDER NAVY REGION SOUTHWEST
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IN REPLY REFER TO:
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COMNAVREGSW INSTRUCTION 5100.11D

Subj: NAVY OCCUPATIONAL SAFETY AND HEALTH (NAVOSH) PROGRAM
MANUAL

Ref: (a) OPNAVINST 5100.23 Series, Navy Occupational Safety and Health Program Manual
(b) CFR 1960, Basic Program Elements for Federal Employee Occupational Safety and Health (OSH) Program
(c) DOD 6055.1 Series, Department of Defense Occupational Safety and Health (OSH) Program
(d) SECNAVINST 5100.10 Series, Department of the Navy Safety and Health Policy
(e) Executive Order 12196 of 27 Feb 80, Occupational Safety and Health Programs for Federal Employees
(f) Public Law 91-596 (29 U.S.C.651-678) Occupational Safety and Health Act of 1970
(g) OPNAVINST 5090.1 Series, Environmental Protection and Resources Manual
(h) OPNAVINST 5100.19 Series, Navy Occupational Safety and Health (NAVOSH) Program Manual for Forces Afloat

1. Purpose. To issue policy and guidelines for planning, organizing coordinating, implementing, and managing the Commander, Navy Region, Southwest (COMNAVREG SW) Occupational Safety and Health (OSH) Program as required by reference (a).

2. Cancellation. COMNAVREGSWINST 5100.11C.

3. Background

a. Reference (b) was promulgated by the Secretary of Labor to provide guidelines and requirements for federal agencies for implementation of OSH programs.

b. Reference (c) establishes the Department of Defense (DOD) OSH Program.

c. References (a) and (d) delineate policy and assign responsibilities for the Department of the Navy Occupational Safety and Health (NAVOSH) program and include provisions for complying with references (b), (c), and (e) through (g).

3. Applicability. The provisions of this manual apply to all Navy civilian and military personnel and operations under Commander, Navy Region, Southwest area of responsibility, except in those areas wherein responsibility for such a program rests with the Commandant of the Marine Corps (CMC), and those afloat personnel falling under the requirements of reference (h). Exceptions also include military-unique equipment, systems and operations; conditions governed by other statutory authorities or interservice support agreements; and conditions governed by international agreements overseas.

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CHAPTER 1

INTRODUCTION

0101. References. Throughout the manual, references applicable to each chapter appear at the end of each chapter.

0102. Discussion. Policy and guidelines for planning, organizing coordinating, implementing, and managing the Navy Occupational Safety and Health (OSH) Program are outlined in reference 1-1. Section 19 of reference 1-2, Occupational Safety and Health Act, contains special provisions to ensure safe and healthful working conditions for Federal employees. Under that section, it is the responsibility of the head of each Federal agency to establish and maintain an effective and comprehensive Occupational Safety and Health Program, consistent with the standards promulgated under section 6 of the Act. Reference 1-3 (Executive Order 12196, Occupational Safety and Health Programs for Federal employees issued February 26, 1980) prescribes additional responsibilities for the heads of agencies. Both of these references require specific opportunities for employee participation in the operation of agency safety and health programs. The two most important program elements are as follows:

a. The right of access to employee exposure and medical records. "Access," means the right and opportunity to examine and copy records. "Designated representative" means any individual or organization to which an employee gives written authorization to exercise a right of access. Employees under COMNAVREG SW area of responsibility have the right of access as prescribed in references 1-2 and 1-3. As outlined in references 1-4 and 1-5, employees will not be denied access to medical information about themselves or industrial hygiene survey results conducted within their workplace; nor will reprisal of any form be taken against an employee for participation in the OSH Program. Employees requesting medical or industrial hygiene survey results shall be directed to their servicing medical treatment facility via the Site Safety Office.

b. Allegations of Reprisal. The term "Reprisal" as used here means any act of restraint, interference, coercion or discrimination against an employee for exercising his or her rights under reference 1-2 or for participating in the agency's safety and health program.

0103. Posting and Dissemination of Information. Applicable information concerning the activity OSH program shall be posted on official bulletin boards and disseminated, via the COMNAVREG

SW web page, to all employees in accordance with the provisions of reference 1-6. The following establishes the minimum posting requirements:

a. A poster (DD Form 2272), which informs employees of protection and obligations, provided for in references 1-2 and 1-6. DD Form 2272 (Department of Defense Occupational Safety and Health Protection Program) is provided by the Site Safety Office.

b. Procedures for employee reporting of unsafe/unhealthful working conditions shall include employee rights and the appeal process.

c. The location where employees can review copies of reference 1-2 (the OSHA Act,) reference 1-3 (Executive Order 12196), NAVOSH standards and regulations, records of OSH committee actions and recommendations, and other documentation, concerning the activity OSH Program.

d. A copy of the Annual Summary of Occupational Injuries, Illnesses and Mishaps for the preceding fiscal year shall be posted no later than 45 days after the close of the fiscal year and shall remain posted for at least 30 days (see Chapter 14).

e. A current COMNAVREG SW Policy Statement.

CHAPTER 1

REFERENCES

- 1-1 OPNAVINST 5100.23 (Series), Navy Occupational Safety and Program Manual
- 1-2 Public Law 91-596 (29 U.S.C.651-678) Occupational Safety and Health Act of 1970
- 1-3 Executive Order 12196 of 27 Feb 80, Occupational Safety and Health Programs for Federal Employees
- 1-4 DOD 6055.1 Series, Department of Defense Occupational Safety and Health (OSH) Program
- 1-5 SECNAVINST 5100.10 (Series), Department of the Navy Safety and Health Policy
- 1-6 29 CFR 1960, Basic Program Elements for Federal Employee Occupational Safety and Health (OSH) Program

CHAPTER 2

RESPONSIBILITIES

0201. Discussion. Within Navy, overall responsibility for the Navy Occupational Safety and Health (NAVOSH) Program is vested in the Chief of Naval Operations (CNO) and is implemented through the chain of command. Maintenance of safe and healthful working conditions is a line management responsibility. Chapter 2 of reference 2-1 describes responsibilities, at command level, for implementing the NAVOSH Program.

0202. Commander, Navy Region, Southwest. Conduct an aggressive, continuing OSH Program that meets the requirements outlined in Chapter 2 of reference 2-1.

0203. Customer activities are responsible for implementing the OSH Program within their cognizant areas and shall:

a. Ensure that prompt reports of injuries, occupational illnesses, and property damage are submitted to the Site Safety Office.

b. Ensure that DD Form 2272, (Department of Defense Occupational Safety and Health Protection Program, poster), is posted permanently on official bulletin boards in the workplace.

c. Ensure that no employees are subject to restraint, interference, coercion, discrimination, or reprisal for exercising their rights under the DOD Safety and Health Program.

d. Ensure prompt abatement of hazardous conditions (ensure imminent danger corrections are made immediately).

0204. Supervisors. Supervisors are key personnel in the OSH Program due to the frequency of contact with employees. Mishap prevention is an operating function that cannot be transferred to a staff organization. To accomplish this responsibility, supervisors shall:

a. Ensure that personnel are trained, medically qualified and licensed, as applicable, to work safely.

b. Enforce safety and health rules.

c. Correct unsafe or unhealthful acts.

d. Correct unsafe or unhealthful mechanical or physical conditions.

e. Investigate and report all mishaps and near misses to the Safety Office.

f. Ensure employees with job-related injuries receive immediate medical treatment.

g. Ensure employees are informed of, report for, and accomplish medical examinations when scheduled.

0205. Employees are responsible for accomplishing all work tasks in a manner that ensures the safety of all concerned. Employees shall:

a. Observe all safety and health rules and procedures applicable to the job tasks.

b. Report all unsafe or unhealthful conditions or equipment to any available supervisor or the Site Safety Office per Chapter 10 of this instruction.

c. Use personal protective equipment, clothing, or devices as required.

d. Report to the servicing medical treatment facility for medical examinations as applicable.

0206. Performance Evaluations. The discharge of an individual's safety and health responsibilities shall be assessed and recorded in his/her performance evaluation.

CHAPTER 2

REFERENCES

- 2-1 OPNAVINST 5100.23 (Series), Navy Occupational Safety and Health (NAVOSH) Program Manual

CHAPTER 3

ORGANIZATION AND STAFFING

0301. Discussion. This chapter provides guidance on Occupational Safety and Health (OSH) functional organization, staffing, and responsibilities.

0302. Organization of the COMNAVREG SW Safety Office. The COMNAVREG SW Safety Office reports directly to the ACOS for Safety and is headed by a safety professional. The Safety Office shall:

a. Establish, coordinate, direct, and evaluate the effectiveness of OSH policies, plans, programs, and procedures.

b. Serve as COMNAVREG SW's focal point for OSH-related matters.

c. Provide technical advice, direction, and guidance on OSH matters to organizational elements and customer activities.

d. Conduct self-evaluations to determine the effectiveness of the OSH Program.

e. Serve as COMNAVREG SW's representative on safety councils, committees, and working groups established by higher authority and the private sector.

f. Analyze occupational injury and illness cases, reports, and initiate appropriate actions to improve the effectiveness of the OSH Program with the intent of reducing injury and illness experience.

g. Foster OSH awareness through appropriate promotional methods and channels of communication.

h. Ensure adequate consideration of OSH features in the design, purchase, or procurement of items over which COMNAVREG SW exercises acquisition authority.

i. Plan, develop, evaluate, and participate in employee OSH training.

j. Review and coordinate OSH budget requirements, requests, and submissions, as appropriate.

0303. Functional Responsibilities. The Safety Office shall ensure that the minimum core requirements listed in Chapter 3 of reference 3-1 are performed.

CHAPTER 3

REFERENCES

- 3-1 OPNAVINST 5100.23 (Series), Navy Occupational Safety and Health Program Manual

CHAPTER 4

COUNCIL AND COMMITTEES

0401. Discussion. COMNAVREG SW meets the requirement of an Occupational Safety and Health (OSH) policy council, required by reference 4-1, through Regional and Complex Executive Steering Committees (ESCs)/Customer Advisory Boards (CABs).

0402. Regional ESC:

a. Safety Function. The Regional ESC has three basic safety functions:

- (1) Create and maintain an active interest in OSH.
- (2) Serve as a means of communications regarding OSH.
- (3) Provide program assistance to commanding officers, including proposing policy and program objectives.

b. Membership:

- (1) Commander, Navy Region Southwest (Chair).
- (2) Deputy Commander and Chief of Staff, Navy Region Southwest.
- (3) Regional Business Manager (Facilitator).
- (4) Assistant Chief of Staff (ACOS) for Safety (OSH Advisor).
- (5) All Navy Region Southwest ACOSs and Complex Commanding Officers.

0403. Complex ESC/CAB

a. Safety Function:

- (1) Coordinate Base Operating System (BOS) and internal support programs within the installation footprint to accomplish the safety mission of the Navy Region Southwest.
- (2) Manage cross-functional safety issues within the installation footprint.
- (3) Liaison with fleet operators and tenants to

ensure that safety program elements and standards are maintained, that customer requirements are met with satisfaction and that customer feedback is handled appropriately.

(4) Liaison with local communities and stakeholders regarding safety issues.

(5) Liaison with Naval Medical Center San Diego Occupational Health & Preventive Medicine Directorate regarding occupational health issues.

b. Membership:

(1) Complex Commanding Officer (Chair).

(2) Site Safety Manager (OSH Advisor).

(3) Heads of Complex Tenant Commands/Activities.

c. Procedures:

(1) The Site Safety Manager shall ensure an appropriate OSH agenda is prepared and included as an overall meeting agenda item.

(2) The Site Safety Manager shall maintain copies of the meeting minutes for five years.

CHAPTER 4

REFERENCES

4-1 OPNAVINST 5100.23 (Series), Navy Occupational Safety and Health Program

CHAPTER 5

PREVENTION AND CONTROL OF WORKPLACE HAZARDS

0501. Discussion. Identification of hazardous conditions may be accomplished at the planning and design stage, as a result of workplace inspections or by employee reports. All recognized safety and health hazards shall be eliminated or controlled as quickly as possible, subject to priorities based upon the degree of risk posed by the hazard. This chapter discusses basic principles of hazard control and their application.

0502. Principles of Hazard Control. Hazard control can be defined as the function which is directed toward recognizing, evaluating and eliminating (or at least reducing) the destructive effects of hazards emanating from human errors and the situational and environmental aspects of the workplace. The preferred method of hazard abatement shall be through application of engineering controls or substitution of less hazardous processes or materials. The use of administrative controls is the next preferred method. Total reliance on personal protective equipment is acceptable only when all other methods are proven to be technically and/or economically unfeasible.

a. Engineering Control. Examples of engineering control are isolation of source, lockout procedures, design, process or procedural changes, monitoring and warning equipment.

(1) Isolation: Hazards are controlled by isolation whenever an appropriate barrier or limit is placed between the hazard and an individual who may be affected by the hazard. Isolation can be in the form of physical barriers, time separation, or distance.

(2) Substitution: The risk of injury or illness may be reduced by replacement of an existing (or intended) process, material or equipment with a similar item having more limited hazard potential.

(3) Ventilation: The control of a potentially hazardous airborne substance by ventilation can be accomplished by one of two methods:

(a) General or Dilution Ventilation. In this method, the concentration of contaminants is reduced to safe levels by mixing with uncontaminated air. This method can be very effective for the removal of large volumes of heated air or for

the removal of low concentrations of nontoxic or low toxicity contaminants from minor and decentralized sources.

(b) Local Exhaust Ventilation. This is the preferred and more economical method of removing contaminated air from the workplace. In this method, the contaminants are removed at the source or point of generation.

b. Administrative Control. The use of administrative controls, possibly in conjunction with personal protective equipment, is the next preferred method of hazard control. This method of control may take the form of:

(1) Limited access to high hazard areas.

(2) Preventive maintenance programs to reduce potential for leakage of hazardous substances.

(3) Adjusting work schedules in hazard areas.

c. Personal Protective Equipment (PPE). This is the least preferred method of control.

(1) Protective equipment may be selected for use in two instances:

(a) When there is no immediately feasible way to control the hazard by more effective means, and

(b) When it used as a temporary measure, while more effective solutions are being installed.

(2) The major shortcomings associated with the use of PPE are:

(a) No elimination or reduction of the hazard has occurred.

(b) If the PPE fails for any reason, the worker is exposed to the full destructive effects of the hazard.

(c) PPE may be cumbersome and interfere with the worker's ability to perform a task, thus compounding the problem.

0503. Application of Hazard Control Principles. Hazards will arise as a result of the dynamics of the workplace environment. Once hazards are identified, immediate action must be taken to avoid unreasonable danger. Here are some examples of hazard control principles:

a. Facility System Safety Working Group (FSSWG). An FSSWG should be established by Naval Facilities Engineering Command, Engineering Field Division (EFD) to review facility designs for new military construction (MILCON) projects to ensure hazards are identified and controlled. The FSSWG should include the Regional Project Review Safety Specialist, industrial hygienist, environmental engineer, planner, user, and Naval Facilities Engineering Command EFD safety engineer (for MILCON projects). The FSSWG should provide the EFD with a list of hazardous operations, which are of concern and review the control methods that will be used. The EFD safety engineer should coordinate with the working group to determine adequacy of controls. The FSSWG should track hazard and risk resolution, conduct pre-occupancy inspections and assist the EFD construction safety engineer to verify installation of the required controls as stated by the designers.

b. Purchasing Procedures. Properly developed and implemented review procedures can prevent the acquisition of equipment that is unsafe. All equipment that may pose a hazard to employees, shall be reviewed by the Site Safety Office prior to purchase, to ensure adherence to NAVOSH design criteria. As guidance, all equipment with one or more of the following characteristics shall be reviewed prior to purchase:

(1) Equipment that can cause injury to employees through contact with rotating parts, unguarded portions of equipment, and extreme heat or cold.

(2) Equipment which is pneumatically or hydraulically operated.

(3) Equipment which is noise hazardous.

(4) Equipment which lifts or supports material,

(5) Equipment which requires lockout for repair or maintenance.

This list is not all inclusive. There may be equipment that does not have characteristics listed above and may require review by the servicing Safety Office prior to purchase.

c. Operating Procedures. Standard Operating Procedures (SOP's) shall be generated which direct work to be performed in a safe and healthful manner. All equipment, which may create a hazard, either to personnel or equipment if improperly operated, shall require a SOP. The supervisor shall originate the SOP and

coordinate with the servicing OSH Office prior to issuance of the SOP to ensure applicable NAVOSH requirements have been addressed.

0504. Occupational Safety and Health Program Self-Assessment and Improvement Plans. The Safety Office shall ensure a comprehensive self-assessment of the NAVOSH program is performed at least annually. Based on the results of the assessment and any echelon 2 additional requirements, plans of action to address program areas in need of improvement shall be developed and implemented. COMNAVREG SW Executive Steering Committee shall review self-assessments and improvement plans and review the progress achieved in the implementation of improvement actions at least annually.

a. The self assessment shall include a review of mishap statistics and analysis data, as well as inspection records, hazard reports, risk assessments, program evaluations and program reviews.

b. For each identified deficiency, specific improvement strategies shall be developed. For each strategy, performance or measurement standards shall be defined and target dates established.

0505. Responsibilities. Commanders, Commanding Officers, and Officers in Charge of all COMNAVREG SW activities shall apply Operational Risk Management (ORM) principles and ensure that all identified elements of the hazard control program including engineering, maintenance, management policy and supervisory controls are monitored on a continuing basis to ensure the identification and elimination of hazards in the workplace. All personnel designated with responsibilities as prescribed in this instruction shall ensure that the requirements and procedures are established and performed.

CHAPTER 6

TRAINING

0601. Discussion

a. This chapter provides requirements, guidelines, and recommendations for occupational safety and health (OSH) and hazard communication (HAZCOM) training necessary for employees to perform their work in a safe and healthful manner. Adherence to safe operating practices and procedures cannot be assured, unless there is a clear and defined knowledge of the job, its potential hazards, and of the strategies necessary to perform the job properly and prevent mishaps. To attain this type and level of knowledge, a well-developed and coordinated training effort keyed to all levels and types of personnel is required. Properly applied OSH training can change behavior and lead not only to mishap reduction, but also performance improvement.

b. OSH training programs must be designed to instruct individual employees to perform their work in a safe and healthful manner, and shall be tailored to the level of responsibility of the individual. As a minimum, the training shall meet the requirements of reference 6-1 and shall provide personnel with sufficient knowledge for their effective participation in the OSH program.

c. The Occupational Safety and Health Administration (OSHA) regulations require employers to train their employees on the specific hazards and safe work practices for the hazardous material (HM)/chemicals they use in the workplace. OSHA regulations include training requirements for personnel involved in hazardous material control and management (HMC&M) and personnel who must handle hazardous material or hazardous waste (HW) - (see Chapter 7 of this manual).

0602. Shore Training Programs. Appendices 6-A and 6-B provide recommended OSH training for personnel assigned ashore. Each Site Safety Office will schedule and conduct standard NAVOSH classroom training courses that meet the requirements of reference 6-2. The following are specific training requirements by category of personnel:

a. Management Personnel. Management personnel shall receive sufficient OSH training to enable them to actively and effectively support OSH programs in their specific areas of responsibility. This training shall include:

- (1) An overview of appropriate statutes.

(2) An in-depth examination of management's responsibilities in relation to the OSH program. Ensuring that an aggressive and continuing OSH program is implemented is the general emphasis for this aspect of management level training. Training topics shall include compliance procedures, mishap costs and prevention strategies, and performance standards and evaluation.

(3) A review of Navy policy on all relevant aspects of the Navy Occupational Safety and Health (NAVOSH) Program. A broad understanding of the material addressed in this manual is essential.

(4) An examination of OSH program goals and objectives. Training shall also include a review of local mishap experience, trends, and reduction target areas.

(5) An overview of current CNO emphasis programs.

b. Supervisors and Employee Representatives. Training shall include introductory and specialized courses for recognizing unsafe unhealthful working conditions and practices in the workplace. For supervisory personnel, training shall also include the development of skills necessary to manage OSH programs at the work unit level. These management skills require the training and motivation of subordinates in the development of safe and healthful work practices and involve the integration of occupational safety with job training. Training for supervisory personnel shall meet the requirements of reference 6-1 and shall include OSH performance measurements (both in terms of mishap/hazard prevention and individual employee/supervisor performance), hazard identification and analysis, enforcement of NAVOSH standards, accident investigation, the use and maintenance of personal protective equipment, and HMC&M. Newly appointed supervisors shall receive OSH training within 180 calendar days as specified by reference 6-1.

c. Non-Supervisory Personnel. OSH training for non-supervisory personnel shall include specialized job safety and health training appropriate to the work performed by the employees. Supervisors shall direct specialized training for non-supervisory personnel to the individual's work site. Training shall include an examination of the relevant NAVOSH standards, an analysis of the material and equipment hazards associated with the work site, and standard operating procedures (SOPs) for specific tasks. The Safety Office shall ensure that employee training is conducted with input and direction from the workplace supervisor. Training shall include instructions on employee

rights and responsibilities under relevant OSH statutes, regulations, and the NAVOSH program. Customer activities shall make arrangements to provide training to all new personnel as close to the time of assuming their responsibilities as possible. Initial training for new employees shall include:

- (1) Local policy on occupational safety and health
- (2) Work unit policy on occupational safety and health.
- (3) Individual responsibility for safety and health.
- (4) Employee reporting procedures for hazardous operations/conditions.
- (5) Awareness of hazards common to the individual's work site, trades, occupation, or task.
- (6) Specific hazards of chemicals/materials used in the workplace, and the local HAZCOM plan.

NOTE: Supervisors must provide specific hazard and safe work practices training prior to an employee working with HM/HW.

- (7) An introduction to the local occupational health program, including how to obtain occupational medical assistance, required routine medical evaluations, and procedures to follow in case of occupational illness or injury.
- (8) Personal protective equipment requirements for the job.

d. Safety and Occupational Health Personnel. These personnel shall be trained through courses, laboratory experience and field study to perform the necessary technical monitoring, consulting, testing, inspecting, and other tasks that are required of OSH professionals.

e. Cardiopulmonary Resuscitation (CPR) Training Requirements

(1) Due to the nature of their work and responsibilities, certain personnel require CPR training. Initial training shall be in accordance with the nationally recognized consensus standard type training developed by the American Red Cross or the American Heart Association. Refresher training shall be conducted as necessary to maintain current certification. Personnel assigned duties as listed below shall complete this training:

- (a) Emergency response teams.
- (b) Fire department personnel.
- (c) Medical providers.
- (d) Safety personnel exposed to risk of severe injury.
- (e) Electrical power plant, power distribution, electrical and electronics personnel.
- (f) Supervisors (of above personnel or of personnel whose jobs pose comparable risks or risk of severe injury).
- (g) Personnel whose jobs pose comparable risks or who work at remote sites.

(2) The primary source of training should be through the American Heart Association facilitator located at Navy Hospitals and Clinics. This course of instruction is free to Navy personnel and is administered through the Navy Military Training Network by BUMED. The American Red Cross is also a recognized CPR training certification source. First aid training may be through the BUMED hospitals/clinics or per the nationally recognized consensus standards training developed by the American Red Cross for Basic and Advanced First Aid.

0603. Educational and Reference Materials. Educational and promotional materials such as lesson plans, videotapes, technical publications, pamphlets, and related materials are useful in promoting the reduction and prevention of workplace-related accidents and illnesses. The Safety Office maintains appropriate education and reference materials and will make such materials available upon request

0604. Record Keeping. Customer activities shall maintain training records for 5 years. Safety training records must be reasonably available and provided to safety inspectors upon request during workplace inspections. Supervisors shall use Appendices 6C-1 and 6C-2 to record and maintain safety training records. Documentation of safety training provided by the Safety Office will be forwarded to work center training POCs. The Safety Office will ensure records are kept and make the records accessible to authorized personnel involved in safety, occupational health, and the management and administration of HM/HW.

a. The minimum required record-keeping data for individuals trained includes the following:

Name
Organization
(Code/shop)
Job title

b. For each training session or course an individual completes, the following data is needed:

Course Date(s)
Instructor's name
Description and/or Reference to Lesson Plan
Course Title

c. Appendices 6C-1 and 6C-2 (Safety Training Roster and Work Center Safety Training Record) will be used to document all safety training.

d. The Safety Office will provide lesson plans for local training classes.

e. The Regional Safety Training and Consultation Department Head shall maintain an updated copy of each COMNAVREG SW OSH professional's Individual Development Plan (IDP).

0605. Responsibilities

a. The COMNAVREG SW Administrative Officer will notify the Safety Manager of all new military supervisors assigned.

b. The COMNAVREG SW Human Resources Office Director will notify the Safety Manager of all new civilian supervisors assigned.

c. Management shall:

(1) Ensure supervisors attend and conduct required safety training.

(2) Provide time to accomplish training.

(3) Maintain training records.

(4) Conduct periodic reviews of training given to ensure its adequacy.

d. Regional Safety Department Heads and Site Safety Managers shall:

(1) Establish and implement individual development plans (IDPs) for OSH personnel under their supervision. They shall use reference 6-4 as guidance in planning and documenting professional development training.

(2) Include the following courses in IDPs for OSH professionals: Safety Appraisals, A-493-0043; Introduction to NAVOSH (Ashore), A-493-0050; General Industry Standards, A-493-0061; Electrical Safety Standards, A-493-0033; Introduction to Hazardous Materials (Ashore), A-493-0031; and Introduction to Industrial Hygiene, A-493-0035.

(3) Ensure all new OSH personnel with a limited background of the NAVOSH policy, including managers, complete the course Introduction to NAVOSH Ashore, A-493-0050.

(4) Submit to the Safety Training and Consultation Department Head by 1 June each year a listing of departmental training requirements for OSH personnel. The listing shall identify courses and/or subject matter by recommended delivery location and anticipated number of attendees. Eight continuing education units (CEUs) per OSH professional per year are recommended but not mandatory.

e. All employees shall attend scheduled training.

f. Site Safety Manager shall:

(1) Provide safety training listed in Appendix 6-A.

(2) Maintain training records of all safety training Conducted.

(3) Perform an annual quality assurance check of each IDP to ensure conformity to reference 6-4.

g. The Safety Training and Consultation Department Head shall:

(1) Maintain an updated copy of each COMNAVREG SW OSH professional's IDP.

(2) Identify training sources.

(3) Submit to CINCPACFLT OSH manager by 1 July each year, via the chain of command, a listing of NAVOSH training

requirements for regional occupational safety and health personnel.

h. Supervisors shall:

(1) Provide specific job related safety training (material and equipment hazards, work unit policy on safety and occupational health). Supervisors may assign job-qualified personnel within their organization on a rotating basis to conduct this training.

(2) Schedule and ensure personnel receive appropriate training (e.g., hazardous material, hearing, sight or respiratory protection etc.) prior to performing hazardous operations.

(3) Provide hazardous material job specific training in accordance with Chapter 7 (Appendix 7-A, paragraphs 5.c and 5.d) of this instruction.

(4) Document training conducted on the form provided in Appendix 6-C (Safety Training Roster) and keep a copy for record purposes. The Safety Office does require a copy of the roster for training conducted by the supervisor.

CHAPTER 6

REFERENCES

- 6-1 29 CFR 1960, Subpart H
- 6-2 OPNAVINST 5100.23 (Series), Navy Occupational Safety and Health (NAVOSH) Program Manual
- 6-3 Navy Occupational Safety and Health and Hazardous Material Control and Management Navy Training Plan (NTP S-40-8603C)(NOTAL)
- 6-4 NAVEDTRA Publication 10076A, Career Development Program for Safety and Occupational Health and Industrial Hygiene Personnel (NOTAL)

APPENDIX 6-A

SAFETY TRAINING REQUIREMENTS

Type of Training	Top Management Personnel*	Industrial Supervisory Personnel & Employee Reps.	Non-Industrial Supervisory Personnel	Collateral Duty OSH Personnel	Non-Supervisory Personnel
Initial Orientation	1 hr.	3 hr.	1 hr.	40 hrs.	1 hr.
Hearing Conservation (when applicable)		1 hr. initial & Annual Refresher			1 hr. initial & Annual Refresher
Asbestos Hazards (when applicable)		1 hr./yr.			1 hr./yr.
Respiratory Protection (when applicable)		1 hr. initial & Annual Refresher			1 hr. initial & Annual Refresher
Lead (when applicable)		Upon assignment. Annual Refresher			Upon assignment. Annual Refresher
Man-Made Mineral Fiber (when applicable)		Initial and Annual Refresher			Initial & Annual Refresher
Workplace Safety Topics**					
Hazardous Material	See Appendix 6-B	See Appendix 6-B	See Appendix 6-B	See CH-7	See CH-7
Confined Space Entry		See CH-27	See CH-27	See CH-27	See CH-27

* Updates on performance, goals, initiatives, and program changes can be conducted at meetings for management, and through appropriate meetings or correspondence for supervisors, as long as records are maintained to indicate personnel have reviewed material or attended meetings.

** Supervisor covers various applicable OSH topics directed to the worksite employees including mishap prevention, compensation, MSDSs, work procedures, smoking, stress, plans and goals, radiation, etc. The supervisor can provide these at "stand-up" safety meetings at industrial activities, safety stand-downs, or through routed handouts/publications in offices. Formal classroom training is not required, however, where meetings or informal classroom training are conducted, document training by roster with subject, date, instructor and attendees; electronic media can be used to document such training. For non-industrial (office) activities or personnel, use monthly or periodic "captain's call" or other meetings or methods to distribute information to promote OSH.

APPENDIX 6-B

HAZARD COMMUNICATION TRAINING

This appendix provides guidelines for implementation of HAZCOM training at the local level. HAZCOM training is required to orient all personnel to the HAZCOM program as discussed in Chapter 7 and for personnel occupationally exposed to hazardous material. Tailor the latter training to individual jobs and specific exposures. The OSHA HAZCOM Standard does not establish time requirements for training, but instead depends upon employee knowledge of the standard (the HAZCOM program plan, chemical hazards on the job, and safe performance of the job) as the indicator of program effectiveness and compliance with the Standard. The time requirements below are not mandatory, but result from use of the DOD/Federal agency HAZCOM training materials. These materials, entitled *The Department of Defense Federal Hazard Communication Training Program*, consist of seven videotape lessons (DODFHCTP 3/4 Videotape 50521DN), a trainers guide (DOD 6050.50-G-1), and a workbook for employees to complete in conjunction with the videotape lessons (DOD 6050.5-5-W). The videotapes are available from Navy audio-visual libraries and centers.

Category of Activities Personnel	HAZCOM Training
Top Management	0.5 hr. initial
Supervisors and Employee Reps *	3 hrs. initial, annual refresher plus spill response & emergencies for supervisors
Non-supervisory Personnel **	3 hrs. initial, plus OJT and refresher by supervisor, as required
Emergency Response, HW Spill, Handlers Cleanup Personnel	See 29 CFR 1910.120

* For personnel occupationally involved with the use of or exposure to HM.

** OJT must include appropriate review of chemicals used such as review of material safety data sheets (MSDSs). Stand-up safety meetings can be used for this purpose.

APPENDIX 6-C
COMMANDER, NAVY REGION, SOUTHWEST
SAFETY TRAINING ROSTER

COURSE TITLE:	COURSE DATE: _____
COURSE LENGTH:	INSTRUCTOR: _____
COURSE DESCRIPTION:	TRAINING SITE: _____

PLEASE PRINT NAME: LAST, FIRST	SSN#	COMMAND	CODE#	UIC#	JOB TITLE	CIV:SERIES/GRADE MIL:RATE/RANK	SUPERVISOR		TELEPHONE NUMBER
							YES	NO	
1.									
2.									
3.									
4.									
5.									
6.									
7.									
8.									
9.									
10.									
11.									
12.									
13.									
14.									
15.									

PRIVACY ACT STATEMENT: (Authority) The Government Employees Act of 1958(U.S.Code4118) EFFECTS OF NONDISCLOSURE: Personal information on this form is given on a voluntary basis. Failure to provide this information, however, may prevent you from receiving credit for this course. INFORMATION REGARDING DISCLOSURE OF YOUR SOCIAL SECURITY NUMBER UNDER PUBLIC LAW 93-579, SECTION 7(b) DISCLOSURE by you of your social security number (SSN) is mandatory to be credited with the training you are receiving. Solicitation of the SSN by the Office of Personnel Management authorized under provisions of E.O. 9397, dated 11/23/43. The SSN is used as an identifier to match the person completing the training to the correct personnel records. It will be used primarily to give recognition for completing the training.

TRAINING TOPIC/TITLE	FREQUENCY & TARGET AUDIENCE	DATES RECEIVED	SUP. INITIAL
1. New Employee Safety/NAVOSH Indoctrination Provides overview of safety policies, rights and responsibilities.	One time requirement for all employees . Should be received within 180 days of employment/assignment.		
2. Safety Training for Supervisors Provides supervisors with the knowledge and "tools" to implement and manage a workcenter safety program	Initial and annual requirement for all supervisors . Initial training must be received within 180 days of assignment/promotion.		
3. Ergonomics and Back Injury Prevention Provides instruction in the nature, source, evaluation and control of cumulative trauma disorders.	Employees with increased potential for cumulative trauma injury; i.e., work involves: awkward postures of wrist or shoulders, excessive manual force, or high repetition.		
4. Hearing and Sight Conservation Informs employees about: (1) the health effects of noise and eye hazards, (2) hazard recognition/control, and (3) NAVOSH regulations.	Employees and Supervisors of employees who work in occupations involving noise and/or sight hazards. Initial training before expose and annual refresher .		
5. Asbestos & Man-Made Vitreous Fibers Awareness Alerts personnel to the potential health hazards of exposure to air borne friable asbestos and/or man-made vitreous fibers.	Employees and Supervisors of employees occupationally exposed to asbestos and MMVF must attend initial training prior to working and receive annual refresher training.		
6. Lead Hazard Awareness Informs employees about the potential health hazards of occupational exposure to lead.	Employees and Supervisors of employees occupationally exposed to lead must attend initially before working with lead and receive annual refresher training.		
7. Hazard Communication Covers procurement, storage, handling, recordkeeping and training requirements associated with the occupational use of hazardous materials/chemicals.	Supervisors & Employees occupationally exposed to hazardous material/chemicals. Initial training required prior to working or assigning others to work with HAZMAT.		
8. Bloodborne Pathogens Informs employees about the potential health hazards and control of hazards associated with the occupational exposure to blood.	Employees occupationally required to provide first aid/emergency services as a first responder . Employees occupationally exposed to blood. Initial and annual required.		
9. Respirator Training Instructs employees on the nature and degree of respiratory hazards, respirator selection and limitations, donning, use and care of respirators.	Employees and Supervisors of employees required to wear a respirator . Initial training required prior to use of a respirator. Annual refresher required.		
10. CPR Training Certifies employees to perform CPR.	Emergency response personnel, personnel occupationally exposed to live electrical current, and personnel whose jobs pose comparable risks.		
11. Energy Control (Lockout/Tagout) Reviews purpose, function, and procedures associated with the Energy Control Program. Initial and annual .	Employees and Supervisors of employees occupationally tasked with servicing/maintenance of machinery/equipment or systems with potential release hazards.		
12. Workcenter Safety Indoctrination Supervisors must communicate to employees the Workcenter Safety Policy; employees rights to a safety work environment; responsibilities to follow safety rules, report/correct hazards, and report injuries.	All employees upon initial assignment to new workcenter or new work process.		
13. Site-Specific/Work-Center Specific HAZCOM Supervisors must communicate to employees their rights, responsibilities, correct work practices, and emergency procedures associated with use of HazMat.	Employees occupationally exposed to HAZMAT in processes or operations where there are potential physical and health hazards. Initial and before new process.		
14. Confined Space Safety Training Only authorized and trained personnel are permitted to enter confined or enclosed spaces.	Employees and Supervisors of employees required to enter permitted and non-permitted confined or enclosed spaces. Initial and annual refresher required.		
15. Reproductive Hazards Reproductive hazard processes/workcenters identified on Industrial Hygiene Survey.	Employees and Supervisors of employees required to work in areas with potential chemical stressors. Initial and annual refresher required.		

Other Job Hazards Site Specific Safety Training List/Include/Attach Documentation		DATES RECEIVED	SUP. INITIAL

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CHAPTER 7

HAZARDOUS MATERIAL CONTROL AND MANAGEMENT (HMC&M)

0701. Background. HMC&M focuses on preventing or minimizing the introduction of hazardous material (HM) into the Navy system and on safe use of HM in the workplace.

0702. Scope. This chapter applies to any chemical product that is known to be present in the workplace in such a manner that employees may be exposed under normal conditions of use or in a foreseeable emergency.

0703. Responsibilities

a. Fleet and Industrial Supply Center (FISC) San Diego. Hazardous material (HM) acquisition is primarily a supply function. Accordingly, FISC San Diego has overall responsibility for HMC&M and implementation of HSMS for the region, including customer activities.

b. COMNAVREG SW Site Safety Office. CNRSW Safety Offices provide staff support for the HMC&M program to help ensure a compliant program is implemented. In meeting this responsibility, the Site Safety Office shall:

(1) Participate in the DOD Hazardous Material Information System (HMIS) per the guidance of reference 7-1.

(2) Through oversight and guidance, ensure that current MSDSs are obtained and maintained in a manner sufficient to ensure they are readily available to employees during all working hours, and that employees have an opportunity to review them prior to working with HM.

(3) Assist in establishing and implementing procedures for preparing MSDSs for locally developed or manufactured HM, and conducting reviews of all locally prepared MSDSs. COMNAVREG SW and customer activities, do not develop or manufacture HM in the normal course of conducting business. Should this circumstance arise, FISC San Diego would develop the MSDS. The Safety Office would review the locally prepared MSDS.

(4) Ensure a review of each incoming MSDS is conducted per reference 7-2.

(5) Provide reports and recommendations resulting from the safety and health review to appropriate line supervisors, managers, and the activity HMC&M Committee (where established).

(6) Provide consultation on the identification of HM, the labeling and marking of HM containers for special applications or conditions of use and for HM produced or manufactured locally by the facility.

(7) Ensure that a compliant written HAZCOM plan is implemented that addresses the key elements of reference 7-2. Appendix 7-A is the written HAZCOM Plan for COMNAVREG SW. Customer activities shall develop, implement, and maintain their own HAZCOM Plan at a central location, and make it available, upon request, to employees, their designated representative, or other government officials. Serviced activities can individually tailor their HAZCOM Plan by adding activity specific information to the supplemental information section of their HAZCOM Plan.

(8) Develop and establish a program to ensure employees receive required HAZCOM training. Assist supervisors and training specialists in conducting HAZCOM training when requested. Chapter 6 of this instruction contains information on COMNAVREG SW's training program.

(9) Provide a mechanism for informing contractors of Navy HM to which their personnel may be exposed, and for informing Navy personnel of contractor HM and providing the relevant MSDSs for HM to which they may be potentially exposed. COMNAVREG SW Public Works Contracting Officers fulfill this requirement in the normal course of contract oversight

c. Management shall:

(1) Inform all new employees of the HAZCOM program and conduct job-specific training.

(2) Ensure that employees whose job will require the use of HM receive initial HAZCOM training prior to being assigned to work with HM.

(3) Conduct job-specific HM training, and additional training if processes involving HM change.

(4) Ensure that all HM training (including classroom and stand-up safety meetings) is documented per Chapter 6 of this manual.

(5) Ensure that only HM listed on the Authorized Use List (AUL) is requisitioned.

(6) Ensure that the least amount of HM necessary to do the job is procured.

(7) Ensure that all HM is properly used, stored, and handled.

(8) Ensure that proper work controls (e.g., ventilation and PPE) are used during performance of work with HM.

(9) Implement and enforce a policy of limiting the amount of HM taken in-to work areas to that which can be used during one shift. Exceptions are small containers such as aerosol cans or tubes if the work process requires dispensing from the original container. Use the oldest HM with valid shelf life first.

(10) Ensure that HM turned-in for disposal is accompanied with the appropriate MSDS. Do not remove or deface the manufacturer's warning label.

(11) Ensure that deficiencies related to HM are corrected.

(12) Recommend less hazardous or less toxic material as substitutes for HM used. Recommend modifications to operations or processes to reduce the use of HM.

d. Workcenter Supervisors/Designated Representatives:

(1) Represent their shops/codes in matters relating to HM.

(2) Monitor HM storage areas to ensure that all containers are properly stored.

(3) Ensure that new labeling requirements are met when stationary tank (dip tank, storage tanks, etc.) contents are changed, except when spent chemicals are replaced with identical chemicals.

(4) Procure only HM on AUL, ensure a proper review of the MSDS is conducted per reference 7-2 and in coordination with the Site Safety Office.

(5) Ensure that MSDSs for HM in their area of responsibility are available on all shifts for employees to review.

(6) Notify proper response personnel (e. g. spill team) of all spills.

(7) Conduct review of each incoming MSDS to determine that, as a minimum, they are in English and contain the following information:

- (a) Identity of the material;
- (b) Hazardous ingredients;
- (c) Physical and chemical characteristics;
- (d) Physical hazards;
- (e) Reactivity;
- (f) Health hazards;
- (g) Precautions for safe handling and use;
- (h) Control measures;
- (i) Routes of entry into the body;
- (j) Emergency and first aid procedures;
- (k) Preparation date of MSDS or last change date;

(l) Name, address and phone number of a responsible party who can provide additional information on the hazardous material and appropriate emergency procedures.

Discrepancies identified by these reviews shall be reported to the Site Safety Office, for further action. The Safety Office will contact the manufacturer or distributor and inform them of discrepancies.

e. Employees:

(1) Ensure MSDSs accompany containers of HM received and manufacturer's warning label is not removed or defaced.

(2) Ensure HM containers' shelf life has not expired. If the material does not have a current shelf life, notify supervisor.

(3) Ensure that HM is properly used, stored, and handled.

(4) Ensure that proper work controls (e.g., ventilation and PPE) are used during performance of work with HM.

(5) Ensure that only as much HM as can be used during one shift is taken into work areas. Exceptions are small containers such as aerosol cans or tubes, if the work process requires dispensing from the original container. Use the oldest HM with valid shelf life first.

(6) Ensure that HM turned-in for disposal is accompanied with its MSDS. Do not remove or deface the manufacturer's warning label.

CHAPTER 7

REFERENCES

- 7-1 OPNAVINST 5100.23 (Series), Navy Occupational Safety and Program Manual
- 7-2 Code of Federal Regulations, Part 1910.1200, OSHA Hazard Communication Standard

APPENDIX 7-A

HAZARD COMMUNICATION (HAZCOM) PLAN

1. Purpose. To establish a Hazard Communication (HAZCOM) Plan for COMNAVREG SW per 29 CFR 1910.1200 and applicable DOD and Navy guidance.

2. Applicability and Scope. This plan, unless otherwise specified, applies to all COMNAVREG SW employees who routinely work with or are exposed to hazardous chemicals in their workplace and to employees who may be exposed in a foreseeable emergency.

3. Definitions.

a. Chemical Manufacturer. An employer with a workplace where chemicals are produced for use or distribution.

b. Container. Means any bag, barrel, bottle, box, can, cylinder, drum, reaction vessel, storage tank, or the like that contains a hazardous chemical.

c. Distributor. Means a business, or other chemical manufacturer or importer, which supplies hazardous chemicals to other distributors or employers.

d. Employee. Means a worker (military or civilian) who may be exposed to hazardous chemicals under normal operating conditions or in foreseeable emergencies. Workers such as office workers or cashiers who encounter hazardous chemicals only in non-routine, isolated instances, are not covered.

e. Employer. Means a person engaged in a business where chemicals are either used, distributed, or are produced for use or distribution; isolated instances are not covered.

f. Hazardous Chemicals. Any chemical that is a physical hazard or a health hazard per 29CFR Section 1910.1200 (c), and with some exceptions as specified in the Community Right to Know Law of 1986 (Superfund Amendments and Reauthorization Act (SARA), Title III).

g. Hazardous Material (HM). Any material, as defined in 29 CFR 1910.1200, that is a hazardous material.

h. Hazardous Substance Management System (HSMS). A cradle-to-grave tracking system designed to control acquisition of hazardous material and thereby reduce hazardous waste. The

capabilities of HSMS can meet the authorized use list and inventory requirements of 29 CFR 1910.1200.

i. Hazardous Waste (HW). Any discarded substance as defined in 40 CFR 261 or applicable state regulations where the state has been granted enforcement authority by the Environmental Protection Agency.

4. Policy. This HAZCOM Plan shall be made available, upon request, to employees, their designated representative, or other government officials.

a. Each employee or contractor working at COMNAVREG SW shall be appraised of the HAZCOM Plan. All persons working with or routinely coming in contact with hazardous chemicals shall receive training on the hazardous properties of hazardous material (HM), hazardous chemicals they work with, and the precautionary measures needed for protection from these hazards.

b. All work location managers and workcenter supervisors shall ensure that each work area or shop maintains Material Safety Data Sheets (MSDSs) for each HM used in that area, and that they are readily available to workers.

c. Only HM on the Authorized Use List (AUL) shall be used. All HM received shall be properly labeled with, as a minimum, the chemical identity, trade name, appropriate hazard warning, and the address of the manufacturer, importer or other responsible party.

5. Discussion

a. 29 CFR 1910.1200 established requirements for training and informing all employees of the hazards associated with the chemicals with which they work or are exposed to. To ensure worker safety, this written plan implements those requirements.

b. Paragraph (b) (4) of 29 CFR 1910.1200 recognizes that there are a number of work situations where employees handle only sealed containers of chemicals and, under normal conditions of use, would not open the containers and would not expect to experience any measurable exposure to the chemicals. Such work operations include, for example, warehousing, retail sales, marine cargo handling, and trucking terminals.

6. Program Operations and Responsibilities

a. List of Hazardous Chemicals. Each activity shall maintain a list of all hazardous chemicals used by work location

and will update the list at least on an annual basis in cooperation with all command organization elements. This list is also referred to as the Authorized Use List (AUL).

(1) Each workcenter shall retain a copy of their AUL and designate locations where HM is located.

(2) The AUL shall be verified in cooperation with local and higher authority audits.

(3) Additionally, each workcenter shall distribute the AUL among key local offices, fire department, and cognizant servicing medical treatment facility as appropriate.

b. Material Safety Data Sheets (MSDSs). Each workcenter supervisor is responsible for obtaining MSDSs for all hazardous chemicals utilized and will maintain a reference library of MSDSs for each of the chemicals or material contained on the AUL. In addition each workcenter supervisor shall distribute MSDSs to various organization elements as needed for local requirements.

(1) A complete set of all MSDSs will be maintained at the workcenter in a location that is readily accessible to their employees and workcenter supervisors shall instruct employees on their availability and use.

(2) Individual MSDSs shall be reviewed periodically for completeness and accuracy. Technical guidance shall be sought from the industrial hygienist in the event additional guidance or research is required.

c. Labels and Other Forms of Warning

(1) Each workcenter supervisor shall ensure that all HM centrally received at the workcenter is properly labeled.

(2) The manufacturers' MSDSs and HMIS are sources of information on hazard storage compatibility for the DOD HAZCOM compliant label.

(3) The COMNAVREG SW Site Safety Office is responsible for performing routine periodic inspections to ensure that all hazardous chemical materials are properly labeled, in proper use, and hazard warnings are properly heeded.

(4) Each workcenter, in coordination with the COMNAVREG SW Site Safety Office shall identify pipes and piping containing hazardous chemicals or HM and ensure proper labeling, placarding, or other means of identification. The workcenter, with oversight

assistance from the COMNAVREG Site Safety Office, shall also ensure that local procedures are established to maintain surveillance of such systems and that appropriate personnel are trained on the identification system and means of obtaining related MSDS information.

d. Training

(1) Supervisors shall inform all new employees of the HAZCOM Plan. Supervisors shall schedule and conduct job-specific HM training at the time of initial assignment.

(2) All supervisors shall conduct job specific training in event of HM process change.

(3) Initial HAZCOM training shall emphasize the below listed elements:

(a) A summary of the OSHA HAZCOM standard and this written program.

(b) Job specific HM and hazardous chemicals to which personnel have contact; the chemical properties of the HM, including visual appearance and odor; and methods that can be used to detect the presence or release of hazardous chemicals.

(c) Physical and health hazards associated with the potential exposure to workplace chemicals.

(d) Procedures to protect against hazards; e.g., personal protective equipment, work practices, and emergency procedures.

(e) Hazardous chemical spill, leak, and disposal procedures.

(f) MSDS locations, how to understand their content, and how employees may obtain and use appropriate hazard information.

(4) Training priorities are provided in the OSHA Hazard Communication Standard, 29 CFR 1910.1200 for HAZCOM training of persons exposed to hazardous chemicals:

Priority

Groups

- A Workers in occupational health medical surveillance program due to workplace chemical exposures.
- B Personnel who work in jobs or areas where there is significant risk for accidental exposure to chemical and consequences of exposure would be severe. For example flushing pipes with a solvent.
- C Personnel who work in jobs or areas where there is a low potential for accidental exposure to chemicals, but the health consequences of exposures would be severe; for example, sealed containers in a confined space.
- D All other personnel incidentally or occasionally exposed to workplace chemicals.

(5) All required training shall be documented in accordance with Chapter 6 and retained by the COMNAVREG SW Site Safety Office or the workcenter, and made readily available for review by the COMNAVREG SW Safety Organization. Training records shall be retained for five (5) years. A copy will be included in personnel records, and copies made available to other DOD employment offices upon request. For HW personnel, 40 CFR 262.34, 264.16 and 265.16 require retention of records for the life of the facility. Records on former employees must be kept for at least three (3) years from the date the employee last worked at the facility.

e. Non-Routine Tasks

(1) All supervisors planning non-routine tasks involving HM shall ensure that employees involved are trained and equipped to the same extent as required for routine tasks.

(2) Training to ensure that all employees are informed of non-routine chemical work hazards will be accomplished and documented prior to initiation of the scheduled work.

f. Contractor Employers and Employees

(1) Contractors shall ensure that his/her employees adhere to the policies of 29CFR 1910.1200.

(2) The Contracting Officer shall take action to write and use contract clauses that require adherence with the 29 CFR 1910.1200.

(3) Contractors and contractor employees shall inform appropriate shore activity supervisors that they have brought aboard HM and ensure appropriate MSDSs for the HM are made available.

(4) The contracting officer shall ensure that all contractors coming aboard the Serviced Activity are informed of the Serviced Activity's HAZCOM Program and declare and coordinate the use of HM brought aboard with the COMNAVREG SW Site Safety Office.

g. Program Information. Further information on this program plan can be obtained from the COMNAVREG SW Site Safety Office.

7. Responsibilities.

a. Assigned individuals shall perform their specific responsibilities as stated.

b. All supervisors and employees are responsible for ensuring that only authorized and officially acquired material are used in work operations.

c. Organizational components and supervisors shall accomplish their assigned responsibilities as stated in this instruction and assist assigned staff members in the conduct of their responsibilities.

d. Annual performance ratings will reflect performance with the policies and requirements contained herein.

8. Supplemental Hazcom Plan Information For CNRSW Activities.

Date:
Command/Activity Name:

Address:
Workcenter(s) included in HAZCOM Plan/Location of MSDSs:
HM Point(s) of Contact/Phone:
Location(s) of workcenter AUL(s) and MSDS inventory:

CHAPTER 8

OCCUPATIONAL HEALTH

0801. Discussion

a. The occupational health program is primarily concerned with insidious health effects, which are usually produced by long-term (chronic) exposures to toxic chemicals or harmful physical agents (e.g. noise, radiation, etc.). Since many hazardous agents can produce both acute and chronic effects (including death), depending on the nature and degree of exposure, this control requires the close and continuing cooperation of all personnel involved.

b. The occupational health program is divided into two major specialties - Industrial Hygiene, and Occupational Medicine. Each of these specialties has, as one of its major functional components, a long-term surveillance program. Industrial hygiene involves the surveillance of the workplace and the evaluation of any health hazards identified. Occupational medicine focuses on the medical surveillance of employees potentially exposed to the hazards identified during the industrial hygiene workplace evaluation and on diagnosis and treatment of acute occupational injuries and illnesses.

0802. Responsibilities

a. Director for Occupational Health Services at the BUMED designated servicing medical treatment facility is charged with the responsibility for providing occupational health support as follows:

(1) A comprehensive industrial hygiene program as described in Chapter 8 of reference 8-1. The program will ensure the development of an appropriate workplace-monitoring plan for each applicable workplace.

(2) Periodic evaluation of the conditions at each workplace as described in Chapter 8 of reference 8-1. The frequency of these evaluations will be no less than annual for workplaces with recognized potential health hazards.

(a) All workplace monitoring is the responsibility of the servicing Industrial Hygiene Department.

(b) The servicing Industrial Hygiene Department shall provide technical direction of workplace monitoring programs,

including training, procedures, sampling and analytical methods, and data analysis/interpretation.

(c) Training and certification of workplace monitors shall be provided by BUMED.

(3) The provision of other occupational health support, as requested to support OSH programs (e.g., training of personnel, selection of PPE, review of engineering control designs, consultation on hazardous waste and pollution control programs, disaster assistance, evaluation of indoor air quality, etc.).

(4) Administration and execution of personnel medical surveillance and evaluation programs using Navy-approved criteria.

(5) Maintenance of appropriate records relating to all occupational health-related aspects of the NAVOSH program.

(6) Maintenance of an Occupational Exposure Registry and Data Bank.

(7) The development of a bloodborne pathogen program.

b. COMNAVREG SW Safety Office in collaboration with the Director for Occupational Health Services shall:

(1) Establish and maintain an Occupational Health Program.

(2) Ensure all work activities are inspected for health hazards as required.

(3) Ensure industrial hygiene surveys are performed of work activities identified as having potential and/or actual health hazards.

(4) Determine the nature and extent of environmental hazards, which are present or believed to be imminent.

(5) Plan, initiate, and recommend appropriate action for correcting health hazardous conditions.

(6) Provide occupational health training as required.

c. Management shall:

(1) Ensure personnel report for scheduled medical examinations.

(2) Ensure personnel attend scheduled medical surveillance training.

(3) Ensure appropriate actions are initiated when fitness-for-duty examination results indicate that the employee is incapable of performing his/her assigned duties. Coordinate with Human Resources Office for reassignment of the employee to another job based on limitations set by the physician.

(4) Ensure appropriate medical examinations and determinations are accomplished prior to assignment of any personnel to a hazardous occupation or to areas requiring medical surveillance.

d. Supervisors shall:

(1) Schedule medical surveillance examinations as appropriate for personnel assigned to the medical surveillance program and ensure attendance.

(2) Schedule personnel for medical surveillance training and ensure attendance.

(3) Ensure that personnel report to the Servicing Medical Treatment Facility for medical treatment when a job-related injury occurs.

(4) Evaluate each employee's work proficiency on a continuous basis to detect job performance deficiencies which may appear to be medically based; or, where the employee has suffered a large number of injuries, illnesses, motor vehicle mishaps; or is regularly absent from work due to illness or injury.

e. Employees shall:

(1) Report all job-related injuries and illnesses to the immediate supervisor.

(2) Report for medical surveillance examinations as directed.

(3) Attend required medical surveillance training when scheduled.

CHAPTER 8

REFERENCES

- 8-1 OPNAVINST 5100.23 (Series), Navy Occupational Safety and Health Program Manual

CHAPTER 9

NAVOSH INSPECTION PROGRAM

0901. Discussion. The Navy Occupational Safety and Health (NAVOSH) Inspection Program is necessary to ensure safe and healthful workplaces for all Navy employees. The inspection program is designed to identify deficiencies, which must be corrected to protect personnel and meet the requirements established by federal agencies.

NOTE: Nothing in this chapter supersedes or relieves the responsibility and accountability of all managers, supervisors and employees to maintain safe and healthful environments. To this end, workplaces and their surrounding areas should be continuously inspected by supervisors and management, and corrective action taken immediately on noted unsafe/unhealthful conditions. Likewise, all employees should immediately notify their supervisors of any conditions they consider unsafe/unhealthful.

0902. Inspection Format

a. Base Operation Support (BOS) Program Managers shall, regardless of the geographical location of their workplaces, be simultaneously inspected. Reports of Inspections shall be prepared and issued by the cognizant Site Manager in the format desired by the customer.

b. Other customer activities shall receive separate workplace inspections, with written report of the inspections issued to the respective Commanding Officer/Officer-in-Charge. Workplaces and/or facilities under the cognizance of Program Managers will not be inspected during command inspections.

c. The Regional Safety Office shall establish and keep current a Procedures and Guidelines (P&G) governing the conduct of workplace inspections. Site Safety Managers shall develop a local Standard Operating Procedure (SOP) adhering to the provisions of the P&G. The Inspection P&G may be viewed by accessing the Regional Safety portion of the COMNAVREGSW Homepage at www.cnrsw.navy.mil.

0903. Qualifications for Inspectors. Personnel conducting OSH Workplace Inspections shall be fully qualified in accordance with reference 9-1, and be assigned to the cognizant Safety Office. Site Managers shall establish a method to evaluate each inspector on a quarterly basis. The method established shall, as a minimum, include provisions for the Site Manager to accompany and

evaluate the inspector in the field.

0904. Inspection Frequency

a. Assigned Site Occupational Safety and Health professionals will inspect all workplaces at least annually. (once every 12 months).

b. Workplaces designated High Hazardous based upon an assessment of potential for injuries, occupational illnesses or damage to Navy property will be inspected every 6 months. Assessments conducted shall include, but not be limited to the following factors.

(1) Any disabling injury associated with the workplace for the past three years.

(2) Supervisors not enforcing safety rules, standard operating procedures, and training requirements.

(3) Trends of non-disabling mishaps, injuries, and illnesses.

(4) Discrepancies noted as part of Industrial Hygiene Workplace Monitoring Plan, Management Evaluations, and other internal and external reports of inspections.

(5) Number of personnel exposed to the hazards and frequency the hazardous operation/processes are performed by personnel assigned. (i.e., one person welding once a month versus 5 people welding daily).

c. Workplaces should not be designated High Hazardous simply based upon the type of work that is being performed. However and especially in industrial settings, the involvement of the supervisor in the care and attention they afford to people and facilities shall be of utmost concern when conducting the assessment.

0905. Responsibilities

a. Supervisors shall conduct day-to-day inspections of their area(s) in order to identify hazardous conditions or unsafe acts. Identified hazards shall be immediately corrected. Supervisors shall accompany OSH Workplace Inspectors during their inspections, and take notes on deficiencies identified. The notes shall be used by the supervisor to keep management personnel informed, and to initiate action to abate identified deficiencies.

b. The COMNAVREG SW Safety Program Manager shall ensure that formal workplace safety and health inspections are conducted in accordance with reference 9-1.

c. Management personnel shall

(1) Provide assistance to OSH Inspectors, as requested, to ensure inspections proceed unhindered.

(2) Respond in a positive manner and provide assistance as needed by the OSH Inspector if a "no notice" inspection is conducted.

(3) Conduct inspections to verify that deficiencies reported as corrected have, in fact, been corrected and to focus on specific problem areas. Section C, Appendix 9-A, shall be used to document follow-up inspections.

0906. Workplace Inspections

a. NAVOSH Deficiency Notices (COMNAVREG SW Form 5100/12), Appendix 9-A, shall be generated by the OSH Office for all workplace hazards noted during an inspection. They shall be provided to the official in charge of the operation inspected within 15 working days of when the deficiency was identified. Verifications shall be maintained by the Safety Office that the NDN's have been provided within the required 15-day requirement shall be maintained (no set format).

b. Violations of NAVOSH standards and other deficiencies noted during inspections shall be corrected following the procedures of Chapter 12 found in this instruction and in Chapter 12 of reference 9-1.

c. Inspections shall be completed as quickly as possible, but under no circumstances last longer than 30 working days. Inspection shall be conducted in a manner to preclude unreasonable disruption of the operations of the workplace.

d. Inspections shall be conducted with or without prior notice. Inspections of areas containing classified information shall be conducted following the policies outlined in Navy security regulations.

e. Inspectors may deny the right of accompaniment to any person whose participation interferes with a fair and orderly inspection or who lacks the required security clearance.

f. Inspectors shall discuss matters affecting safety and health with employees or employee representatives, and offer them the opportunity to identify unsafe or unhealthful working conditions while remaining anonymous if they so desire.

g. When an inspector discovers an imminent danger situation during an inspection, he/she shall bring it immediately to the attention of supervisory personnel (in certain cases the commanding officer or program manager of the activity). The inspector shall stop affected work, and remove personnel not abating the hazard from the affected area. In the event of an imminent danger situation, activities shall initiate immediate abatement action or terminate the operation.

CHAPTER 9

REFERENCES

- 9-1 OPNAVINST 5100.23 (Series), Navy Occupational Safety and Health Program Manual

APPENDIX 9-A

NAVOSH DEFICIENCY NOTICE		
SECTION A - DEFICIENCY INFORMATION	I.D. NO:	
Organization:	Location:	
Description of Hazard:		
Standard Violated:	RAC:	
OSH Official:	Date:	
SECTION B - ABATEMENT STATUS (COMPLETE ALL APPLICABLE PARTS)		
• INTERIM CONTROLS		
Number of Personnel Affected _____		
Reviewed, Approved and/or Revised by OSH Office. Initials _____ Date _____ (Controls in effect for more than 30 days)		
• ABATEMENT PROJECT INITIATED		
Project Description:	Action Taken (Include Work Orders/Purchase Request numbers and date as appropriate)	
	<table border="1" style="width: 100%;"> <tr> <td style="width: 50%;">Cost Estimate:</td> <td>Completion Date (Est):</td> </tr> </table>	Cost Estimate:
Cost Estimate:	Completion Date (Est):	
• DEFICIENCY CORRECTED		
Corrections Made:	Date:	
	Cost	
	<table border="1" style="width: 100%;"> <tr> <td style="width: 50%;">Labor:</td> <td>Material:</td> </tr> </table>	Labor:
Labor:	Material:	
Signature:		
SECTION C - COMMENTS		

Follow-Up Inspection Date _____	Initials _____
--	-----------------------

COMNAVREGSW 5100/12 (10-98)

CHAPTER 10

EMPLOYEE REPORTS OF UNSAFE OR UNHEALTHFUL WORKING CONDITIONS

1001. Discussion. All military and civilian personnel are strongly encouraged to participate in the Navy Occupational Safety and Health (NAVOSH) Program. Workplace hazard reporting and appeal procedures have been developed which include safeguards to ensure personnel are not subjected to any restraint, interference, coercion, discrimination, or reprisal for their participation in the Occupational Safety and Health (OSH) Program. Detection of unsafe or unhealthful working conditions at the earliest possible time and prompt correction of those and related hazards are major factors in the NAVOSH program. Correction at the lowest possible working level is also an essential element of mishap prevention.

1002. Hazard Reporting

a. Military or civilian personnel who observe unsafe or unhealthful work practices or conditions, or violations of established Occupational Safety and Health (OSH) standards, shall be encouraged to advise their workplace supervisor of the condition noted, either verbally or in writing. It is not necessary to have knowledge of standards; if it looks wrong, it probably is.

b. The workplace supervisor shall promptly initiate appropriate corrective action upon receipt of any verbal or written report of unsafe or unhealthful work practices or conditions. Although employees are encouraged to allow for supervisor involvement, they are not required to go through supervisors when submitting a report to the local Safety Office. The employee shall not be subjected to any form of restraint, interference, coercion, discrimination, or reprisal for reporting what they believe to be unsafe or unhealthful.

c. Any person may submit a written report using Appendix 10-A directly to the Site Safety Office, who shall totally protect the person's identity, if requested.

d. Upon receipt of a written or oral report, the Site Safety Office shall:

(1) Log in the report and contact the originator to discuss the seriousness of the reported hazard.

(2) Investigate all reports brought to its attention. Alleged imminent danger situations shall be investigated within

24 hours. Potentially serious situations shall be investigated within three days.

(3) Provide an interim or complete response to the report's originator within 10 working days in accordance with reference 10-1. An interim response will be forwarded if the investigation is incomplete at this time.

e. If the reported situation involves a health hazard, as opposed to a safety hazard, the Site Safety Office shall refer the report to the cognizant servicing medical treatment facility for investigation.

1003. Appeals

a. If the originator of the report is dissatisfied with the assessment of the alleged hazard made by the Safety Office or with actions taken to abate a confirmed hazard, he or she is encouraged to confer with the Safety Office to discuss the matter further. If after the discussion, the originator is still dissatisfied, an appeal may be made to the cognizant Commanding Officer, Officer in Charge, or ACOS. The appeal must be in writing and contain at least the following information:

(1) A description of the alleged hazard including its location and standards violated if known (a copy of the original hazard report will suffice);

(2) How, when, and to whom the original report of the alleged hazard was submitted; and

(3) What actions (if known) were taken as a result of the original report.

b. The activity commander, or his/her representative, shall respond to the originator of the appeal within 10 working days. The response shall contain the office and address of the next higher level of appeal.

c. If the originator of the report is still dissatisfied or if he/she has not received a response within 20 working days, he/she may appeal to the next higher level of command. The sequence of appeals is listed on the back of Appendix 10-A. Each appeal shall include the information prescribed in paragraph 1003a of reference 10-1 with emphasis on the actions taken by the reviewing authority on the previous appeal and reasons why the employee is still dissatisfied.

d. Forms and written procedures for the submittal shall be, as a minimum, maintained on all official safety bulletin boards. Initial workplace indoctrination of employees shall contain instructions on the availability of the forms and their purpose.

1004. Retention of Reports. Unsafe and unhealthful working condition reports and records of abatement actions taken shall be retained for at least five years following the end of the calendar year in which they occurred. The Site Safety Offices will retain their records.

1005. Adherence to Procedures. Strict adherence to the above reporting procedures and the chain of command for appeal procedures is absolutely essential. Reports of appeals which bypass established procedures will be returned to the originator, delaying prompt action.

CHAPTER 10

REFERENCES

- 10-1 OPNAVINST 5100.23 (Series), Navy Occupational Safety
and Health (NAVOSH) Program Manual

APPENDIX 10-A

NAVY EMPLOYEE REPORT OF UNSAFE OR UNHEALTHFUL WORKING CONDITION	
1. THE UNDERSIGNED (check one) <input type="checkbox"/> EMPLOYEE <input type="checkbox"/> REPRESENTATIVE OF EMPLOYEES BELIEVES THAT A VIOLATION OF AN OCCUPATIONAL SAFETY OR HEALTH STANDARD WHICH IS A JOB SAFETY OR HEALTH HAZARD HAS OCCURRED AT	
a. Navy installation/activity and mailing address	
b. Building or worksite where alleged violation is located, including address	
2. NAME AND PHONE NUMBER OF GOVERNMENT SUPERVISOR AT SITE OF VIOLATION	
3. DOES THIS HAZARD IMMEDIATELY THREATEN DEATH OR SERIOUS PHYSICAL HARM? <input type="checkbox"/> NO <input type="checkbox"/> YES	
4. BRIEFLY DESCRIBE THE HAZARD WHICH EXISTS INCLUDING THE APPROXIMATE NUMBER OF EMPLOYEES EXPOSED TO OR THREATENED BY SUCH A HAZARD	
5. IF KNOWN, LIST BY NUMBER AND/OR NAME, THE PARTICULAR STANDARD (OR STANDARDS) ISSUED BY THE AGENCY WHICH YOU CLAIM HAS BEEN VIOLATED	
6. TO YOUR KNOWLEDGE, HAS THIS VIOLATION BEEN THE SUBJECT OF ANY UNION/MANAGEMENT GRIEVANCE OR HAVE YOU (OR ANYONE YOU KNOW) OTHERWISE CALLED IT TO THE ATTENTION OF, OR DISCUSSED IT WITH, THE GOVERNMENT SUPERVISOR <input type="checkbox"/> NO <input type="checkbox"/> YES (List results, including any efforts by management to correct violation)	
7. EMPLOYEE TYPED OR PRINTED NAME	8. EMPLOYEE SIGNATURE
9. EMPLOYEE ADDRESS	10. EMPLOYEE PHONE NUMBER
11. MAY YOUR NAME BE REVEALED? <input type="checkbox"/> NO <input type="checkbox"/> YES	12. ARE YOU A REPRESENTATIVE OF EMPLOYEES? <input type="checkbox"/> NO <input type="checkbox"/> YES (List organization name)
13. DATE FILED:	14. CASE NUMBER

COMNAVREGSWINST 5100.11D



COMNAVREGSW 5100/11 (10-98)

APPEAL PROCEDURES

1. If you are dissatisfied with the assessment of the alleged hazard made by the Safety Office or with actions taken to abate a confirmed hazard, you are encouraged to confer with the COMNAVREG SW Safety Office to discuss the matter further. If after the discussion, you are still dissatisfied, an appeal may be made to the cognizant Commanding Officer, Officer in Charge, or ACOS.

The appeal must be in writing and contain at least the following information:

a. A description of the alleged hazard including its location and standards violated if known (a copy of the original hazard report will suffice);

b. How, when, and to whom the original report of the alleged hazard was submitted; and

c. What actions (if known) were taken as a result of the original report.

2. The CO, OIC, ACOS, or his/her representative will respond within 10 working days. An interim response will be forwarded if the investigation is incomplete at this time.

3. If still dissatisfied or if you have not received a response within 20 working days, you may appeal to the next higher level of command. The sequence of appeals thereafter shall be to:

A. Commander
Navy Region, Southwest
937 North Harbor Drive
San Diego, CA 92132-0058

B. Commander in Chief
U.S. Pacific Fleet
Code N466
250 Makalapa Drive
Pearl Harbor, HI 9686-7000

C. Chief of Naval Operations
Code N454
Crystal Plaza #5 Room 678
2211 Jefferson Davis Highway
Arlington, VA 22244-5180

D. Assistant Secretary of the Navy
Installation and Environment
1000 Navy Pentagon
Room 4A686
Washington, D.C. 20350-1000

E. Under Secretary of Defense
Environmental Security
Pentagon Room 3E792
Washington, D.C. 20310

The final appeal authority for military personnel is the Under Secretary of Defense Environmental Security. In the event you are a dissatisfied civilian employee, you may contact, in writing, the Office of Federal Agency Safety Programs, U.S. Department of Labor, Washington, D.C. 20210. This final appeal must describe in detail, the entire previous processing of appeal and set forth objections thereto.

*** PLEASE CONTACT THE COMNAVREG SW SAFETY OFFICE IF YOU DESIRE ADDITIONAL INFORMATION OR IF YOU ARE DISSATISFIED WITH THE ACTIONS TAKEN.**

CHAPTER 11

INSPECTIONS AND INVESTIGATIONS OF WORKPLACES BY FEDERAL AND STATE
OSH OFFICIALS

1101. Discussion. Reference 11-1 provides instructions for the inspection and investigation of COMNAVREG SW workplaces by federal and state OSH officials.

1102. Responsibilities

a. COMNAVREG SW Safety Manager shall:

(1) Designate OSH coordinators for each COMNAVREG SW complex (Point Loma, Coronado, and Mainside) and for commands outside the San Diego geographical area.

(2) Provide a list of OSH complex coordinators, which includes the name, address and telephone number, by letter, to the appropriate OSHA Regional Office. Provide copies of such letters to CNO (N45).

b. COMNAVREG SW Safety Office shall be the focal point for all correspondence, as described in Chapter 11 of reference 11-1, with CNO (N45), CINCPACFLT and COMNAVSAFECEN.

CHAPTER 11

REFERENCES

- 11-1 OPNAVINST 5100.23 (Series), Navy Occupational Safety and Health (NAVOSH) Program Manual

CHAPTER 12

DEFICIENCY (HAZARD) ABATEMENT PROGRAM

1201. Discussion

a. The Navy incurs significant costs as a result of injuries, illnesses, and property damage resulting from injuries and illnesses associated with workplace hazards. Therefore, it is essential that a formal program be in place that eliminates or controls all identified hazards in a systematic manner.

b. Reference 12-1 establishes guidance to be followed in developing hazard abatement programs. This chapter amplifies that guidance and provides additional information concerning the region's program.

1202. Deficiency Processing and Tracking. An annual (once every 12 months) inspection of each workplace will be conducted to identify facilities, equipment, and operations that are hazardous or do not comply with Occupational Safety and Health (OSH) standards. OSH deficiencies may also be identified through special inspections, employee hazard reporting system and the industrial hygiene survey program.

a. Risk Assessment. Each identified and validated hazard shall be assigned a Risk Assessment Code (RAC) by the OSH Inspector. The RAC is an expression of risk, which combines the elements of hazard severity and mishap probability. A complete description on how a RAC is derived is outlined in reference 12-1.

b. NAVOSH Deficiency Notice. A Navy Occupational Safety and Health (NAVOSH) Deficiency Notice (NDN), Appendix 12-A, shall be used as an integral part of the OSH Deficiency Abatement Program. Use of the form requires the following action:

(1) As part of workplace inspections, OSH Inspectors shall identify safety-related deficiencies by completing Section A of a NDN, and issuing the NDN to the activity under a cover letter.

(2) Upon receipt of the report, the supervisor in charge of the workplace shall post copies of respective NDNs in the immediate area of noted deficiencies until the hazard has been abated.

(3) Supervisors in charge of the workplaces shall complete section B of the NDN.

c. Supervisor and management shall take prompt action to correct noted deficiencies and, within 30 days of the date of the NDN, return it (with section B filled in) to the site Safety Office.

d. Interim Controls. It is recognized that immediate abatement of deficiencies may not always be possible and that some temporary deviation from NAVOSH standards may be required. The following actions shall be taken to document these interim controls:

(1) The supervisor of the inspected workplace shall:

(a) Establish interim controls as soon as the deficiency is noted (don't wait for the NDN, take immediate action on the date of the inspection); and

(b) Document interim controls in Section B of the NDN upon its receipt.

(2) The OSH Office shall review and approve interim controls that remain in effect for more than 30 days.

e. When a deficiency has been fully abated the blocks on the form indicating completed abatement action taken, actual cost, and date completed action taken shall be annotated by the workplace supervisor, and submitted to the site Safety Office.

f. Abatement Plan. Deficiencies assigned a RAC 1, 2, or 3 that require more than 30 days to correct shall be prioritized by the site Safety Office using the guidance of reference 12-1, and recorded in a formal hazard abatement plan maintained by the site Safety Office. The Site Safety Manager shall review the abatement plan at least semi-annually. The review shall be made to ensure that the plan is updated to reflect new findings and to show current status of actions taken to abate outstanding deficiencies.

1203. Hazard Abatement Project Development. The Safety Manager will develop Hazard Abatement projects to correct hazards that are beyond the funding capability of COMNAVREG SW.

1204. Responsibilities

a. Inspected organizations/commands and program managers shall take the following action upon receipt of the inspection report:

(1) The supervisor of the workplace inspected shall correct noted deficiencies by the most expeditious means possible.

(2) Corrective actions are to be annotated in Section B of the NDN, and then delivered to the site Safety Office. The NDN shall be delivered within 15 working days of the NDN's observed date.

(3) When hazards cannot be abated within 30 days, the supervisor of the inspected workplace shall document interim actions taken in Section B of the NDN.

(4) To abate deficiencies, use work requests, trouble calls and/or other administrative actions. Submission of a trouble call or work request does not relieve the inspected facility or supervisors of the responsibility for correction of the deficiency.

b. Public Works Officers. Public Works Operations Officers are responsible for the following actions concerning safety and occupational health deficiencies for class II property under their cognizance.

(1) When requested, assist the workplace supervisor in abating all deficiencies.

(2) Process all safety-related deficiency Work Order requests within 15 working days of receipt.

(3) Receive, coordinate and act promptly upon all safety related trouble calls.

(4) When abatement is beyond local funding, assist the site Safety Manager in preparing Hazard Abatement projects.

(5) Ensure that reports of unsafe or unhealthful working conditions receive appropriate attention to abate reported deficiencies.

c. Site Safety Manager. Shall be responsible for the following actions:

(1) Provide inspected facilities/organizations/program managers with a completed inspection report NLT 45 days from the start date of the inspection.

(2) Assist the inspected facilities/organizations/program managers in determining acceptable solutions to correct the reported deficiencies or developing interim controls.

(3) Monitor inspection reports to ensure identified deficiencies are abated within the time frame designated on the report. Contact the inspected facility/organization concerned when the deficiency has not been abated or the time period extended.

(4) Assist in providing training necessary to abate deficiencies in the workplace.

(5) Maintain a record of the action taken or requested to resolve the deficiencies. For those items requiring more than 30 days to abate, place the deficiency in the Abatement Log.

(6) Promptly investigate all reports of unsafe or unhealthful working conditions.

(7) The site Safety Manager shall be responsible for Hazard Abatement preparation and submission.

CHAPTER 12

REFERENCES

- 12-1 OPNAVINST 5100.23 (Series), Navy Occupational Safety and Health Program Manual

APPENDIX 12-A

NAVOSH DEFICIENCY NOTICE		
SECTION A - DEFICIENCY INFORMATION	I.D. NO:	
Organization:	Location:	
Description of Hazard:		
Standard Violated:	RAC:	
OSH Official:	Date:	
SECTION B - ABATEMENT STATUS (COMPLETE ALL APPLICABLE PARTS)		
<ul style="list-style-type: none"> • INTERIM CONTROLS Number of Personnel Affected _____ 		
Reviewed, Approved and/or Revised by OSH Office. Initials _____ Date _____ (Controls in effect for more than 30 days)		
<ul style="list-style-type: none"> • ABATEMENT PROJECT INITIATED 		
Project Description:	Action Taken (Include Work Orders/Purchase Request numbers and date as appropriate)	
	<table style="width:100%; border: none;"> <tr> <td style="border: none; width: 50%;">Cost Estimate:</td> <td style="border: none; width: 50%;">Completion Date (Est):</td> </tr> </table>	Cost Estimate:
Cost Estimate:	Completion Date (Est):	
<ul style="list-style-type: none"> • DEFICIENCY CORRECTED 		
Corrections Made:	Date:	
	Cost	
	<table style="width:100%; border: none;"> <tr> <td style="border: none; width: 50%;">Labor:</td> <td style="border: none; width: 50%;">Material:</td> </tr> </table>	Labor:
Labor:	Material:	
Signature:		
SECTION C - COMMENTS		
Follow-Up Inspection Date _____ Initials _____		

COMNAVREGSWINST 5100.11D

COMNAVREGSW 5100/12 (10-98)

CHAPTER 13

NAVY OCCUPATIONAL SAFETY AND HEALTH COST DATA

1301. Discussion

The Navy is required to submit Navy Occupational Safety and Health (NAVOSH) program cost data to the Department of Defense (DOD) on two separate occasions; i.e., the DOD and Presidential budget submissions. These submissions require a 3-year display of specific program costs by appropriation. In addition to these two formal submissions, this data is submitted on numerous occasions in response to Congressional and other inquiries.

1302. Applicability

The requirements of this chapter apply to the COMNAVREG SW Safety Office.

1303. Data Requirements. The Safety Office, using the guidelines listed in reference 13-1, shall submit required cost data to CINCPACFLT before 1 June of each year. OPNAV Form 5100/13, Appendix 13-A of reference (a), shall be used for this purpose.

CHAPTER 13

REFERENCES

- 13-1 OPNAVINST 5100.23 (Series), Navy Occupational Safety and Program Manual

CHAPTER 14

MISHAP INVESTIGATION, REPORTING, AND RECORDKEEPING

1401. Discussion. This chapter establishes Commander, Navy Region, Southwest (COMNAVREG SW) policy and procedures and assigns responsibility for mishap investigation, reporting, and record keeping requirements. The program shall be in compliance with references 14-1 and 14-2.

1402. Mishap Reporting Procedures. The cognizant headquarters command shall initiate a Headquarters' Mishap Investigation Board (HMIB) to investigate Class A mishaps or a mishap involving the inpatient hospitalization of three or more people occurring as the result of an operational mishap. In addition, certain Class B and C mishaps may occur for which CNO, COMNAVSAFECEN, or the cognizant headquarters command may require a headquarters command investigation. Class B mishaps, not requiring a HMIB investigation, shall be investigated by the Site Safety Office. Activity supervisors shall gather the initial mishap information on Class C and D mishaps and report it to the Site Safety Office (the Site Safety Office shall investigate further, as required).

1403. Action. The following mishap reports shall be made:

a. Civilian employees: Report all on duty mishaps immediately to their supervisor. This includes injuries, property damage, and motor vehicle mishaps. Report all traffic incidents involving government and private vehicles used during official business with or without injuries. Report all mishaps where there is damage to government equipment or property. Report all near mishaps.

b. Military personnel: Report all on duty mishaps immediately to their supervisor. This includes injuries, property damage, and motor vehicle mishaps. Report all off duty injuries immediately upon reporting for duty. Report all traffic incidents involving government vehicles and private vehicles used during official business with or without injuries. Report all mishaps where there is damage to government equipment or property. Report all near mishaps.

c. Special Interest Reports: Special emphasis shall be paid to the following categories of mishaps:

(1) Weight Handling Equipment (WHE) Mishap. WHE includes cranes and crane rigging gear. A WHE accident occurs when any one or more of the six elements (the crane; the operator; the riggers and crane walker; the rigging gear between the hook and the load; the load; and the crane's supporting structure) in the

crane operating envelope fails to perform correctly during crane operation, including operation during maintenance or testing resulting in personnel injury or death, material or equipment damage, dropped load, derailment, two blocking, overload; or collision, including unplanned contact between the load, crane and/or other objects. A component failure is not considered a mishap solely due to material damage unless the component failure results in damage to other components.

(2) Confined Space Mishap. Any mishap occurring in any confined space per chapter 27 of reference 14-1 or reference 14-3, where personnel fail to follow confined space program elements. This includes any fatality, injury or material (property) damage that results from a fire in a confined space.

(3) Lockout/Tagout Mishap. Any mishap involving the repair or maintenance of equipment or energy distribution systems attributed to a failure to use or follow lockout/tagout procedures, as Chapter 24 of reference 14-1 requires.

NOTE: Supervisors shall report, by telephone, all mishaps to the Site Safety Office by the close of the next business day. This is to allow adequate time for the Site Safety Office to log the mishap within 6 working days as required by reference 14-1. Deaths or incidents that cause three or more personnel to be hospitalized are to be reported immediately. Supervisors must keep the Site Safety Office informed on the status of personnel who are unable to work and immediately notify the Site Safety Office when the status of injured personnel has changed. The Site Safety Office may require supervisors to complete the SUPERVISORS' INVESTIGATION OF MISHAP (COMNAVREGSW 5100/26), Appendix 14-A, and submit it to the Safety Office. The use of a written report from the Supervisor does not eliminate the initial telephone report requirement.

d. The Site Safety Office shall transcribe the information provided by the supervisor onto the COMNAVREG SW mishap database along with further investigation findings as necessary to log the mishap. The Site Safety Office must log the mishap within 6 working days as required by reference 14-1. The Site Safety Office shall make a priority telephone report to COMNAVSAFECEN, COMNAVREG SW Headquarters, and CINCPACFLT or applicable Echelon Two command when any of the following occupationally related events occurs: (1) fatality, or (2) hospitalization of 3 or more Navy and/or non-Navy personnel. The Site Safety Office shall prepare reports required by reference 14-1 and messages required by reference 14-2 and send them to COMNAVREG SW Headquarters for review. COMNAVREG SW Headquarters shall forward to COMNAVSAFECEN and CINCPACFLT or the applicable Echelon Two command.

e. The COMNAVREG SW Safety Manager will determine which mishaps should be reviewed per reference 14-1. The object of the review is to determine compliance with and the adequacy of established NAVOSH standards and procedures identify the underlying cause(s) of the mishap and take corrective action to prevent recurrence. The review shall involve safety, medical, compensation, and other management personnel, as appropriate.

1404. Injury/Illness Treatment (Civilian Employees Only)

a. Reporting Procedures. Employees shall report immediately to their supervisor any occupational injury or illness. The supervisor shall furnish OPNAV 5100/9, Dispensary Permit (Appendix 14-B) or equivalent to civilian employees who need treatment. Activities shall not permit employees to visit the Servicing Medical Treatment Facility without having obtained the form, except where necessary to avoid delay in treatment to the detriment of an employee. In this case, activities may complete the form after the patient has been removed to the MTF.

b. All personnel, except where necessary to avoid delay in treatment to the detriment of an employee, shall first report to the MTF for administrative purposes. The employee may then choose treatment at the MTF, a private hospital, or by a private physician. Navy civilians covered by Federal Employees Compensation Act (FECA) who elect treatment by a qualified local physician or hospital shall meet this administrative requirement. Employee should use the forms Office of Workers Compensation Program (OWCP) forms to receive FECA benefits. For information on where to obtain OWCP forms locally, contact the Human Resources Office servicing the activity.

1405. Mishap Investigation Training. Personnel who conduct Class A, B, and C mishap investigations shall be trained in accordance with reference 14-1.

1406. Recording of Occupational Injuries/Illnesses of Navy Personnel

a. The Site Safety Office shall maintain the mishap data in a computerized Log of Navy Injuries and Occupational Illnesses for civilian, military on-duty and military off-duty personnel. Personnel shall adhere to Procedures and Guidelines provided by COMNAVREG SW Headquarters.

b. The Site Safety Office shall complete and furnish to serviced activities Annual Reports of Navy Civilian Occupational Injuries and Illnesses (Appendix 14-C) for Unit Identification Codes (UICs) serviced. Upon receipt, activities shall post their

report in conspicuous places throughout the command no later than 45 days after the close of the fiscal year, to remain posted for at least 30 days.

1407. Securing the Scene of the Mishap. If any Class A mishap or mishap involving the inpatient hospitalization of three or more people occurs, except to the extent necessary to protect employees and public, the commander, commanding officer or officer in charge of the activity or location where the mishap occurred shall ensure that employees do not disturb or remove evidence from the mishap scene. Do not release the scene until authorized by the Headquarters' Mishap Investigation Board leader who will coordinate with other investigating bodies (e.g., OSHA, JAG).

CHAPTER 14

REFERENCES

- 14-1 OPNAVINST 5100.23 (Series), Navy Occupational Safety and Health Program Manual
- 14-2 OPNAVINST 5102.1 (Series), Mishap Investigation and Reporting
- 14-3 NAVSEA S6470-AA-SAF-010, Gas Free Engineering Program

APPENDIX 14-A
SUPERVISORS' INVESTIGATION OF MISHAP

SUPERVISORS' INVESTIGATION OF MISHAP
COMNAVREGSW 5100/26 (10-98)

From:	To: NAVOSH	Via:	Report No. (NAVOSH)
Name and Code of Injured or Operator of Vehicle:			
Sex:	Age:	Date of Mishap:	Time:
Injured or Operator is ("X" One):			
Military on Duty ()	Civilian (Navy) ()	Full Time ()	Other ()
Military off Duty ()	Civilian (NAF) ()	Part Time ()	Contractor ()
Type of Mishap or Injury ("X" as Applicable):			
Injury on the Job ()	Illness ()	Chemical Exp. ()	Motor Vehicle ()
Sports Injury ()	Home Injury ()	Property Damage ()	
Injury/Illness Data (Military/Civilian/Other):			
Occupation_____	Geographical location of mishap		
Dept/Workcenter_____	Regional Complex		
Rank/Rate/Series/Grade_____	Date stopped work		
Social Security No._____	Date returned to work		
Nature of Injury/Illness			
Months Experience at time of Mishap/Illness_____	Medical attention: Yes () No ()		
Day(s) away from normal work_____	Number of days hospitalized		
Day(s) restricted duty_____	Return visit to medical for follow-up: Yes () No ()		
Description of Mishap/Illness (Attach continuation sheet if necessary):			
Corrective Action Taken or Proposed (Attach continuation sheet if necessary):			
Motor Vehicle Data:			
GMV	License Number_____	Year_____	Model_____ Body Style
PMV	License Number_____	Year_____	Model_____ Body Style
Motorcycle	License Number_____	Year_____	Body Style_____ CC
Motor Vehicle/Property Damage (Estimate in dollars):			
Date:	Typed Name and Signature of Supervisor:		
Phone No:			

APPENDIX 14-B

NAVY REGION SOUTHWEST DISPENSARY PERMIT
CNREGSW 5100/9 (12-98)

PART I (To be completed by immediate supervisor)

DATE OF REFERRAL	NAME OF EMPLOYEE BEING REFERRED	SSN	CODE
OCCUPATION OF EMPLOYEE	GRADE	PRINTED NAME AND TELEPHONE NUMBER OF SUPERVISOR	
REASON FOR REFERRAL (Check one block and describe injury, illness or other)			
+ ON THE JOB INJURY _____ _____			
+ OCCUPATIONAL ILLNESS _____ _____			
. OTHER _____ _____			
DATE AND TIME OF INJURY	TIME EMPLOYEE LEFT WORK	TIME EMPLOYEE RETURNED TO JOB	
IMMEDIATE SUPERVISOR (Signature)		EMPLOYEE (Signature)	

PART II (To be completed by Medical Officer)

TIME EMPLOYEE REPORTED	TIME EMPLOYEE RELEASED
DISPOSITION (CHECK ONE)	
* RETURN TO FULL DUTY , SEND HOME) PLACE ON LIGHT DUTY FOR A PERIOD OF _____) REFERRED TO PRIVATE PHYSICAN + OTHER (SPECIFY) _____ _____	
RESTRICTIONS	
) NO WORK AROUND HAZARDOUS MACHINERY . NO DRIVING . NO KNEELING OR SQUATTING (CIRCLE ONE) 10 20 30 40 50 PERCENT OF TIME . MUST SIT _____ PERCENT OF TIME . NO WORK IN EXCESSIVE NOISE AREAS . NO PROLONGED WALKING, BENDING OR STANDING . NO LIFTING IN EXCESS OF _____ POUNDS . NO CLIMBING ABOVE _____ FEET OR STAIRS OVER _____ FEET . MUST AVOID DUSTS, FUMES, SKIN IRRITATIONS OR SENSITIZERS . OTHER _____	
RETURN FOR FURTHER TREATMENT	
. YES . NO (IF YES, SPECIFY DATE EMPLOYEE SHOULD RETURN) _____	
MEDICAL OFFICER (Signature)	

CHAPTER 15

RESPIRATORY PROTECTION

1501. Discussion

a. This chapter establishes requirements and responsibilities for COMNAVREG SW's Respiratory Protection Program.

b. COMNAVREG SW Safety Headquarters is responsible for establishing a comprehensive Respiratory Protection Program (RPP) and appointing a qualified Regional Respiratory Protection Program Manager (RPPM). Assigned Assistant Respiratory Protection Program managers (ARPPMs) are responsible for implementation, execution, and auditing of the Regional RPP at their site. The customer activity's designated Respiratory Protection Program Assistant (RPPA) is responsible to administer and coordinate the Regional RPP at the workcenter level.

c. Many of the repair and maintenance activities performed by COMNAVREG SW facilities generate air contaminants that can be dangerous, if inhaled. The best means of protecting employees from exposure to such potentially hazardous materials is through the use of engineering control measures, such as local exhaust ventilation. When effective engineering controls are not feasible, or while activities are in the process of instituting them, appropriate respiratory protection shall be used.

d. When respiratory protection is required, COMNAVREG SW customer activities shall comply with the regional respiratory protection program per this chapter and references 15-1 and 15-10.

1502. Applicability

a. The provisions of this chapter shall apply to all COMNAVREG SW customer commands. The Respiratory Protection Program Manager (RPPM), Assistant Respiratory Protection Manager (ARPPM) and the Respiratory Protection Program Assistant (RPPA) shall maintain a listing of employees requiring respiratory protection, and shall authorize those employees to wear respiratory protective equipment. Customer activities shall purchase and provide appropriate respiratory protection equipment to their employees.

b. The provisions of this chapter do not apply to:

(1) Contractors.

(2) Personnel wearing respiratory protection for the sole purpose of protection against airborne radioactive contamination associated with the Naval Nuclear Propulsion Program, which is governed by NAVSEA 389-0288 (Radiological Controls)

c. Respirator Use for Documented Health Hazards. Respiratory protection shall only be issued to the following personnel:

(1) Employees in areas known to have contaminant levels requiring the use of respiratory protection or in which contaminant levels requiring the use of respiratory protection may create a hazard without warning (e.g., emergency purposes such as hazardous material spill responses).

(2) Employees performing operations documented as an inhalation hazard and in the immediate vicinity where operations generate hazardous levels of contaminants.

(3) Employees in suspect areas or performing operations suspected of being health hazardous, but for which adequate sampling data does not exist.

(4) Employees performing operations for which the Occupational Safety and Health Administration (OSHA) requires respiratory protection.

(5) Employees performing operations where OSHA permits the employee to choose to use a respirator (i.e. Lead).

(6) Any other employee for whom the use of respiratory protection is deemed appropriate by the RPPM or ARPPM - for humanitarian or morale use - (voluntary respirator use).

d. Voluntary Respirator Use. When respirators are not required, voluntary use of respiratory protection is allowed, if the respirators are issued and controlled by the ARPPM or RPPA and the following criteria are met.

(1) Annually provide respirator users with training, fit testing and a medical evaluation. **Personnel may not supply their own respirators.**

(2) NIOSH or NIOSH/MSHA approved respirators must be selected for the perceived hazard. **Only elastomeric respirators** (facepieces that are made of rubber-like synthetic polymer, such as silicone rubber) may be selected, approved and issued with the appropriate respirator cartridge for the perceived hazard.

(3) Filtering facepiece respirators (air-purifying respirators) with facepieces consisting of filter media are prohibited for use.

(4) Issuance of voluntary use respirators shall not be used as a justification for avoiding further evaluation of health hazards.

(5) Surgical masks do not provide protection against air contaminants and shall NEVER be used in place of a respirator.

1503. Selection of Respirator Cartridges and Gas Mask Canisters

a. The cognizant Industrial Hygiene survey shall be used to determine the proper respirator and cartridge selection whenever possible. Navy policy no longer permits reliance on odor threshold and other warning properties as the sole basis for determining that an air-purifying respirator will afford adequate protection against exposure to gas or vapor contaminants.

b. The RPPM shall ensure that the respiratory protection program provides a change schedule for chemical canisters/cartridges based on objective information or data that will ensure that canisters and cartridges are changed before the end of their service life per reference 15-1.

1504. Breathing Air Requirements

a. Compressed breathing air shall meet at least the minimum requirements for Grade D breathing air described in references 15-2 and 15-3.

b. Customer activities shall fund as necessary monitoring of the breathing air quality at least quarterly.

1505. Respirator Selection Considerations

a. Only respirators that are currently approved by National Institute for Occupational Safety and Health (NIOSH) or NIOSH/Mine Safety and Health Administration (MSHA) shall be used. The RPPM or ARPPM shall select respiratory protection equipment using the most current NIOSH Certified Equipment List and the most conservative assigned protection factors listed in references 15-4 and 15-5.

b. The Defense General Supply Center (DGSC) issues specific national stock numbers (NSNs) for NIOSH approved respirators (see reference 15-6).

c. As a minimum, the RPPM or ARPPM shall consider the following factors to correctly assess the nature of the hazard requiring respiratory protection:

(1) The current workplace evaluation conducted by the cognizant industrial hygienist.

(2) The chemical, physical, and toxicological properties of the contaminant such as:

(a) Warning properties of the contaminant gas or vapor (smell, taste, eye irritation, or respiratory irritation).

(b) Whether employees can absorb the contaminant through the skin.

(c) Whether any of the contaminants are Immediately Dangerous to Life or Health (IDLH) or whether the contaminant would produce injurious effects after prolonged exposure.

(3) Concentration of the contaminant in the atmosphere.

(4) Permissible exposure limit (PEL) for the contaminant(s).

(5) Whether an oxygen-deficient or oxygen-rich atmosphere exists or may be created.

(6) Whether toxic, flammable, or explosive by-products are present or may be produced.

(7) The nature, extent, and frequency of operations personnel will be performing (e.g., welding, painting, etc.) in the course of this employment.

(8) Sorbent efficiency of cartridge or canister.

(9) Any possibilities of high heat reaction with sorbent material in the cartridge or canister.

(10) Any possibility of shock sensitivity (explosion hazard) of the substances absorbed on the cartridge or canister sorbent.

(11) Respirator assigned protection factor or degree of protection provided per Navy Environmental Health Center (NEHC) Technical Manual, Industrial Hygiene Field Operations Manual, latest revision.

d. Respirators for entry into IDLH atmospheres. Should it become necessary to enter an oxygen deficient atmosphere (<19.5 percent oxygen) or an IDLH atmosphere, only the following types of respirators may be used:

(1) Full facepiece, open circuit, pressure demand Self Contained Breathing Apparatus (SCBA) with an air cylinder rated for at least 30 minutes.

(2) Full facepiece, closed circuit, pressure demand (SCBA) (the lowest rated service life of these devices is 60 minutes).

(3) A full facepiece combination pressure demand supplied-air respirator equipped with an auxiliary self contained air supply of 15 minutes to ensure escape from the IDLH area. The auxiliary self-contained air supply may only be used for egress purposes. If the self-contained air supply (15-minute supply) is insufficient to ensure escape, then a SCBA must be used.

e. Refer to Chapter 27 for safe entry procedures into IDLH atmospheres.

f. Respiratory protection for firefighting: Full facepiece, open circuit, pressure demand, SCBA approved by NIOSH and NFPA that is equipped with an air cylinder rated for at least 30 minutes.

g. Issuance of Respirators. The respirator user's supervisor or designated RPPA will order and issue the appropriate respiratory protection equipment. Respiratory equipment will not be issued for use until verification of successfully completing the following items:

(1) Periodic medical evaluation

(2) Annual Training

(3) Annual fit testing

1506. Respirator Fit Testing

a. The RPPM, ARPPM, and RPPA shall maintain a list of all personnel enrolled into the RPP. Supervisors shall ensure their employees are current with the required medical certification and shall schedule fit testing on an annual basis. The servicing Site

Safety office will be fully responsible to provide ALL initial and annual fit testing requirements.

b. All tight-fitting positive and negative pressure respirators shall be either qualitatively or quantitatively fit tested by the ARPPM initially and annually. To wear full face, negative pressure, air purifying respirators in atmospheres up to their assigned protection factor of 50, as required by reference (1), personnel must be quantitatively fit tested and the respirator must achieve a fit factor of at least 500, which equates to a safety factor of 10.

c. Qualitative Fit Testing. The respirator is not functioning properly unless the air comes only from the cartridge(s), canister, or airline in the case of supplied-air respirators. The ARPPM or RPPA shall fit test each individual who is required to use a respirator at the time of initial fitting and annually thereafter. The ARPPM or RPPA shall document and perform fit testing per reference 15-2. Individuals shall not wear respiratory protection equipment when:

(1) Facial hair comes between the sealing surface of the facepiece and the face, or interferes with valve function.

(2) Any condition that interferes with the face-to-facepiece seal or valve function. In addition, if any employee wears corrective glasses or goggles or other personal protective equipment, the employer shall ensure that such equipment is worn in a manner that does not interfere with the seal of the facepiece to the face.

d. Quantitative Fit Testing. The ARPPM shall quantitatively fit test respirators where regulations require, such as when employees use respirators for protection against lead or asbestos (references 15-7 and 15-8). They shall conduct testing per the test equipment manufacturer's instructions and references 15-4 and 15-8.

1507. Inspection and Cleaning of Respirators

a. Respirators issued for the exclusive use of an employee shall be cleaned and disinfected as often as necessary to be maintained in a sanitary condition. Respirators issued to more than one person or for emergency purposes shall be cleaned and disinfected after each use.

b. Respirators must be checked for missing, deteriorated, and/or non-functioning parts.

c. Designated employees, such as the RPPA(s), shall inspect each emergency respirator after use or at least every month and maintain a record of inspection dates, findings, etc., per reference 15-2.

d. Storage area shall be clean, cool, dry, and away from damaging or contaminating chemicals and particulates (i.e. dusts and dirt).

1508. Respiratory Protection Training. While selecting a respirator for a given hazard is important, equally important is the proper use of the respirator. The servicing Site Safety Office shall ensure proper use by providing all customer activity personnel, their supervisors, persons issuing respirators, and emergency rescue teams with training per reference 15-4, and applicable OSHA standards for specific chemicals. Training shall be conducted initially and annually thereafter, unless OSHA standards specify otherwise. Training shall include, as a minimum, the following:

- a. The nature and degree of respiratory hazards.
- b. Respirator selection, based on specific hazards.
- c. Why the respirator is necessary and how improper fit, usage or maintenance can compromise the protective effect of the respirator.
- d. The limitation and capabilities of the respirator.
- e. How to use the respirator effectively in emergency situations, including situations in which the respirator malfunctions.
- f. How to inspect, put on and remove, use and check the seals of the respirator.
- g. The procedures for maintenance and storage of the respirator.
- h. How to recognize medical signs and symptoms that may limit or prevent the effective use of respirators.
- i. Wearing contact lenses in contaminated atmospheres with respiratory protection is permitted.
- j. The general requirements of the respiratory standard.

1509. RPPM and ARPPM Training Because of the large variation in quality of respiratory protection training available for RPPMs and ARPPMS and because of the complexity of respiratory protection, the Navy has defined minimum acceptable training for RPPMs and ARPPMs in reference 15-1.

1510. Responsibilities

a. Regional Respiratory Protection Program Manager (Headquarters):

(1) Develop training lesson plans and associated information.

(2) Evaluate annually, the regional respiratory protection program to ensure compliance with OPNAVINST 5100.23 (series), COMNAVREGINST 5100.11 (series), 29 CFR 1910.134 and 42 CFR 84.

(3) Establish and maintain current a COMNAVREGSW Respiratory Protection Guide.

(4) Ensure that the respiratory protection program provides a change schedule for chemical canisters/cartridges based on objective information or data that will ensure that canisters and cartridges are changed before the end of their service life.

b. Regional Safety Training Department (Headquarters). Distribute training materials to the Site Safety Offices.

c. Regional Metrics Department (Headquarters). Audit the effectiveness of the respiratory protection program at each Site.

d. Assistant Respiratory Protection Program Managers (Site Safety Office):

(1) Ensure that Respiratory Protection Program Assistants (RPPAs) are appointed in writing and qualified.

(2) Evaluate and document annually, the respiratory protection program at their Site to ensure compliance with OPNAVINST 5100.23 (series), COMNAVREGINST 5100.11 (series), 29 CFR 1910.134 and 42 CFR 84.

(3) Review and approve respiratory protection equipment purchase order requests including respirators issued for humanitarian / morale purposes (voluntary respiratory use).

(4) Conduct initial and annual refresher training and/or fit testing of all respirator users including respirators issued for humanitarian / morale purposes (voluntary respirator use).

(5) Conduct training for all designated RPPAs.

(6) Develop, in coordination with the RPPAs, Standard Operating Procedures (SOPs) governing the selection, care, issue and use of respirators.

(7) Coordinate with the servicing Industrial Hygiene Department to ensure they provide support to evaluate applicable work operations and processes requiring change schedules for chemical canisters/cartridges.

(8) Input all respirator data into the "OSHMAP" program, (i.e. medical exam date, training date, fit test date, respirator type, model, size and stressors exposed to requiring respirator usage).

(9) Provide a current Respirator User Roster to RPPAs, as required by the **"10 Section Notebook"**.

(10) Evaluate, with the assistance of the designated RPPA and the Industrial Hygienist, all operations that may cause or create respiratory hazards to determine the extent of hazards present and the need for respiratory protection.

e. Customer Activities / Program Managers / Department Managers:

(1) Appoint, in writing, a Respiratory Protection Program Assistant (RPPA) to act as the activity's workcenter program coordinator.

(2) Ensure compliance with the CNRSW Respiratory Protection Program.

(3) Fund and purchase approved respiratory protection equipment.

(4) Arrange for, and fund, quarterly monitoring of compressed breathing air supplies (when applicable).

f. Respiratory Protection Program Assistants (Workcenter Program Coordinators):

(1) Complete Regional RPPA course (one time course, no periodic refresher required).

(2) Establish, staff, and maintain respirator equipment issue points ensuring proper storage.

(3) Issue only respirators and equipment that are currently approved by the National Institute for Occupational Safety and Health (NIOSH) or NIOSH/Mine Safety and Health Administration (MSHA) including respirators issued for humanitarian / morale purposes (voluntary respirator use).

(4) Ensure the servicing Site Safety Office Assistant Respiratory Protection Program Manager (ARPPM) approves purchase requests prior to ordering. One-time review and approval for recurring items.

(5) Inspect, maintain and store all respiratory protection equipment in a clean and sanitary condition.

(6) Track and monitor compliance with the recommended change schedules for chemical canisters/cartridges ensuring that canisters and cartridges are changed before the end of their service life.

(7) Track and schedule periodic medical examinations.

(8) Complete and sign the Medical Evaluation Form.
(Forward completed copy to Site Safety Office.)

(9) Ensure that all employees required to wear a respirator have been trained and fit tested prior to wearing a respirator and annually thereafter.

(10) Perform and document annual refresher training and qualitative fit testing. (Forward completed copy of roster to Site Safety Office.)

NOTE: Training provided to RPPAs will **ONLY** qualify them to conduct annual refresher training and fit testing, **NOT initial** training and/or fit testing. However, it is **NOT REQUIRED** of them to conduct, but provides activities the option for efficiency (i.e.. Not having employees to leave the job site and travel to classroom), at the request of several activities. This includes training for personnel who are issued respirators for humanitarian/morale purposes (voluntary respirator use).

(11) Maintain training rosters and fit test cards for all qualified employees.

(12) Maintain workcenter respiratory protection program **"10 Section Notebook"** as instructed during RPPA training.

(13) Develop, in coordination with the Assistant Respiratory Protection Program Manager (Site Safety Office), worksite standard operating procedures (SOPs) and ensure that they are posted at the worksite.

(14) Where necessary, ensure that quarterly monitoring of grade D breathing air is performed.

(15) Evaluate all operations, with the assistance of the Assistant Respiratory Protection Program Manager and the Industrial Hygienist, that may cause or create respiratory hazards to determine the extent of hazards present and the need for respiratory protection.

g. Supervisory Personnel:

(1) Ensure that all respirator users under their jurisdiction are provided with and wear the proper type of respiratory protection.

(2) Ensure that all respirator users are scheduled for medical appointments and attend respirator training and fit test.

(3) Ensure that all personnel issued respiratory protection equipment for humanitarian / morale purposes (voluntary respirator use) receive initial and annual training, fit testing and medical evaluations.

(4) Attend an initial Regional Respiratory Protection for Users course and annually thereafter.

(5) Inspect worksites to ensure that respiratory equipment is being used in accordance with the requirements of COMNAVREGSWINST 5100.11 (series).

(6) Ensure compliance with the recommended change schedules for chemical canisters/cartridges ensuring that canisters and cartridges are changed before the end of their service life.

h. Employees:

(1) Attend an initial Regional Respiratory Protection for Users course and annually thereafter.

(2) Use only the respiratory protection equipment approved by the Assistant Respiratory Protection Program Manager (Site Safety Office ARPPM).

(3) Follow the recommended change schedules for chemical canisters/cartridges ensuring that canisters and cartridges are changed before the end of their service life.

(4) Inspect, use, and maintain respiratory protection equipment as instructed during training received.

(5) Inspect respiratory protection equipment before and after each use and return equipment to the RPPA when no longer required or when any malfunction is noted.

(6) Attend scheduled medical appointments, respirator training, and fit testing.

(7) Perform user seal checks every time the respirator is donned (when applicable).

i. Cognizant Servicing Medical Treatment Facility

(1) Ensure that the medical qualification requirements of the Respiratory Protection Program (RPP) are met per reference 15-1.

(2) Provide occupational health professional support to evaluate applicable work operations and processes to develop required change schedules for chemical canisters/cartridges based on objective information or data.

CHAPTER 15

REFERENCES

- 15-1 OPNAVINST 5100.23 (Series), Navy Occupational Safety and Health (NAVOSH) Program Manual Ashore
- 15-2 29 CFR 1910.134 (as amended)
- 15-3 Compressed Gas Association, Inc. Commodity Specification for Air, Pamphlet G-7.1-1989 (American National Standard Commodity Specification for Air, ANSI/ CGA G-7.1-1989)
- 15-4 American National Standards Institute (ANSI), American National Standard, Practices for Respiratory Protection, Z88.2-1992 (NOTAL)
- 15-5 NIOSH Respirator Decision Logic, NIOSH Publication 87-108, May 1987 (NOTAL)
- 15-6 Defense General Supply Center (DGSC) Paperless Order Placement System (POPS) Commercial Item Catalog (NOTAL)
- 15-7 29 CFR 1910.1025, Appendix D (as amended)
- 15-8 29 CFR 1910.1001, (as amended)
- 15-9 COMNAVREG SW Respiratory Protection Program Guide
- 15-10 COMNAVREG SW Procedures and Guidelines Governing the CNRSW Regional Respiratory Protection Program

APPENDIX 15A

MEDICAL EVALUATION FORM FOR RESPIRATOR USE

(Upon completion of Occupational Health Evaluation, forward a copy of form to the Site Safety Office)

_____ Employee	_____ SSN	_____ Date of Birth
_____ Supervisor	_____ Phone #	_____ Command

Circle the type or types of respirator(s) to be used:

Air-supplied (tight-fitting)	Air Purifying (powered)(hooded)
Air-supplied (hooded)	Air-Purifying (powered) (tight-fitting)
Open-circuit (SCBA)	Air-Purifying (non-powered): (Specify)
Closed-circuit (SCBA)	Filtering Facepiece or elastomeric
Combination Airline/SCBA	N, R, P 95, 99, 100
Other: _____	Type Chemical Cartridge _____

<u>Specific hazard(s):</u>	Fiberglass	Organotin	Welding
	Silica	Carbon Monoxide	Lead
Abrasive Dust	Chromate	Nuisance Dust	Otto Fuel
Ammonia	Formaldehyde	Metal Fumes	Pesticides
Asbestos	Hydrogensulfide(H ₂ S)	Organic Vapor	
Beryllium	Isocyanates	Other: _____	

Level of work effort (circle one):

Light	Moderate	Heavy	Strenuous
-------	----------	-------	-----------

Extent of usage: Length of time: _____ hours/day

1. On a daily basis
2. Occasionally (more than once a week)
3. Rarely (less than once a week) - or emergency use only

Special considerations: extreme temperature confined spaces

isolated duty oxygen deficient IDLH (immediate danger to life)

Respiratory Protection Program Assistant (RPPA)
or **Employee's Supervisor Signature**

Phone # _____

OCCUPATIONAL HEALTH EVALUATION
(Employee has been given a copy of this recommendation.)

1. No restrictions on the respirator circled above
2. Respirator use with some restrictions (Noted Below)
3. No respirator use is allowed
4. Alternate respirator recommended

Restriction(s): _____

Re-evaluation due: _____ (under 35) (35-45) (over 45)
5 yrs 2 yrs 1 yr

Health care professional's signature

Date

CHAPTER 16

OCCUPATIONAL SAFETY AND HEALTH STANDARDS

1601. Discussion. The Navy has adopted Occupational Safety and Health Administration (OSHA) standards for use throughout shore commands; however, the Navy has adopted provisions for alternates to the OSHA standards and apply exceptions for military unique equipment, systems and operations in accordance with references 16-1 and 16-2.

1602. NAVOSH Standards. Standards in use now and any developing of future standards are to be based on the following:

a. OSHA standards, including emergency temporary standards issued under the previous OSHA Act.

b. Alternate OSHA standards as authorized by Deputy Under Secretary of Defense (Environmental Security) (DUSD) (ES) and subject to Department of Labor (DOL) approval.

c. Supplementary OSH standards, covering conditions in nonmilitary unique workplaces for which no OSHA standard exists.

d. Other regulatory OSH standards, issued under statutory authority by Federal Agencies such as the Department of Transportation, Energy, Environmental Protection Agency, Consumer Product Safety Commission, Nuclear Regulatory Commission and the Food and Drug Administration.

e. Special DOD or Navy developed standards, rules and regulations that govern on-the-job safety and health applicable to military unique equipment,

f. Consensus and propriety standards not otherwise incorporated into the regulatory OSHA standards.

g. Published OSHA standards when there is no applicable OPNAV instruction or chapter in this manual.

h. When there is no OSHA or OPNAV standard then nationally recognized standard sources can be used. Examples may be the National Fire Protection Association (NFPA) or the American National Standards Institute (ANSI).

1603. Alternate Standard Approval. An Echelon 2 Command must make the determination that a NAVOSH standard should be modified for application to its operations. Alternate standard requests

and/or any standard developed because of nonexistent standards shall be sent to the Safety Office for review.

1604. Responsibilities

a. COMNAVREG SW shall:

(1) Ensure that criteria contained in NAVOSH standards are:

(a) Applied in acquisition of goods and services and during design and construction planning stages of new or upgraded facilities.

(b) Applied to all applicable publications, instructions, manuals, specifications, technical orders etc., and that existing documents are reviewed and updated to conform to NAVOSH standards as expeditiously as practicable.

(2) Make the final decision regarding any conflict of standards application such as 3-M vs. OSHA standards, use of Construction standards vs. General Industry, afloat standards vs. ashore and proper application of horizontal, vertical, proprietary and performance standards.

(3) Maintain current an OSHA and Navy standards library accessible to all employees.

(4) Review contracts to ensure applicable OSHA and Navy standards are addressed and applied in such a way to reduce liability to the Navy.

(5) Review all high risk Standard Operating Procedures (SOPs) to ensure application of OSHA and Navy standards are incorporated.

b. Supervisory Personnel shall:

(1) With the assistance of the Safety Office, develop checklists to assist with required workplace inspections.

(2) Develop Standard Operating Procedures reflecting current OSHA and Navy standards for all high risk operations.

c. Public Works Center shall ensure current OSHA and Navy standards are included in repair, maintenance and pre-construction planning.

CHAPTER 16

REFERENCES

- 16-1 DOD Instruction 6055.1 (Series), DOD Occupational Safety and Health Program
- 16-2 OPNAVINST 5100.8 (Series), Navy Safety and Occupational Safety and Health Program

CHAPTER 17

ASBESTOS CONTROL

1701. Discussion.

a. Asbestos is recognized as a major health hazard. Inhalation of asbestos fibers has been demonstrated to cause at least two distinct disease states: Asbestosis and Mesothelioma. Asbestosis is a progressively restrictive fibrosis of the lung and is recognized as a classic disabling or even fatal occupational disease. Mesothelioma is a malignant tumor of the lung membrane lining, the chest and abdominal cavity. When coupled with cigarette smoking the risk of contracting mesothelioma is increased dramatically.

b. The extended latency period of asbestos related diseases, lack of adequate past exposure data, effect of other carcinogens and the variability of human responses make absolute safe level determinations difficult. Latency periods of 20 - 40 years between the first asbestos exposure and the appearance of a malignancy have been observed.

c. In recognizing the serious health hazards posed by asbestos exposure, the Navy has adopted stringent occupational health and environmental protection standards for the control of asbestos.

1702. Permissible Exposure Limit (PEL) and Excursion Limit (EL).
The PEL for asbestos is 0.1 fibers per cubic centimeter (f/cc) of air, calculated as an eight-hour time weighted average (TWA) exposure. The EL is 1 f/cc averaged over the 30-minute sampling period.

1703. Control of Asbestos in the Workplace Environment.

a. COMNAVREG SW policy is to eliminate the use of asbestos containing material (ACM) where substitute materials are available and to protect personnel from exposure to asbestos fibers. Basic principles for controlling hazards in the occupational environment include substitution with less hazardous materials, engineering controls (such as ventilation), administrative controls and the use of personnel protective equipment.

b. ACM will not be used in the construction, overhaul, repair and maintenance of naval buildings, nor will such materials be used in any facility or operational application where suitable alternate materials have been designated.

c. In locations where asbestos materials are presently installed, removal operations will not normally be performed for the sole purpose of eliminating asbestos. The Operations and Maintenance (O&M) Program administered by the Regional Asbestos Program Manager (RAPM) will ensure these materials are managed in place. The RAPM office will be responsible for all O&M activities. This will ensure the materials are inspected, repaired and maintained to prevent a fiber release.

1704. Asbestos Management Program Ashore. The requirements for an Asbestos Management Program can be found in Chapter 17 of reference 17-1; and the RAPM will be responsible for overseeing all aspects of the Asbestos Management Program.

1705. Asbestos Related Work Practices

a. Only properly trained and designated personnel are permitted to conduct any operation involving asbestos.

b. PWC San Diego has established an in-house asbestos abatement capability, as well as offering a number of contractual vehicles in an effort to increase responsiveness to customer needs. General Procedures for asbestos related work are found in Appendix 17-A.

NOTE: Specific and tailored standard operating procedures (SOPs) shall be prepared for each asbestos abatement related project.

1706. Training. Navy employees who work with, or handle asbestos, or may be exposed to asbestos fibers in excess of the medical surveillance action level shall receive training prior to or at the time of initial assignment and annually thereafter. Training requirements include:

- a. Uses of asbestos that could result in an exposure.
- b. Engineering controls and work practices associated with an employee work assignment.
- c. Purpose, proper use, and limitations of protective equipment.
- d. Purpose and description of the medical surveillance program.
- e. Description of emergency and cleanup procedures.
- f. Overall review of this chapter and O&M Plan.

1707. Industrial Hygiene Surveillance. Industrial Hygiene Department will:

a. Establish an asbestos monitoring plan to determine airborne asbestos levels of all operations. Sampling of all areas where repetitious asbestos work is performed shall be at intervals of six months or less to verify that the work site/operation has remained in the same class/category per reference 17-1. Each non-repetitious asbestos removal operation will be sampled at least once to determine the maximum potential exposure. Record and retain exposure data in accordance with Chapter 8 of reference 17-1.

b. Workplace Monitors. All measurements and monitoring will be conducted under the technical direction of the Industrial Hygienist (IH). All findings must be reported by the IH and turned over to the COMNAVREG SW Safety Office, who will in turn provide them to the affected employees.

c. Written Notification. Any employee found to have been exposed at any time during the course of their Navy employment to airborne concentrations of asbestos fibers in excess of the PEL shall be notified in writing. The employee's command shall make this notification as soon as practical, but no later than five days after the finding. The individual shall also be notified of the corrective action(s) being taken. For all other air sampling results less than the PEL, the employee's command shall notify affected employees within fifteen working days after receipt of the monitoring results. Notification shall be in writing, individually, or by posting in an appropriate location, which is accessible to the affected employees.

1708. Medical Surveillance Program. Examining physicians shall have a copy of references 17-2 and 17-3. The guidelines for the Medical Surveillance Procedures Manual and Medical Matrix are identified in reference 17-4. Medical records shall be in accordance with references 17-5, 17-6, 17-7 and 17-8. Medical surveillance requirements are outlined in detail in Chapter 17 of reference 17-1.

1709. Work performed by Private Contractors. Work performed by private contractors will comply with this document as well as other local, state, and federal laws and those identified in references 17-2, 17-3 and 17-10.

1710. Environmental Protection. All federal, state and local emission standards will be in accordance with references 17-9, 17-10 and 17-11.

1711. Responsibilities

a. COMNAVREG SW Activities and Customer Activities shall:

(1) Ensure control measures and monitoring procedures prescribed in Chapter 17 of reference 17-1 are applied to processes using asbestos or asbestos-containing materials.

(2) Notify personnel exposed to asbestos per reference 17-1.

(3) Ensure that all employees who work with asbestos or may be exposed to asbestos fibers in excess of the PEL receive appropriate training prior to initial assignment and annually thereafter.

b. The Industrial Hygienist is responsible for making determination of suspect asbestos materials and monitoring of spaces that contain asbestos material.

c. The Medical Unit is responsible for conducting the Asbestos Medical Surveillance Program.

d. The Regional Asbestos Program Manager shall:

(1) Ensure that all construction, demolition, and rehabilitation projects are screened for possible asbestos material prior to work authorization.

(2) Ensure proper removal and disposal of asbestos materials.

(3) Develop an Asbestos Management Program that covers the elements listed in Chapter 17 of reference 17-1.

(4) Ensure that work performed by independent contractors that may result in release of asbestos conforms with references 17-2, 17-3, 17-9, 17-10 and 17-11.

e. The COMNAVREG SW Safety Office shall:

(1) Ensure that all suspect ACM reported or discovered during inspections are processed for identification.

(2) Ensure that Asbestos Hazard Awareness training is routinely scheduled and conducted.

(3) Ensure exposed employees receive appropriate notification, treatment, and training.

(4) Provide consultation on matters concerning occupational exposure to asbestos.

CHAPTER 17

REFERENCES

- 17-1 OPNAVINST 5100.23 (Series), Navy Occupational Safety and Health (NAVOSH) Program Manual
- 17-2 29 CFR 1910.1001
- 17-3 29 CFR 1926.1101
- 17-4 NEHC TM91-5, Medical Surveillance Manual and Medical Matrix
- 17-5 29 CFR 1910.20
- 17-6 NAVMEDCOMINST 6150.1
- 17-7 NAVMED Publication P-117, Manual of the Medical Department (NOTAL)
- 17-8 SECNAVINST 5212.5D Series
- 17-9 Clean Air Act (as amended) 42 U.S.C. Section 7401
- 17-10 40 CFR, Part 61, 1990 Subpart M
- 17-11 OPNAVINST 5090.1B Environmental and Natural Resources Program Manual

APPENDIX 17-A

GENERAL PROCEDURES FOR ASBESTOS RELATED WORK

1. Coordinate **all** Asbestos projects with the Regional Asbestos Program Manager (RAPM). Notify the RAPM at least five days in advance of all asbestos operations and provide the names of all employees involved with the operation.
2. Ensure that strict adherence to the asbestos Occupational Safety and Health (OSH) requirements established by 29 CFR 1910.1001, 29 CFR 1926.1101 and this instruction are followed by supervisors and employees whose work exposes them to asbestos.
3. Provide and maintain all facilities and equipment necessary to offer protection to all workers from asbestos hazards.
4. Ensure that the removal of installed asbestos is coordinated with the RAPM, and undertaken only by personnel fully trained and certified in asbestos removal procedures.
5. Ensure personnel engaged in asbestos work are provided with proper respiratory protective equipment, protective clothing, showers and change rooms when appropriate.
6. Restrict access to asbestos handling, fabrication, installation, repair, and removal areas.
7. Use engineering controls and procedures to eliminate and/or reduce personnel exposure to asbestos hazards. Administrative and engineering controls will be applied to comply with the PEL for asbestos. Compliance with PEL shall not be achieved by the use of respirators except:
 - a. Pending installation of these administrative and engineering controls;
 - b. Where these controls are technically not feasible, and during emergencies.
8. Personal protective equipment (PPE) will be worn according to guidance provided on the Standard Operating Procedure (SOP) for each type of abatement procedure. Additional guidance is provided as follows:
 - a. Only those respirators approved for protection against exposure to asbestos by the National Institute of Occupational Safety and Health (NIOSH) may be used when handling or removing asbestos.

b. The COMNAVREG SW Safety Office will approve the various types of respirators, overalls, vacuum systems, and other needed PPE to be used by personnel engaged in various asbestos operations.

c. Each worker will be responsible for maintaining his or her respirator and filters in a satisfactory condition. Each worker will wear the respirator in a proper manner during all asbestos operations. Employees must be clean-shaven to ensure a good facial mask seal is maintained.

d. All supervisors shall enforce the proper use of PPE during all phases of asbestos work.

e. First level supervisors shall arrange for an adequate supply of new HEPA filter cartridges before the start of each job.

f. The immediate supervisor shall specify use of proper methods and tools to keep airborne asbestos dust to a minimum.

9. Ensure that asbestos-free insulation material is procured according to military standards and that the vendor provides correct marking instructions.

10. Ensure that fibrous glass insulation material is appropriately identified as "asbestos-free" prior to issuance.

11. Ensure that periodic medical screening examinations are scheduled and completed for asbestos workers.

12. Segregate asbestos operations from other work in order to avoid the exposure of non-asbestos workers to airborne dust hazards. If work cannot be separated, all personnel within the posted regulated area must be trained and equipped with PPE in accordance with the requirements of this instruction. All other personnel shall be restricted from the regulated work area, which shall be conspicuously posted/roped off.

13. Maintain a sufficient supply of approved signs and labels. Warning signs shall be provided and displayed at each location (building, manhole, etc.) where airborne concentrations of asbestos fibers may exceed the PEL. Signs shall be posted at a distance from these a location so that personnel may read the signs and take necessary steps before entering the area marked by the signs.

14. Maintain a sufficient supply of 4 and 6 mil polyethylene drop cloths, approved polyethylene bags for waste, protective clothing, and approved respiratory equipment.

15. Notify the COMNAVREG SW Safety Office of needed support, for example, space or personnel monitoring, respirator fit tests.

Note: *These are general procedures only. Each asbestos abatement project must have a tailored SOP approved by the RAPM prior to start.*

CHAPTER 18

HEARING CONSERVATION AND NOISE ABATEMENT

1801. Discussion. The goal of the Navy Hearing Conservation Program is to prevent occupational noise-related hearing loss. The COMNAVREG SW Safety Office Hearing Conservation Program includes the following elements:

a. Work environments shall be surveyed to identify potentially hazardous noise levels and personnel at risk.

b. Environments containing, or equipment producing hazardous noise should, when technologically and economically feasible, be modified to reduce noise to acceptable levels. Where engineering controls are not feasible, administrative controls or the use of hearing protective devices shall be employed.

c. Periodic hearing testing shall be conducted to monitor the effectiveness of the Hearing Conservation Program. Early detection of temporary threshold shifts allows further protective action to be taken before permanent hearing loss occurs. Employees exhibiting a significant threshold shift shall be informed in writing within 21 days.

d. Education is vital to overall success of a hearing conservation program. An understanding of the permanent nature of noise-induced hearing loss, the Hearing Conservation Program and the individuals own responsibilities must be achieved. Employees shall be encouraged to separately obtain their own non-government hearing protective devices to use when they are exposed to hazardous noise levels during off-duty activities e.g., from lawnmowers, chainsaws, firearms, etc.

e. All personnel shall receive a baseline-hearing test prior to being assigned duty in a noise hazardous environment. Hearing tests shall be conducted annually or as needed thereafter for as long as the employee remains in a noise hazardous environment.

f. Military personnel shall receive a hearing test upon termination of Navy service. Civilian personnel who have been routinely exposed to hazardous noise or have previously demonstrated a significant threshold shift, shall receive a hearing test upon termination of employment. Additionally, all personnel dropped from the hearing testing program due to removal from hazardous noise duties will have a termination test to document auditory status at the time of reassignment.

1802. Noise Measurements. To effectively control noise, it is necessary that the noise levels are accurately measured according to standard procedures and the measurements are properly evaluated against accepted criteria. This will normally be done by the cognizant industrial hygienists in conjunction with assistance from the Safety Office.

1803. Exposure Assessment

a. Time-Weighted Average (TWA) noise exposure assessments shall be determined for all personnel routinely working in hazardous noise areas and performing hazardous noise operations. These assessments are complex tasks that shall be performed by an IH or other person that an IH or audiologist judges to be competent.

b. The exposure assessment will identify which work areas, processes, and equipment produce hazardous levels of noise, determine the type of hearing protection necessary, and identify personnel at risk so they can be included in the hearing conservation program.

1804. Labeling of Hazardous Noise Areas and Equipment.

Designated hazardous noise areas and equipment that produce sound levels greater than 84dB(A), or 140dB peak sound pressure level, shall be appropriately labeled in accordance with reference 18-1.

a. Posting an entire building, as a hazardous noise environment is not recommended, unless all areas within the building are designated hazardous noise areas.

b. Military combatant equipment is excluded from this requirement.

1805. Personal Hearing Protective Devices

a. All personnel shall wear hearing protective devices when they enter or work in an area where operations generate noise levels:

- (1) Greater than 84dB(A) sound level, or
- (2) 140dB-peak sound pressure level or greater.

b. A combination of insert type and circumaural (earmuff) type hearing protective devices (double protection) shall be worn in all areas where noise levels exceed 104dB(A) unless an occupational audiologist, industrial hygienist, or occupational

medicine physician has determined that single protection is adequate for the anticipated duration of exposure.

c. All personnel exposed to gunfire in a training situation, or to artillery or missile firing, under any circumstances, shall wear hearing protective devices.

d. Determination of hearing protective device or combination of devices suitable for use in each situation is the responsibility of cognizant industrial hygienists and COMNAVREG SW Safety Office professionals. Every effort shall be made to issue personal hearing protective devices suited to the task. Personal hearing protective devices shall reduce effective sound levels to less than 84dB(A) or 140dB peak. Appendix 18-A lists recommended hearing protective devices available through the navy Supply system. The Navy Environmental Health Center (NAVENVIRHLTHCEN) web site at <http://www-nehc.med.navy.mil/> identifies additional hearing protectors that have been tested by DOD activities and are approved for open purchase. Activities desiring to use hearing protective devices not specified in Appendix 18-A or cited by NAVENVIRHLTHCEN shall submit a sample of the device with a request for evaluation to the Chief, Bureau of Medicine and Surgery (BUMED).

e. In case hearing protective devices do not provide sufficient attenuation to reduce an employee's effective exposure level below 84dB(A), administrative controls of exposure time will be necessary.

1806. Training

a. All personnel included in the hearing conservation program, their supervisory personnel, and employee representatives shall be provided training in accordance with reference 18-1 prior to being assigned to a noise hazardous environment.

b. Personnel identified for inclusion in the hearing conservation program shall receive a thorough initial briefing from qualified Naval Medical Clinic personnel or Site Safety Office training specialists concerning requirements of the program and refresher training, as needed. Records of training shall be made a part of the individual's OSH training records per Chapter 6 of this instruction.

1807. Responsibilities

a. Supervisors shall:

(1) Ensure that all personnel (including visitors) exposed to noise hazards wear approved hearing protective devices. Appendix 18-A lists recommended hearing protective devices available through the Navy Supply System. The Navy Environmental Health Center (NAVENVIRHLTHCEN) web site at <http://www-nehc.med.navy.mil/> identifies additional hearing protectors that have been tested by DOD activities and are approved for open purchase.

(2) Ensure that all hearing protective devices are maintained in a clean and fully operational condition.

(3) Schedule, attend, and ensure personnel attend required annual hearing examinations and annual and refresher hearing conservation training prior to being assigned in a noise hazardous environment.

(4) Provide, semi-annually, an updated roster of personnel placed in the Hearing Conservation Program to the Safety Office

b. Personnel shall:

(1) Wear the required hearing protection when entering or working in noise hazard areas or engaged in noise hazard operations.

(2) Maintain hearing protective devices in a clean and fully operational condition.

(3) Report for required annual hearing examinations, when scheduled.

(4) Attend required hearing conservation training, when scheduled prior to being assigned to a noise hazardous environment.

c. Safety Office shall:

(1) Ensure that a survey is conducted of all work areas, processes, and occupations to determine those with hazardous noise environments requiring hearing protection. Create and maintain a listing of identified areas.

(2) Provide hearing conservation training and education for personnel.

(3) Semi-annually update the roster of personnel exposed to hazardous levels of noise in the Hearing Conservation Program.

CHAPTER 18

REFERENCES

- 18-1.1 OPNAVINST 5100.23 (Series), Navy Occupational Safety and Health (NAVOSH) program Manual Ashore

Appendix 18-A
Hearing Protective Devices

Manufacturer's Nomenclature/NSN	Type of Protector	Federal Nomenclature
Ear Defender V-51R 6515-00-442-4765 6515-00-467-0085 6515-00-467-0089 6515-00-442-4807 6515-00-442-4813	Insert Earplug (sized) 24's (sized) 24's (sized) 24's (sized) 24's (sized) 24's	Plug, Ear, Noise Protection (X-Small) (White) (Small) (Green) (Medium) (Int'l Orange) (Large) (Blue) (X-Large) (Red)
Comfit, Triple Flange Protection 6515-00-467-0092 6515-00-442-4818 6515-00-442-4821	Insert Earplug (sized) 24's (sized) 24's (sized) 24's	Plug, Ear, Noise (Large) (Blue) (Regular) (Orange) (Small) (Green)
Silaflex (Blister Pack) Protection 6515-00-133-5416	Non-Hardening Silicone	Plug, Ear, Noise Cylindrical, Disposable 200's
EAR or Deci-Damp 6515-00-137-6345	Foam Plastic Insert	Plug, Ear, Noise Protection Universal Size, Yellow 200 pr
Straightaway Muffs 4240-00-759-3290 4240-00-674-5379 4240-00-979-4040	High Performance Circumaural Muffs For 9 AN/2 For 9 AN/2	Aural Protector Sound 372-9 AN/w Replacement Filter, Dome Replacement Seal, Dome
Ear Plug Cases 6515-01-212-9452 6515-01-100-1674	Non-reflective	Case, Earplug 12's Case, Earplug 20's
Sound-Ban 6515-00-392-0726	Headband, Earcaps	Plug, Ear, Hearing Protection, Universal Size
Circumaural Muff 4240-99-691-5617	Type I Overhead Headband	Aural Protector, Sound
Circumaural Muff 4240-00-022-2946	Type II Napeband (for use with hard hat)	Aural Protector, Sound

CHAPTER 19

SIGHT CONSERVATION

1901. Discussion. This section establishes the requirements and responsibilities for the sight conservation program with the basic objective of preventing eye injuries caused by eye-hazard operations. The Safety Office Sight Conservation Program includes the following elements in accordance with reference 19-1:

- a. Identification and evaluation of eye hazardous areas, processes and occupations.
- b. Prescription Protection Eyewear Program.
- c. Provision and maintenance of appropriate personal protective equipment (PPE) at government expense.
- d. An employee training, promotion and emphasis program.
- e. Effective program enforcement.

1902. Scope. This section shall apply to all civilian and military personnel and visitors in the vicinity of eye-hazard operations.

1903. Program Requirements

a. Eye Hazardous Operations. Personnel performing the following eye-hazard operations and personnel within the vicinity of these eye-hazard areas or operations shall wear the appropriate approved eye protection equipment:

- (1) Welding, brazing or soldering.
- (2) Use of lathes, air hammers, drill presses, power saws, sanders and operation of any other equipment or tool that cuts, grinds or forms wood, metal, plastic or concrete.
- (3) Fastening operations such as nailing, riveting and heavy duty stapling.
- (4) Use of compressed air for cleaning when reduced to less than 30 PSI, and with effective chip guarding and personal protective equipment (Not a recommended cleaning method).

- (5) Handling containers or working with corrosive liquids, cleaning solvents or powdered materials.
- (6) Installing or removing steel banding (strapping).
- (7) Weight testing of slings, cranes or similar equipment.
- (8) Paint removal operations using chemical or mechanical methods.
- (9) Using wire cutters or bolt cutters.
- (10) Working on or near batteries.
- (11) Any other known eye-hazard operation not mentioned above.

b. Posting of Eye-Hazard Areas. All areas designated as eye hazardous shall be posted with the appropriate warning sign. Eye-hazard warning signs shall be located at all entrances to the designated area, if practical.

c. Emergency Eyewash Equipment. Emergency eyewash units meeting the requirements of ANSI-Z358.1-1990 shall be provided in all areas where the eyes of any employee may be exposed to corrosive materials.

(1) All emergency eyewash locations shall be identified with a highly visible sign.

(2) Each emergency eyewash unit shall be easily accessible to personnel.

(3) Plumbed eyewash units shall be activated weekly, for a minimum of 3 minutes, to flush the line and to verify proper operation.

(4) A record, log or tag shall be used to document weekly inspections of eyewash units.

(5) Pressurized and non-pressurized self-contained eye wash units shall be serviced quarterly or per the manufacture's recommendations, whichever is less. Quarterly maintenance shall include cleaning of the unit, replacement of water, and checking for proper operation. A quarterly record should be maintained to document inspections.

(6) Activities shall only use self-contained eyewash units on a temporary basis until permanent emergency eyewash facilities are installed or at remote locations where water is not readily available. Activities shall not use personal eyewash units.

d. Visitors. Suitable eye protection devices shall be available at entry to shop locations for visitors. Personnel escorting visitors through eye hazard areas shall be responsible for ensuring that the visitors wear the approved eye protection equipment. These common use devices shall be kept clean and sanitary.

e. First Aid Measures. Chemical burns of the eye require immediate flushing of the eye for at least 15 minutes with potable water. Attempts should not be made to remove a particle lodged in the eye, or to wash any eye that has been cut in any way. A clean dressing can be placed lightly over the eye until the victim receives medical help. Cold compresses should be applied to a bruised eye.

f. Maintenance of Protective Eyewear. Personal protective eyewear shall be maintained in a clean and fully operational condition. The eyewear furnished under the sight conservation program is the property of the Department of the Navy and shall be repaired or replaced if damaged in the course of employment. Damage to the protective eyewear shall be reported to the employee's supervisor.

g. Temporary Protective Eyewear. Planos, goggles or faceshields shall be provided to employees while awaiting delivery of corrective-protective eyewear.

h. Corrective Protective Eyewear. The servicing medical treatment facility and the employee's supervisor must approve procurement of prescription safety eyewear. All corrective protective eyewear must meet the requirements of reference 19-2.

1904. Responsibilities

a. Supervisors shall:

(1) Ensure that all personnel (including visitors) exposed to eye hazards wear an approved eye protection device.

(2) Ensure that all protective eyewear is maintained in a clean and fully operational condition.

(3) Ensure personnel are properly trained, know the location of the nearest eyewash unit and are instructed in the proper operation of that eyewash unit.

(4) Notify the Safety Office of any new eye hazard operations.

(5) Schedule and ensure personnel attend initial sight conservation training. Maintain records as required by Chapter 6 of this instruction.

(6) Fund, review and sign requests for corrective-protective eyewear and consult with supply and the servicing medical treatment facility to determine the most suitable procurement procedures when prescription eyewear is required. When Navy medicine provides these services, all medical forms and evaluations must be documented according to the Bureau of Medicine and Surgery Manual of Medical Department, NAVMED P117.

(7) Ensure appropriate disciplinary action is taken if eyewear has been willfully damaged, altered or lost through negligence, or if personnel are not responding to the provisions of the program.

b. Personnel shall:

(1) Wear the required protective eyewear when entering or working in eye-hazard areas or engaged in eye-hazard operations.

(2) Know the location of the nearest eyewash unit and how to operate the unit.

(3) Maintain personal protective eyewear in a clean and fully operational condition.

c. Safety Office shall:

(1) Conduct a survey of all work areas, processes, and occupations to determine those with eye hazards requiring eye protection. Maintain a listing of these areas.

(2) Recommend the type of protective equipment required and the personnel affected.

(3) Determine signs and warning posters needed.

(4) Re-evaluate previously designated eye hazard areas after new processes are adopted, or after modifications have been made to existing processes. Annual workplace inspections and re-

evaluations shall determine the continuing need for eye protection.

(5) Retain and review eye injury records as an additional check on the identification of areas, processes and occupations where potential eye hazards may exist.

(6) Provide sight conservation training and education for personnel.

REFERENCES

CHAPTER 19

- 19-1.1 OPNAVINST 5100.23 (Series), Navy Occupational Safety and Health (NAVOSH) Program Manual
- 19-1.2 American National Standards Institute (ANSI) Z87.1, American National Standard for Eye and Face Protection, Latest revision, (NOTAL)

CHAPTER 20

PERSONAL PROTECTIVE EQUIPMENT

2001. Discussion. Despite efforts to eliminate workplace hazards through engineering and administrative controls, certain operations retain hazardous conditions. Under these conditions it is necessary for individuals to take additional safeguards and precautions for their protection. Personal Protective Equipment (PPE) may be used for this purpose. Since engineering and administrative controls are preferred, PPE is considered to be a "last line of defense" and personnel must be aware of the limitations of the PPE to avoid a false sense of security. Personal Protective Equipment (PPE) shall be provided to all activity military and civilian personnel when competent authority determines that its use is necessary for those who have a need for such equipment. PPE shall be provided at no cost to the individual. **It is the responsibility of the customer activity to fund and purchase required PPE for their employees.** Appropriate wearing, use and care shall be the responsibility of the employee.

2002. Responsibilities

a. The Safety Office shall evaluate workplaces, including applicable Industrial Hygiene Survey's and hazardous material data sheets, to determine PPE requirements. The Safety Office, in accordance with reference 20-1 will document workplace hazard assessments and forward assessments to the cognizant activities.

b. Supervisors shall:

- (1) Purchase required PPE and enforce its proper use.
- (2) Attend training as required.
- (3) Schedule and conduct training on PPE, as required.

c. Personnel shall:

(1) Use, maintain, and store the PPE provided, in accordance with instructions and training received.

(2) Report any damage or malfunction of safety equipment to the workplace supervisor.

2003. Equipment Specifications and Requirements. All personal protective clothing and equipment shall be of safe design and construction for the work to be performed. Only those items that

have been recognized and approved shall be used. This approval can be met through the use of:

- a. Federal specifications.
- b. American National Standards Institute (ANSI) specifications.
- c. Recognized approval authority, such as Underwriter's Laboratories (UL), Factory Mutual (FM), or American Society of Testing and Materials (ASTM).

2004. Eye and Face Protection. Approved eye and face protection shall be worn when there is a reasonable probability that wearing such equipment can prevent an injury. Eye protection shall be worn at all times in a designated eye hazard area. Additional guidance is provided under the Sight Conservation Program, Chapter 19 of this instruction.

2005. Head Protection

a. Activity personnel (military and civilian) shall wear head protection (hard hats or helmets) when performing operations in which there is danger of injury to the head from impact by falling, flying objects and from electric shock and burns. Activity personnel and visitors in the vicinity of head-hazard areas shall be provided and wear the proper head protection equipment.

b. Head Protection Devices. All helmets and hard hats used for head protection shall meet the requirements of reference 20-2. Modifications shall not be made to head protection devices. Helmets and hard hats shall be maintained and inspected prior to usage. Defective head protection equipment shall not be used, and immediately replaced.

2006. Hand Protection

a. Whenever employees hands are exposed to, or are likely to be exposed to such hazards as those from skin absorption of harmful substances, severe cuts or lacerations, severe abrasions, punctures, chemical burns, burns and harmful temperature extremes, appropriate hand protection shall be selected, provided, and used.

b. Selection shall be based on an evaluation of the performance characteristics of the hand protection relative to the task(s) to be performed, conditions presented, duration of use, and the hazards and potential hazards identified.

2007. Electrical Protective Devices

a. Appropriate rubber protective equipment shall be provided for electrical workers who perform work on energized or potentially energized electrical systems. This equipment shall conform to the requirements specified below:

(1) American Society for Testing and Materials (ASTM) D 120-87, Specifications for Rubber Insulating Gloves. (NOTAL).

(2) ASTM D 178-88, Specification for Rubber Insulating Matting. (NOTAL).

(3) ASTM D 1048-88, Specification for Rubber Insulating Blankets. (NOTAL).

(4) ASTM D 1049-88, Specifications for Rubber Insulating Covers (NOTAL).

(5) ASTM D 1050-90, Specification for Rubber Insulating Line Hose (NOTAL).

(6) ASTM D 1051-87, Specification for Rubber Insulating Sleeves. (NOTAL)

b. Rubber insulating gloves, sleeves, and blankets used ashore shall be electrically tested per ASTM F496-91, Specification for In-Service Care of Insulating Gloves and Sleeves (NOTAL); ASTM F479-88a, Specification for In-Service Care of Insulating Blankets (NOTAL); and 29 CFR 1910.268, Telecommunications.

2008. Respiratory Protection. Respiratory hazards may occur through exposure to harmful dust, fog, fumes, mist, gas, smoke, spray, and vapor. Only when engineering controls are not practical or applicable shall personal respiratory protective equipment be employed to reduce personnel exposures. However, in no case shall respiratory protection equipment be used as a substitute for engineering controls. Additional guidance is provided under the Respiratory Protection Program, Chapter 15 of this instruction.

2009. Hearing Protection. Environments that contain equipment and processes that produce potentially hazardous noise shall, whenever it is technologically and economically feasible, be modified to reduce the noise level to acceptable levels. The use of personal hearing protective devices to limit noise exposure is considered to be an interim protective measure while engineering control methods are being implemented. Additional guidance is

provided under the Hearing Conservation and Noise Abatement Program, Chapter 18 of this instruction.

2010. Foot Protection

a. Activity employees (military and civilian) exposed to designated occupational foot-hazard operations and areas shall wear appropriate safety shoes or boots.

b. Foot-Hazard Operations. Operations or areas, which have a high incidence or potential for foot or toe injuries, are considered foot-hazard operations and areas. The following are some of the operations and areas recognized as requiring protective footwear:

- (1) Warehouse workers.
- (2) Maintenance operations.
- (3) Material handling.
- (4) Fuel Management personnel.

c. Foot Protection Devices. The various types of foot protection devices that are required for foot-hazard operations and areas are described in Chapter 20 of reference 20-1.

2011. Training

a. Customer activities shall provide training to each employee required to use PPE. Training shall include at least the following:

- (1) When PPE is necessary and what PPE is necessary.
- (2) How to properly don, doff, adjust, and wear PPE.
- (3) The limitations of the PPE.
- (4) The proper care, maintenance, useful life and disposal of the PPE.
- (5) Ability to recognize that defective or damaged PPE shall not be used.

b. Customer activities shall verify that each affected employee has received and can demonstrate an understanding of the required training through written certification using, appendices 6-A and 6-B under Training Chapter 6 of this instruction.

REFERENCES

CHAPTER 20

- 20-1 OPNAVINST 5100.23 (Series), Navy Occupational Safety and Health (NAVOSH) Program Manual
- 20-2 American National Standards Institute (ANSI) Z89.1, American National Standard for head Protection, Latest revision, (NOTAL)

CHAPTER 21

LEAD CONTROL

2101. Discussion

a. The goal of this chapter is to prevent lead intoxication and related injuries during the use, handling, and removal of metals containing lead at COMNAVREG SW activities, in accordance with reference 21-1. This chapter primarily applies to non-construction activities in accordance with reference 21-2. For work which may fall under the OSHA construction standards such as construction, demolition, renovation or repair of structures the requirements of reference 21-3 apply.

b. Significant lead exposures can occur during any of the following processes: lead and ballast melting and casting; ballast handling; spraying, sanding, grinding, burning and abrasive blasting of lead containing materials and paint; soldering with torches; high voltage cable repair; abrasive blasting with smelting slag; lead-acid battery reclaiming; machining lead; gasoline engine components (which have used leaded gasoline); contaminated personal clothing, etc.

c. Lead has long been a recognized health hazard. Lead can damage the nervous system, blood forming organs, kidneys and reproductive organs, with higher levels of exposure causing peripheral nerve and central nervous system damage. Lead interferes with the formation of the hemoglobin in blood and will cause anemia. Lead causes cellulite kidney damage, which reduces urine output and leads to water retention and kidney failure. Reduced sperm counts and decreased fertility have been found in workers chronically exposed to lead.

d. Significant additional cost and customer impact is often required when working with or abating lead-containing materials. It would be cost prohibitive to require workers to treat all unconfirmed materials as requiring lead safety procedures. Through proper planning and job screening procedures, the presence of lead can be confirmed or ruled out. If lead is confirmed, proportional safety procedures can be incorporated into the work to protect occupant and workers. Similarly, by ruling out the presence of lead through proper screening and testing, work can proceed with no potential for unforeseen delays or added cost caused by the presence of lead. Appendix 21-A provides a checklist to help determine if lead is present.

2102. Permissible Exposure Limit (PEL) and Action Level (AL) Triggering Requirements

a. The PEL for an 8-hour time weighted average (TWA) to airborne lead is 50 micrograms per cubic meter of air. The AL for an 8-hour TWA to airborne lead is 30 micrograms per cubic meter of air (without regard to respirator use). For specific AL requirements please refer to reference 21-1.

b. For residential sampling, .5% by weight by lab analysis or 1 milligram per square centimeter using portable x-ray fluorescence (XRF) is the action level for lead abatement. These standards are adopted from the established Department of Housing and Urban Development (HUD) guidelines.

c. For industrial sampling, if any lead is detected on a surface, worker protection requirements shall be implemented until it can be proven that the PEL shall not be reached. This conservative approach is needed since there are wide variations in lead removal processes.

2103. Control of lead in the Workplace Environment

a. In recognition of the serious health hazards associated with, and the numerous sources of, potential lead exposure, reference 21-1 has established strict controls to limit both occupational and environmental exposures. Standards and controls discussed in this chapter shall be applicable to all COMNAVREG SW customer activities.

b. In locations where lead-containing materials are presently installed, removal operations will not normally be performed for the sole purpose of eliminating lead. The exception to this would be in residential projects where a lead-containing surface is "mouthable". An Operations and Maintenance (O&M) Program will be implemented for these materials left in place. This will ensure the materials are inspected, repaired and maintained to minimize lead dust and/or paint chips to occur. Local exhaust ventilation and dust collection systems shall be designed, constructed, installed and maintained in accordance with references 21-4 through 21-7

c. Customer activities shall not use paints containing more than 0.6% lead by dry weight unless the cognizant headquarters command specifically approves higher lead content paint.

2104. Environmental Protection and Waste Disposal. All federal, state and local emission standards shall be complied with when

conducting lead-related work. For specific lead waste disposal requirements, please refer to references 21-1, 21-8, and 21-9.

2105. Training. All Navy personnel who work in areas where the potential exists for lead exposure at or above the action level, or for whom the possibility of skin or eye irritation exists shall receive initial training prior to or at time of assignment and at least annually thereafter. The training, per reference 21-1, shall include, as a minimum, the following:

a. The specific nature of the operations during which exposure is possible.

b. The purpose, proper selection, fit testing, use, and limitations of respirators.

c. The adverse health effects of lead with particular attention to the reproductive effects upon both males and females.

d. The purpose and description of the medical surveillance program, including the use of chelating agents and medical removal protection benefits.

e. The engineering controls and work practices to be applied and used in the employee's job, including PPE and personal hygiene measures.

f. The contents of the command's compliance plan.

Note: All employees in a workplace in which there is a potential for exposure to airborne lead at any level shall be informed of the contents of Appendices A and B of reference 21-1, and to any related documents, all of which are available at no charge from the Department of Labor (DOL). In addition, employees shall receive, upon request, any handout type materials in use or related to the training program.

2106. Industrial Hygiene Surveillance and Workplace Monitoring. Industrial Hygiene Department shall:

a. Establish a lead-monitoring plan to determine airborne lead levels of all operations per reference 21-1.

b. Train Work Place Monitors. All measurements and monitoring will be conducted under the technical direction of the Industrial Hygienist (IH). All findings must be reported to the

Safety Office, who will in turn provide them to the affected employees.

2107. Employee Notification. Any employee found to have been exposed at any time during the course of their Navy employment to airborne concentrations of lead in excess of the PEL shall be notified in writing of the exposure as soon as practical, but not later than five days after receipt of the monitoring results. The individual shall also be notified of the corrective action(s) being taken by the activity. Notification by the activity shall be in writing, individually, or by posting in an appropriate location accessible to the affected employees.

2108. Medical Surveillance Program. Medical Surveillance requirements are outlined and addressed in references 21-1, 21-10 and 21-11.

2109. Work performed by Private Contractors. Work performed by private contractors will comply with all applicable local, state, and federal laws.

2110. Lead in Construction Industry. References 21-3 and 21-12 were adopted by OSHA to regulate lead exposures in the construction industry. PWC San Diego has established an in-house lead abatement capability, as well as offering a number of contractual vehicles in an effort to increase responsiveness to customer needs. The General Standard Operating Procedures (SOP) to deal with all lead activities are found in Appendix 21-B.

NOTE: A specific and tailored SOP shall be prepared for *each* lead abatement related project.

2111. Responsibilities. The provisions of this instruction are considered the minimum OSH requirements when dealing with lead. All concerned personnel shall adhere to the requirements, controls and procedures established or referenced in this instruction.

CHAPTER 21

REFERENCES

- 21-1 OPNAVINST 5100.23 (Series), Navy Occupational Safety and Health (NAVOSH) Program Manual
- 21-2 29 CFR 1910.1025, Lead (As Amended)
- 21-3 29 CFR 1926.62, Lead
- 21-4 29 CFR 1910.94, Ventilation
- 21-5 Industrial Ventilation-A Manual of Recommended Practices, Committee on Industrial Ventilation, American Conference of Government Industrial Hygienist, Inc. (NOTAL)
- 21-6 American National Standard Institute (ANSI), publication, Fundamentals Governing the Design and Operation of Local Exhaust Systems, ANSI Z9.2-1979 (NOTAL)
- 21-7 MIL-HDBK-1003/17C, of 29 Feb 96, Industrial Ventilation Systems (NOTAL)
- 21-8 40 CFR 262, Standards Applicable to Generators of Hazardous Wastes (NOTAL)
- 21-9 40 CFR 241 Guidelines for the Land Disposal of Solid Wastes (NOTAL)
- 21-10 MEDCOMINST 6260.3 (Series), Occupational Health Medical Surveillance, with DODINST 6055.5-5M of Jul. 82, Occupational Health Surveillance Manual enclosed (NOTAL)
- 21-11 Medical Surveillance Procedures Manual and Medical Matrix (4th Edition) NEHC TM 91-5 (NOTAL)
- 21-12 Lead Exposure in Construction Interim Final Rule, Federal Register, Vol. 58 No. 84 of 4 May 1993.

APPENDIX 21-A

LEAD PAINT CHECKLIST

The following items shall be explored during the development of the project to help determine the presence of LEAD PAINT prior to starting work:

- 1. Building #: _____
- 2. Location: _____
- 3. Year Built: _____
- 4. Does work involve materials that could contain Lead Paint?
LEAD PAINT: YES_____ NO_____

NOTE: *If you are cutting a surface or the material that will be removed has suspected lead paint which is chipping or peeling, check YES.*

- 5. Does the age (built prior to 1970) of the facility or system indicate lead paint may be present?
LEAD PAINT: YES_____ NO_____

NOTE: *If you checked NO for both questions, sign, date and place form in folder. If you checked YES for either question, complete the form.*

- 6. Has a prior lead survey been conducted for this facility?
LEAD PAINT: YES _____ NO_____ DON'T KNOW_____

NOTE: *If you suspect lead may be present (Question 4 or 5 Checked YES) and need a sample/s taken, contact the Safety Office.*

Completed by: _____ Date:_____

Title: _____

APPENDIX 21-B

GENERAL PROCEDURES FOR LEAD RELATED WORK

1. Coordinate **all** Lead projects with the Lead Program Manager (LPM); Notify the LPM, 05 days in advance of all lead abatement operations and provide the names of all employees involved with the operation;
2. Ensure that strict adherence to the lead Occupational Safety and Health (OSH) requirements established by 29 CFR 1926.62 and this instruction are followed by supervisors and employees whose work exposes them to lead;
3. Provide and maintain all facilities and equipment necessary to offer protection to all workers from lead hazards;
4. Ensure Lead abatement is coordinated with the LPM, and undertaken only by personnel fully trained and certified in lead removal procedures;
5. Ensure personnel engaged in lead work are provided with proper respiratory protective equipment, protective clothing, showers and change rooms when appropriate;
6. Restrict access to lead handling, fabrication, installation, repair, and removal areas;
7. Use engineering controls and procedures to eliminate/reduce personnel exposure to lead hazards;
 - a. Administrative and engineering controls will be applied to comply with the PEL for lead. Compliance with PEL shall not be achieved by the use of respirators except:
 - b. Pending installation of these administrative and engineering controls;
 - c. Where these controls are technically not feasible; and during emergencies.
8. Personal Protective Equipment (PPE) will be worn in accordance with guidance provided in the Standard Operating Procedure (SOP) for each type of abatement procedure. Additional guidance is provided as follows:
 - a. Only those respirators approved for protection against exposure to lead by the National Institute of Occupational Safety and Health (NIOSH) may be used when handling or removing lead.

b. The Safety Office will approve the various types of respirators, overalls, vacuum systems, and other needed PPE to be used by personnel engaged in various lead operations.

c. Each worker will be responsible for maintaining their respirator and filters in a satisfactory condition. Each worker will wear the respirator in a proper manner during all lead operations. Employees must be clean-shaven to ensure a good facial mask seal is maintained.

d. All supervisors shall enforce the proper use of PPE during all phases of lead abatement work.

e. First level supervisors shall arrange for an adequate supply of new HEPA filter cartridges before the start of each job.

f. Use of proper methods and tools shall be specified by the immediate supervisor to keep airborne lead dust to a minimum.

9. Ensure that lead-free products are procured according to military standards and that the vendor provides correct marking instructions.

10. Ensure that periodic medical screening examinations are scheduled and completed for lead abatement workers.

11. Lead operations shall be segregated from other work in order to avoid the exposure of non-lead abatement workers to airborne dust hazards. If work cannot be separated, all personnel within the posted regulated area must be trained and equipped with personal protective equipment in accordance with the requirements of this instruction. All other personnel shall be restricted from the regulated work area, which shall be conspicuously posted/roped off.

12. Maintain a sufficient supply of approved signs and labels. Warning signs shall be provided and displayed at each location (building, manhole, etc.) Signs shall be posted at a distance from these a location so that personnel may read the signs and take necessary steps before entering the area marked by the signs.

13. Maintain a sufficient supply of 4 and 6 mil polyethylene drop cloths, approved polyethylene bags for waste, protective clothing, and approved respiratory equipment;

14. Notify the Safety Office of needed support: e.g., space or personnel monitoring, respirator fit tests.

Note: *These are general procedures only, each lead abatement project must have a tailored SOP approved by the Lead Program Manager (LPM) prior to start.*

CHAPTER 22

NON-IONIZING RADIATION

2201. Discussion. The term non-ionizing radiation refers to forms of radiation which do not have sufficient energy to cause ionization of atoms and molecules. Examples include the electromagnetic emissions radiated by lasers, radiofrequency (RF) and microwave sources.

2202. Policy. It is the policy of COMNAVREG SW to preserve and maintain the health of its personnel by adopting practices that eliminate or control potentially hazardous radiation exposures.

2203. Applicability. This chapter sets forth COMNAVREG SW guidance for protection and training requirements, exposure standards, medical surveillance and investigation and documentation of overexposure incidents related to non-ionizing radiation. This chapter incorporates the requirements and guidance contained in reference 22-1 regarding non-ionizing radiation. This chapter also excludes individuals who must undergo diagnostic or other medical therapeutic procedures.

2204. Laser Radiation. Lasers are designed to operate at various wavelengths in the ultraviolet, visible and infrared portions of the electromagnetic spectrum. Lasers are employed in many military and industrial applications including communications, training aids, scoring systems, weapons systems, welding, cutting and various other operations or procedures.

2205. Laser Permissible Exposure Limits (PELs). Laser PELs, also referred to as Threshold Limit Values (TLVs) and Maximum Permissible Exposure (MPE) limits, are published in references 22-2 and 22-3. Only trained and technically qualified personnel shall apply these exposure limits in determining laser safe viewing conditions.

2206. Laser Classification, Labeling, Technical Assistance and Exposure Incidents. The Navy has adopted a system for categorizing the hazards of lasers, which provides a practical means for determining safety requirements appropriate for different types of lasers. These categories range from a Class I laser that is safe to view under all conditions, to the Class IV laser which can cause eye damage under most viewing conditions. Consult Appendix 22-A of reference 22-1 that provides information on laser classification, types of laser warning signs and labels, technical assistance and exposure incidents. All laser systems must be classified and labeled by the manufacturer per reference 22-4.

2207. Military Exempt Lasers. Lasers or laser systems designated for combat, combat training or classified in the interest of national security may be exempted from compliance with some or all of the provisions of reference 22-4. Reference 22-1 contains information regarding obtaining military exemption status for such lasers or laser systems.

2208. Laser Safety Hazard Control Program.

a. Commands operating Class III or Class IV commercial or military exempt lasers shall establish a laser safety program and designate in writing a Laser System Safety Officer (LSSO) per reference 22-5. The laser safety program shall include an inventory of all commercial - Class IIIb, Class IV and all classes of Military-Exempt Lasers that are assigned to the command.

b. CNRSW Site Safety Offices shall provide oversight and guidance of activities' Laser Safety Hazard Control Programs for which safety services are provided.

c. Some commercially available laser pointers are categorized as Class IIIa lasers with output levels that are not considered safe for all viewing conditions. A formal laser safety program is not required for Class IIIa laser pointers; however the user needs to recognize that care must be exercised to control its accessibility (kept out of the hands of children or others who are unaware of the hazardous nature of lasers), and to avoid directing the pointer at those in the audience. Class II laser pointers do not pose a hazard during normal viewing, and their use is not restricted.

2209. Medical Surveillance Procedures.

a. Laser workers who require medical surveillance are those individuals who routinely work with Class IIIb or Class IV lasers where there is a likely potential for accidental exposures to excessive levels. These workers require a preplacement and termination laser eye examination per reference 22-6.

b. Personnel who perform operations with Class I or II laser systems are not required to be enrolled in the medical surveillance program.

c. Further medical surveillance guidance is contained in reference 22-1.

2210. Laser Safety Training. Laser safety training requirements for LSSO's, laser range safety officers, laser maintenance personnel, industrial laser supervisors, and personnel in areas operating Class IIIb (and Class IIIa with danger logo) or Class IV lasers are discussed in reference 22-1.

2211. Radio Frequency Radiation (RFR). RF exposure is primarily associated with operation of various radars and communication systems at Navy shore facilities and aboard ships. In addition to personnel concerns, RF fields may generate inducted currents or voltages that could cause premature activation of electro-explosive devices in ordnance, equipment interference or sparks and arcs that may ignite flammable materials and fuels. Space and Naval Warfare Systems Command (COMSPAWARSYSCOM) is the lead agency for coordinating electromagnetic safety programs for shore activities. CNRSW Site Safety Offices shall provide oversight and guidance of activities' electromagnetic safety programs for which safety services are provided.

2212. RF Permissible Exposure Limits (PELs). Exposure limits are specified for locations that are defined as either controlled or uncontrolled environments. Controlled environments are areas where exposure may be incurred by personnel who are aware of the potential for RF exposure. Uncontrolled environments generally include public areas, living quarters and work places where there is no expectation that higher RF levels should be encountered. Reference 22-1 lists references which contain more extensive technical guidance for those persons conducting RF hazard analysis and evaluations.

2213. RF Measurement and Evaluation. Activities shall determine RF levels for all areas in which personnel could receive exposures in excess of the exposure limits. Additionally, activities must determine RF field levels where locations of RF emitting antennas may raise concerns or might generate inquiries among personnel or the public about RF emissions beyond the base perimeter. Activities should consult appendix 22-C of reference 22-1 for information on obtaining assistance in measuring FR emission levels.

2214. Safety Certification. All shore activities having RF emitters must obtain a baseline certification from the technical activities listed in appendix 22-C of reference 22-1. The purpose of this survey certification requirement is to ensure all FR sources have been evaluated, safe separation distances have been determined, warning signs have been posted and any other safety measures, such as protective fences, have been defined. The certifying agency will determine resurvey/recertification requirements of the activity.

2215. Warning Signs, Labels and Devices. Activities shall post RF hazard warning signs at all access points to areas in which levels exceed the exposure limits for controlled environments. Activities should post RF hazard warning signs in appropriate areas in which the RF levels exceed the exposure limits for uncontrolled as determined by cognizant engineering or safety or health professionals. Reference 22-1 contains additional information for appropriate warning sign variations and posting of areas where access to levels greater than 10 times the exposure limits for controlled environments may exist.

2216. RF Safety Training. Activities shall provide RF safety training to personnel who routinely work directly with RF equipment or whose work environments contain RF equipment that routinely emits RF levels in excess of the exposure limits for controlled environments. Activities shall conduct this training prior to assignment to such work areas. RF safety training shall focus on awareness of the potential hazards of RF fields, established procedures and restrictions to control RF exposures, and personnel responsibility to limit their own exposures.

2217. Responsibilities.

a. CNRSW Site Safety Offices shall provide oversight and guidance to serviced activities commensurate with the level of support required.

b. Activities shall

(1) Establish a Laser Safety Hazard Control Program and designate in writing a LSSO, as required.

(2) Ensure all lasers/laser systems are classified and labeled by the manufacturer.

(3) Ensure users of Class IIIa laser pointers are properly trained and cognizant of the hazards of laser pointers.

(4) Ensure applicable personnel, including qualifying laser workers, are entered into the medical surveillance program.

(5) Ensure appropriate personnel receive laser and/or RF safety training.

(6) Ensure RF baseline certification and resurvey/recertification requirements are met as applicable.

(7) Ensure RF hazard warning signs are posted, warning labels affixed and appropriate devices used as recommended by cognizant authority incident to recognized RF hazards.

CHAPTER 22

REFERENCES

- 22-1 OPNAVINST 5100.23 (Series), Navy Occupational Safety and Health Program Manual
- 22-2 American Council of Government Industrial Hygienists, Threshold Limit Values and Biological Exposure Indices
- 22-3 American National Standards Institute, American National Standard for the Safe Use of Lasers, ANSI Z136.1-1993
- 22-4 21 CFR 1040 (as amended) (NOTAL)
- 22-5 SPAWARINST 5100.12B, Navy Laser Hazards Control Program (NOTAL)
- 22-6 NAVMEDCOM 6470.19 of 24 AUG 90, Laser Safety for Medical Facilities (NOTAL)

CHAPTER 23

ERGONOMICS PROGRAM

2301. Discussion. This program seeks to prevent injuries and illnesses by applying ergonomic principles to identify, evaluate, and control ergonomic risk factors for work-related musculo-skeletal disorders (WMSDs). WMSDs are disorders of the musculoskeletal and nervous system occurring in either the upper or lower extremity and the spine. These injuries include both cumulative trauma disorders (CTDs) and overexertion injuries (sprains and strains).

2302. Management Commitment and Employee Involvement. Aggressive and coordinated management action is necessary to prevent WMSDs and to control claims and costs related to these injuries. Commitment by management provides the organizational resources and motivating force necessary to deal effectively with ergonomic hazards. Employee involvement and feedback are likewise essential, both to the identification of existing and potential hazards, and to the development of an effective means for their abatement.

2303. Hazard Prevention and Control. Corrective actions should be considered for ergonomic risk factors which include (in preferred order of priority): process elimination, engineering controls, substitution of materials/tools/equipment, improved work practices and administrative controls (e.g., lifting restrictions, adjustment of work-rest cycles, slowing work pace and job rotation).

a. Engineering Controls. Following process elimination, engineering controls are the preferred mechanism for controlling ergonomic risk factors. These controls may entail redesign of workstations, work methods, and tools to control/eliminate the risk factors.

b. Administrative Controls. Administrative controls, such as rotating employees to jobs with dissimilar physical requirements, establishing work/rest schedules, or training employees to use appropriate work methods must be considered when engineering controls are not feasible.

c. While it is recognized that some heavy lifts cannot be avoided, many lifting operations can be designed to require assistance of other personnel or the use of mechanical handling equipment.

2304. Planned Facility Modifications and Equipment Purchases.

When plans are developed for new or modified facilities, processes, materials, and equipment, the supervisor and the Safety Office will analyze such plans to identify opportunities to eliminate or reduce ergonomic hazards.

2305. Training

a. A key to establishing an Ergonomics Program is the proper training of managers, supervisors, professional staff, and employees, as appropriate. Much of the training given as part of an Ergonomics Program is actually an attempt at behavior modification.

(1) Managers shall receive training to effectively carry out responsibilities for the health and safety of their employees.

(2) Supervisors shall:

(a) Receive training to recognize hazardous work practices and the symptoms of WMSDs, determine steps needed to remove ergonomic risk factors, and to reinforce the ergonomics program.

(b) Receive specialized training in WMSD and back injury prevention

(3) Employees shall receive training and formal instruction describing various risk factors associated with their jobs, tools, task, processes, and equipment.

b. Ergonomics training is designed to promote awareness, reduce, and minimize ergonomic hazards.

2306. Responsibilities

a. Supervisors shall:

(1) Ensure personnel identified at risk receive WMSD and back injury prevention training.

(2) Review work assignments to eliminate, whenever possible, repetitive and prolonged static activities, forceful exertions, awkward postures, excessive vibration from power tools or vehicles, and workstations lacking adjustability.

b. Employees shall:

(1) Complete WMSDs and back injury prevention training

when applicable.

(2) Complete pre-placement and periodic medical examinations when required.

(3) Report all WMSDs and back injuries to their supervisor.

(4) Obtain assistance from co-worker or use mechanical devices when it is determined that objects to be lifted are beyond his/her capability.

(5) Use proper lifting techniques.

c. Safety Office shall:

(1) Identify areas, operations and personnel with the highest frequency of WMSDs. Analyze mishap data to identify the number, frequency, type, location and cost of these injuries. Target prevention and control through training personnel and operations with the highest frequency of injuries.

(2) Provide Ergonomics training.

(3) Review operations to determine where restrictions or reductions can be obtained in weight-lifting, twists, turns, lifting heights, operational heights, etc.

(4) Conduct work site and workplace analyses per reference 23-1.

d. Labor & Management Relations Office shall:

(1) Manage and control compensation claims.

(2) Establish an effective return-to-work program including light duty, job restructuring and rehabilitation for personnel with WMSDs and back injuries.

(3) Research compensation claim records and any other injury records prior to placement of personnel in jobs that may aggravate an existing condition.

(4) Assure adequate and reasonable physical requirements are established for each position consistent with the provisions of Civilian Personnel Regulations.

e. Servicing Medical Treatment Facility shall:

(1) Conduct medical examinations to assure personnel meet the physical requirements for the position.

(2) Provide recommendations to Labor & Management Relations Office regarding work modification or suitable work for light duty candidates.

CHAPTER 23

REFERENCES

- 23-1 OPNAVINST 5100.23 (Series), Navy Occupational Safety and Health (NAVOSH) Program Manual

CHAPTER 24

ENERGY CONTROL PROGRAM (LOCKOUT TAGOUT) FOR ASHORE

2401. Purpose. This chapter provides minimum guidance and procedures for locking out or tagging out the sources of energy to equipment or systems under the requirements of reference 24-1, 24-2 and 24-3.

2402. Scope. These requirements apply to the control of energy during servicing and maintenance of machinery and equipment ashore. They are to be used only when the unexpected energizing or movement of machinery or equipment parts or the release of energy during the maintaining or servicing of such equipment/machinery could cause injury to personnel and/or property damage.

2403. Application

a. The following operations require the lockout/tagout procedure to be applied:

(1) When performing maintenance or servicing on equipment or machinery and is working in a position where the unexpected startup of the equipment or release of stored energy could result in an injury.

(2) When an employee removes or bypasses a guard or safety device.

(3) When an employee is required to place any part of his/her body into an area where work is actually performed upon the material being processed or where a danger zone exists during a machines operating cycle.

(4) To ensure that the machine or equipment is isolated from all potentially hazardous energy.

b. Areas in which lockout/tagout procedures do not apply include the following:

(1) Work on cord and plug-connected electrical equipment where exposure to the hazards of unexpected start-up of the equipment is controlled by unplugging the equipment and the plug is under the exclusive control of the worker performing the servicing or maintenance.

(2) For other areas in which lockout/tagout procedures do not apply, consult reference 24-1.

2404. Definitions:

a. Affected Employee: A person whose job requires them to operate or use machinery or equipment on which servicing or maintenance is being performed under lockout or tagout, or whose job requires them to work in an area in which such servicing or maintenance is being performed.

b. Authorized Employee: A person who implements a lockout/tagout on machine or equipment to perform the servicing or maintenance. An authorized employee and the affected employee may be the same person when the affected employee's duties also include performing maintenance or servicing on a machine or equipment that is to be locked or tagout.

c. Capable of Lockout: An energy isolating device will be considered to be capable of being locked out only if it is designed with a hasp or other attachment or integral part to which, or through which, a lock can be affixed, or if it has a locking mechanism built into it. Other energy isolating devices will also be considered capable of being locked out, if lockout can be achieved without the need to dismantle, rebuild, or replace the energy isolating device or permanently alter its energy control capability.

d. Energized: Connected to an energy source or containing residual or stored energy.

e. Energy Isolating Device: A mechanical device that physically prevents the transmission or release of energy, including but not limited to the following:

- (1) Manually operating circuit breaker,
- (2) Disconnect switch,
- (3) Valve, etc.

Note: The term does not include a push button, selector switch, and other control circuit type devices.

f. Energy source: Any source of electrical, mechanical, hydraulic, pneumatic, chemical, thermal, or other energy.

g. Lockout: A padlock placed on a power source with a lockout device that physically holds an energy control point,

such as a switch, lever, or valve handle in the "off" position and makes it impossible to operate.

h. Lockout Device: A device that utilizes a positive means such as a lock.

i. Tagout: The placement of a tag device on an energy-isolating device, to be used only when a Lockout is not possible and in conjunction with a lockout device. Tagout is a written warning that tells co-worker not to operate a switch, lever, or valve that could release hazardous energy or set a machine in motion. Although the tag acts as a warning device, it does not physically prevent someone from releasing the energy.

2405. General Procedures. The application of energy controls (implementation of lockout or tagout procedures) shall require all of the following elements and actions to be taken in the following sequence:

a. Authorized employees shall be designated in writing by supervisor.

b. Notify all affected employees that a lockout or tagout system is going to be utilized and the reason therefor. The authorized employee shall have knowledge of the type and magnitude of the energy involved, the hazards of the energy to be controlled, and the method or means to control the energy.

c. The machine, piece of equipment, or system shall be turned off or shut down using written procedures which are consistent with references mentioned at the end of this chapter. An orderly shutdown must be used to avoid any additional or increased hazard(s) to employees as a result of equipment unexpected start up.

d. All energy isolating devices that are needed to control the energy to the machine or equipment shall be physically located and operated in such a manner as to isolate the machine or equipment from the energy source(s). Stored energy (springs, elevated machine members, rotating flywheels, hydraulic systems, and air, gas, steam, or water pressure) must be dissipated or restrained by a method such as repositioning, blocking, bleeding down, etc.

e. Appropriate lockout or tagout devices shall be applied. Lockout devices shall be used whenever feasible. Tagout devices shall only be used in those procedures for which lockout devices cannot be used or when equipment designed does not provide a means of positive protection. Additionally:

(1) Lockout or tagout devices shall be affixed to each energy-isolating device by authorized employees only and shall maintain total control of all lockout/tagout devices.

(2) Lockout devices, where used, shall be affixed in a manner that will hold the energy isolating devices in the "safe" or "off" position.

(3) Tagout devices, including their means of attachment, shall be substantial enough to prevent inadvertent or accidental removal. Tagout devices attachment means shall be of a non-reusable type, attachable by hand, self-locking, and non-releasable with a minimum unlocking strength of no less than 50 pounds and having the general design and basic characteristics of being at least equivalent to a one-piece.

(a) Where a lockout cannot be implemented, tagout devices shall be used with procedures approved by the Regional Safety office, and only for equipment types specified. If tagout procedures will be used, refer to appendix 24-A. Appendix 24-B may be used for identifying such equipment.

(b) When tagout procedures are used, comply with 29 CFR 1910. 147(c)(7)

(c) Where a tag cannot be affixed directly to the energy isolating device, the tag shall be located as close as safely possible to the device, in a position that will be immediately obvious to anyone attempting to operate the device.

(d) Remove fuse(s) or disconnect from circuit breaker(s).

(e) Remove valve handle to reduce the likelihood of inadvertent start up. Following the application of lockout or tagout devices to energy isolating devices, all potentially hazardous stored or residual energy shall be relieved, disconnected, restrained, and otherwise rendered safe. If there is a possibility of accumulation of stored energy to a hazardous level, verification of isolation shall be continued until the servicing or maintenance is completed, or until the possibility of such accumulation no longer exists.

(f) Prior to starting work on machines or equipment that have been locked-out or tagged-out, the authorized employee shall verify that equipment has been isolated and de-energized. The authorized employee shall verify that all affected employees are not in an area that could be dangerous during equipment start

up. The authorized employee shall verify the system or equipment is de-energized by testing with an appropriate instrument or by attempting to energize the system or equipment.

(4) In situations that require lockout or tagout devices to be temporarily removed from the energy isolating device to test or position the machine, equipment or a component thereof, the following sequence of actions shall be followed:

(a) Clear the machine equipment or system of tools and materials.

(b) Clear the area of nonessential tools and materials and ensure that the machine, equipment, or system components are operationally intact.

(c) Remove all employees not required for the test or positioning from the machine or equipment area.

(d) Verify affected employee(s) is/are in a safe location.

(e) Remove lockout or tagout devices.

(f) Energize and proceed with testing or positioning.

(g) De-energize all systems and reapply energy control measures and lockout/tagout devices to continue the servicing and/or maintenance.

(5) Before lockout or tagout devices are removed permanently and energy is restored to the machine or equipment, procedures shall be followed and actions taken by the authorized employee(s) to ensure the following:

(a) The work area shall be checked to ensure that nonessential items have been removed and that machine and/or equipment components are operationally intact.

(b) Employee notification: Before lockout or tagout devices are removed and before machines and/or equipment are energized, affected employees shall be notified that the lockout or tagout devices are being removed. Also, the work area shall be checked to ensure that all employees have been safely positioned or removed.

(6) The authorized employee who applied the device shall remove lockout and/or tagout devices from each energy-isolating device. When the authorized employee who applied the lockout or

tagout device is not available, the device may be removed under the direction of the authorized employee's supervisor, provided:

(a) Authorized employee is not on station; and

(b) There is no more than one authorized employee lockout device attached.

(7) A log shall be kept of energy control maintenance performed and an inventory for all machinery and equipment on site.

2406. Responsibilities:

a. Regional Safety office shall:

(1) Review all Lockout/Tagout procedures

(2) Conduct annual audit/inspection of program and generate a consolidated summary of all command specific annual audit/inspection results to be submitted to the Regional Safety Program Manager.

(3) Maintain records of current and if available, previous inspections

(4) Conduct periodic checks/prepare certification

(5) Conduct Lockout/Tagout training

b. Supervisors shall:

(1) Ensure that equipment or systems under their cognizance that fall under section (2402) of this chapter shall use appendix 24-C in assisting them in establishing equipment energy control procedures.

(2) Ensure that affected employees are familiar with the procedures and requirements of the energy control procedures implemented in the area.

(3) Ensure authorized employees are appointed in writing.

(4) Ensure training is documented as per chapter (6) of this instruction.

(5) Submit Original training rosters to the Regional Safety Office.

(6) Conduct a periodic review of the energy control (Lockout/Tagout) procedures, whenever an accident or incident occurs, and at least annually to ensure the procedures and requirements of references 24-1, and 24-3, are being followed. Appendix 24-D is an example of a periodic review.

c. Authorized Employees shall:

(1) Be familiar with the type and magnitude of the energy involved, hazards, and methods or means to control the energy.

(2) Follow set procedures to avoid any additional or increased hazards(s) to employees as a result of equipment de-energization.

(3) Be familiar with applicable energy control devices, where to physically locate and place devices, and use lockout devices whenever feasible.

(4) Be familiar with tagout requirements.

(5) Verify and ensure that isolation and de-energization of machine or equipment have been accomplished, by approved instruments and by attempting to energized or start equipment.

(6) Be familiar with written procedures when lockout/tagout devices are required to be temporarily removed to test or position equipment.

2407. Training.

a. Supervisors shall ensure that all personnel receive required training per reference 24-1. Also, new employee shall be trained on energy control requirement using appendix 24-E.

b. Ensure that affected employees receive instructions in the requirements of the lockout/tagout program.

c. Supervisors shall ensure that all authorized and affected employees are retrained; whenever there is a change in their Job/task assignments, a change in the machine, equipment or processes that present a new hazard, or when there is a change in the energy control procedures.

d. Provide and emphasize extra training whenever a tagout procedure is used as per reference 24-2.

REFERENCES

CHAPTER 24

- 24-1. OPNAVINST 5100.23E
- 24-2. 29 CFR 1910, Section 147 and 332
- 24-3. American National Standards Institute (ANSI) Standard Z244.1-1982, Safety Requirements for Lockout/Tagout of Energy Sources (NOTAL)

Appendix 24-A

SPECIFIC TAGOUT PROCEDURE
(For use on systems/processes that cannot be locked out)

Equipment, Machinery, or Process: _____

Tagout Procedure No.: T/O _____ - _____ Date Approved/Implemented: _____

NOTE: Required for all equipment, machinery, and/or processes that fail to have lockout capabilities.

Follow and use sequence of lockout/tagout procedure to properly comply with standard.

1. The purpose of this specific procedure is to protect the life and limb of the employees of:
2. Type(s) and magnitude(s) of energy and hazards:
3. Name(s)/job title(s) of employees authorized to lockout/tagout:
4. Name(s)/job title(s) of affected employees and how to notify:
5. Name(s)/job title(s) of other employees:
6. Type(s) and location of energy isolating means:
7. Type(s) of stored energy – methods to dissipate or restrain:
8. Additional method(s) selected to ensure that tags provide adequate level of safety (i.e., removal of an isolating circuit element, blocking of a controlling switch, opening of an extra disconnecting device or the removal of a valve handle to reduce the likelihood of inadvertent energization):
9. Type(s) of equipment checked to ensure disconnection:
10. Name(s)/job title(s) of employees authorized for group tagout:
11. Special precautions not noted above (i.e., fire hazards, chemical reactions, required cool down periods, etc.):

Appendix 24-C

ENERGY CONTROL PROCEDURES**Purpose**

This procedure establishes the minimum requirements for the lockout of energy isolating devices whenever maintenance or servicing is done on machines or equipment. It shall be used to ensure that the machine or equipment is stopped, isolated from all potentially hazardous energy sources and locked out before employees perform any servicing or maintenance where the unexpected energization or start-up of the machine or equipment or release of stored energy could cause injury.

Compliance with this Program

All employees are required to comply with the restrictions and limitations imposed upon them during the use of lockout/tagout. The authorized employee is required to perform the lockout/tagout in accordance with this procedure. All employees, upon observing a machine or piece of equipment that is locked out to perform servicing or maintenance shall not attempt to start, energize, or use that machine or equipment.

NOTE: Disciplinary action will be taken for the above violation.

Responsibility

The responsibility for seeing that this procedure is followed is binding upon all employees. All employees shall be instructed in the safety significance of the lockout procedure by (designate individual). (Designate individuals) shall instruct each new or transferred affected employee in the purpose and use of the lockout procedure.

Preparation for Lockout:

Employees authorized to perform lockout shall be certain as to which switch; valve or other energy-isolating devices apply to the equipment being locked out. More than one energy source (electrical, mechanical, or others) may be involved. The employees shall clear any questionable identification of sources with their supervisors. Before lockout commences, job authorization should be obtained.

LOCKOUT/TAGOUT SEQUENCE (*Fill-out the information on the lockout/tagout log*)

- Step 1.** Notify all affected employees that servicing or maintenance is required on a machine or equipment and that the machine or equipment must be shut down and locked out to perform the servicing or maintenance. Notification could be done through the E-mail, verbally tell the people around the areas and/or by posting notice in work area.
- Step 2.** The authorized employee shall refer to appendix A of this procedure to identify the type and magnitude of the energy that the machine or equipment utilizes, shall understand the hazards of the energy, and shall know the methods to control the energy.

- Step 3.** If the machine or equipment is operating shut it down by the normal stopping procedure (depress stop button, open switch, close valve, etc.)
- Step 4.** Deactivate the energy isolating device(s) so that the machine or equipment is isolated from the energy source(s).
- Step 5.** Lockout the energy isolating device(s) with assigned individual lock(s) if practical. If it's not possible to lock the system then the tag must be secured directly or as closed as possible to the isolation device so that affected personnel are clearly warned to stay away.
- Step 6.** Stored or residual energy (such as that in capacitors, springs, elevated machine members, rotating flywheels, hydraulic systems, and air, gas, steam, or water pressure, etc.) must be dissipated or restrained by methods such as grounding, repositioning, blocking, bleeding down, etc.)
- Step 7.** Ensure that the equipment is disconnected from the energy source(s) by first checking that no personnel are exposed, then verify the isolation of the equipment by operating the push button or other normal operating control(s) or by testing to make certain the equipment will not operate.

CAUTION

**Return operating control(s) to neutral
or OFF position after verifying
the isolation of the equipment.**

- Step 8.** Restoring Equipment to Service: When the servicing or maintenance is completed, and the machine or equipment is ready to return to normal operating condition, the following steps shall be taken:
- 1) Check the machine or equipment and the immediate area around the machine or equipment to ensure that nonessential items have been removed and that the machine or equipment components are operationally intact.
 - 2) Check the work area to ensure that all employees have been safely positioned or removed from the area.
 - 3) Verify that the controls are in no harm.
 - 4) Remove the lockout devices and re-energize the machine or equipment.
 - 5) Notify affected employees that the servicing or maintenance is completed and the machine or equipment is ready for use.
- Step 9.** Give the Lockout/Tagout log to the supervisor/foreman to be filed for future audit

Lockout/Tagout Log

Date: _____ Type of Equipment: _____ Type of Tag: Danger

Base: _____ Building: _____ Lock #: _____

Authorized employee: _____ Work to be performed: _____

Step 1: Affected employees (*Notification method*): _____

Step 2: Energy to be controlled:

Type: _____
 Hazard: _____
 Method of control _____

Step 3: Method of shutdown (*Type/Location*): _____

Step 4: Energy isolation devices used/location (*Type/Location*): _____

Step 5: Type of lock to be installed: _____

Step 6: Method of restrained (*Circle one or more*): N/A, Dissipation, Grounding, Repositioning, blocking, bleed, other: _____

Step 7: Verification of isolation (*Circle one or more*): Start-up attempt, Test, Visual inspection

Step 8: Restoring equipment to Service (*Signature*): _____ Date: _____

Step 9: Submit this log to your supervisor.



Date: _____ Type of Equipment: _____ Type of Tag: Danger

Base: _____ Building: _____ Lock #: _____

Authorized employee: _____ Work to be performed: _____

Step 1: Affected employees (*Notification method*): _____

Step 2: Energy to be controlled:

Type: _____
 Hazard: _____
 Method of control _____

Step 3: Method of shutdown (*Type/Location*): _____

Step 4: Energy isolation devices used/location (*Type/Location*): _____

Step 5: Type of lock to be installed: _____

Step 6: Method of restrained (*Circle one or more*): N/A, Dissipation, Grounding, Repositioning, blocking, bleed, other: _____

Step 7: Verification of isolation (*Circle one or more*): Start-up attempt, Test, Visual inspection

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Step 8: Restoring equipment to Service (*Signature*):__ Date: _

Step 9: Submit this log to your supervisor.

Procedure Involving More Than One Person:

In the preceding steps, if more than one individual is required to lock out equipment, each shall place their own personal lock on the energy isolating device(s). One designated individual of a work crew or a supervisor, with the knowledge of the crew, may lock out equipment for the whole crew. In such cases, it shall be the responsibility of the individual to carry out all steps of the lockout procedure and inform the crew when it is safe to work on the equipment. Additionally, the designated individual shall not remove a crew lock until it has been verified that all individuals are clear.

Requirements for Contractors or other Outside Personnel:

When a system is locked and tagged to support contractor work, the use of locks and crew locking hasps is mandatory. The employee locking out the equipment for the contractor will attach a crew hasp, lock and tag on the energy-isolating device. This lock and tag will remain until the completion of the contractor(s) work. The contractor will use their locks and tags as an additional safeguard. An employee, who must work on the system, while locked and tagged for the contractor, must attach their own lock to the crew hasp for the duration of their own work. Lock and tags used to support contractor(s) work will not be removed until the following checks have been performed: Guards have been reinstalled, a detailed inspection of the contractors work has been performed and that all personnel are in the clear.

Turnover for shift or personnel changes:

- a. Turnover includes outgoing shift employee providing the incoming employee with all pertinent information on job progress and lockout or tagout status.
- b. Outgoing employees shall remove their lockout or tagout devices when corresponding incoming employees attach theirs.
- c. In the event prior shift employees are not available (second or third workshift) authorized employees shall ensure pertinent information regarding job progress and lockout or tagout process is documented and forwarded to the supervisor. The supervisor shall then effect continuity of the lockout or tagout process by releasing the equipment or machine to the incoming shift.

NOTES:

- 1) The removal of some forms of blocking may require re-energization of the machine before safe removal.
- 2) If equipment cannot be locked-out/tagged-out, post necessary personnel to protect against unauthorized access.
- 3) Never remove someone else's lock. Always notify your supervisor or upper management that a lock is attached and the person it belongs to is not available.
- 4) The line supervisor shall make a reasonable effort to contact the authorized employee in order to verify that the authorized employee who applied the device is not at the activity before removing energy isolating device. Ensure that the energy isolating device removal is logged in the Energy Control logbook immediately.

Method of Isolating or Blocking Energy	Method of Securing Point of Control (Lockout/Tagout)	Remarks	Method of Isolating or Blocking Energy	Method of Securing Point of Control (Lockout/Tagout)	Remarks	Method of Isolating or Blocking Energy	Method of Securing Point of Control (Lockout/Tagout)	Remarks
Type of Energy: Mechanical - Rotational/Linear			Type of Energy: Electrical			Type of Energy: Potential (Pressure)		
1) Remove segments of operating mechanical linkages such as dismantling push rods and removing belts or flywheels.	a) Tag the linkages and place them in a locked cabinet away from the machine and/or b) Attach warning tags where the linkages were removed and restrict access to trained personnel and/or c) Post a person to protect against unauthorized reinstallation of the linkage.		1) Place main electrical disconnect switch in OFF position	a) Secure by a padlock or a bar and padlock and/or b) Attach a warning tag and restrict access into the area to trained personnel and/or c) Post a person to protect against unauthorized actuation of the switch.		Close valves and maintain open vent to relieve pressure.	a) Secure, block, blind flange, slip blind, or valve with locking device and/or b) Attach warning tags and restrict access to trained personnel and/or c) Station a person at the valves to protect against unauthorized actuation.	Energy could be dissipated by lowering to a point where gravity could no longer cause inadvertent falling
2) Use blocking devices such as wood or metal blocks.	a) Chain and lock at the point of control and /or b) Attach warning tags on the blocking devices and restrict access into the area to trained personnel and/or c) Post a person to protect against unauthorized removal of the blocking devices.		2) Remove segments of electrical circuit, such as printed circuit modules.	a) Tag the module and place in a locked cabinet center and control center and tag the control center door b) Attach a warning tag at the module location and restrict access to trained personnel c) Have a person remain at the control center to protect from unauthorized installation of a spare or replacement module		Block in place by using metal or wood blocks under the mechanism, or pin the linkages in a position where gravity will not cause the mechanism to inadvertently fall.	a) Secure, block, or pin with a locking device and/or b) Attach warning tags to blocks, linkages, and pins and restrict personnel and/or c) Station a person at the mechanism to prevent unauthorized removal of blocks and pins and reinstallation of linkages.	
Type of Energy: Mechanical - Rotational/Linear			Type of Energy: Electrical			Type of Energy: Potential (Gravity)		
3) Remove power or energy from the driving mechanism such as main disconnect electrical source	a) (1) Padlock in the OFF position. (2) Disconnect pneumatic and hydraulic lines and tagout and/or b) Attach warning tags at control points and restrict access to trained personnel and/or c) Post a person to protect against unauthorized reconnection of the energy sources.	Check for alternate sources of power. Check for residual pneumatic and hydraulic energy.	Type of Energy: Thermal (Steam)			Type of Energy: Potential (Springs)		
			Close valves and maintain an open bleed.	a) Chain and padlock valve or use blind flanges or slip blinds and/or b) attach warning tags to the valves and restrict access to the area to trained personnel and/or c) Station a person at the valve locations to protect against unauthorized or inadvertent opening of valves	Allow time for residual heat to dissipate	Block in a safe position by pinning or clamping the device, eliminating the potential of unrestricted and undesired travel.	a) Secure, pin, or clamp in place with a locking device and/or b) Attach warning tags to the pins and clamps and restrict release or access to trained personnel and/or c) Station a person at the control point to protect against pin or clamp removal and unauthorized activation of the spring mechanism.	Spring energy could be dissipated by release or dismantling of the mechanisms.

Appendix 24-D

WORKCENTER PERIODIC REVIEW OF ENERGY CONTROL PROCEDURES

(To be performed by a supervisor or authorized person, other than those utilizing the energy control.)

Machine/Equipment/System under review: _____

BLDG #: SHOP: Location: _____

Employee(s) being reviewed:

Authorized Employee	Affected Employee

Person performing review: _____ Date of review: _____

Note: (1) This review shall be performed by a supervisor or authorized person other than those utilizing the energy control.

a. Review shall target and identify any deviations or inadequacies.

b. The inspector shall ensure that there is documentation available to indicate that the authorized employee has received training on the recognition of applicable specific training for the type and magnitude of the energy available, methods and means necessary for energy isolation, controls, procedures and responsibilities.

Note: (2) If the review being performed is utilizing the use of a **Tagout**.

The inspector shall include a discussion with the authorized and affected employees on their responsibilities under the energy control procedures and elements of the program.

Limitations of Tags

1. ___ Only warning devices, not physical restraints.
2. ___ Do not remove without authorization; never bypass, ignore, or otherwise defeat tag.
3. ___ Must be legible and understandable.
4. ___ Tags and means of attachment must be made of materials that will withstand workplace environmental conditions.
5. ___ May evoke false security; understand meaning.
6. ___ Securely attached to energy isolating devices.

APPENDIX 24-E

Affected Employee Training Checklist

Supervisors are to provide new employees involved with lockout/tagout situations the following information. This checklist is to be signed, dated, and retained by the supervisor. *Provide a copy to the Safety Office.*

Employee Name: _____ **Code:** _____

Machinery/Equipment Type(s): _____

_____ Explain the significance of why a machine is locked or tagged out.

_____ Explain what an employee is to do (and not do) when encountering a tag or lock on a switch or device they want to operate.

_____ Explain the importance of notification of affected employees.

_____ Show the employee the location of all locks, tags, and lockout devices.

_____ Explain how to recognize the applicable hazardous energy sources.

_____ Explain the type(s) and magnitude of energy to be isolated on the machinery and how to control.

_____ Explain the proper sequence of locking out or tagging out - "Standard Operating Procedure".

Employee Signature: _____
 (* Signature acknowledges full understanding of the above subject matter program elements.)

Supervisor Name: _____

Supervisor Signature: _____

Date Training Completed: _____

CHAPTER 25

POLYCHLORINATED BIPHENYLS (PCBS)

2501 Discussion

a. Identification. PCBs can be in an oily liquid, white crystalline solid or hard resin form. They are nonflammable and stable. PCBs are not soluble in water, but are soluble in oils. A list of some trade names for PCB materials is shown in Appendix 25-A.

b. Uses. PCBs are used in electrical transformers, felt, gaskets, synthetic rubbers, plasticizers, and other materials.

c. Toxicity. In general, PCBs do not present a major human health hazard. Many animal toxicity and human epidemiological studies have been conducted to evaluate the toxicity and health hazards presented by both acute and chronic PCB exposure. The only human health hazard associated with prolonged exposure to liquid PCBs is a type of skin lesion characterized as chloracne. Eye irritation, chloracne, and sub clinical liver enzyme abnormalities have been recorded with high inhalation exposures. No adverse human effects have ever been described for exposures to PCB surface contamination alone. Low vapor pressure associated with PCBs and air sampling conducted at a variety of industrial processes involving PCBs confirms airborne concentrations are rarely detectable.

d. Toxicity By-Products. In large-scale fires or very high temperature conditions, PCBs undergo chemical reactions that produce toxic by-products (chlorinated dioxins and furans). The health effects related to these compounds have often been wrongly assumed to pertain to PCBs.

e. The National Institute for Occupational Safety and Health (NIOSH) and the International Agency for Research on Cancer have concluded that there is sufficient toxicological evidence to characterize PCBs as "suspected carcinogens". However, the Occupational Safety and Health Administration (OSHA) and the American Conference of Governmental Industrial Hygienists (ACGIH) characterize PCBs as suspected carcinogens.

2502. Program Requirementsa. Permissible Exposure Limits (PEL)

(1) Airborne Exposure Limits. Unprotected workers shall not be exposed to PCB concentrations above the PEL Value. The

PEL for airborne PCBs is shown in Table 25-1. These values are time-weighted averages for any 8-hour work shift in a 40-hour workweek. Workplace PCBs are regulated air contaminants by reference 25-1.

Table 25-1. Airborne Exposure Limits for Polychlorinated Biphenyl (PCBs)

Chlorine in PCB (%)	PEL (mg/m ³)
42	1.0
54	0.5

(2) Direct Skin Exposure. Direct skin exposure to PCBs shall be prevented wherever possible using controlled processes or protective clothing.

(3) Surface Contamination. The maximum permissible PCB surface contamination is 10 ug/100 cm². Contamination above this level requires the use of protective clothing.

(4) Oil and Solids Contamination. Oils containing less than 5 parts per million (ppm) and solids (or soil) containing less than 50 ppm of PCBs are considered PCB-free and skin protection is not required for these levels.

NOTE: Items with PCBs above the levels of Paragraphs (3) and (4) above, are referred to as "PCB" items in the remainder of this chapter.

b. Monitoring. Air sampling shall be performed when it is suspected that PCBs have been dispersed in the atmosphere or subjected to temperatures well above 100 degrees fahrenheit. Surfaces shall be checked for PCB contamination by wipe samples. This ensures employees are not exposed to concentrations of PCBs above the PEL. Frequency of sampling shall be determined by the Industrial Hygienist following established workplace monitoring plans.

c. Posting and labeling

(1) Posting. PCB warning signs shall be displayed in a readily visible location in or near PCB work and storage areas. The cognizant shop or code shall post the signs.

(2) Labeling. The shop or activity having maintenance responsibility shall label all PCB items as follows:

(a) Labels shall be placed in an easily read position on the item.

(b) If the PCB ppm level is known, mark it on the label using a permanent marker.

(c) The PCB label shall have black letters on a white or yellow background. It shall be at least 6 inches on a side unless an item is too small to accommodate it. The label may be reduced proportionately to a minimum of 2 inches on a side.

(d) The PCB CAUTION sticker may be used for smaller items.

d. Personal Protective Equipment

(1) Protective Clothing. Employees engaged in handling PCB contaminated or PCB impregnated material (from operations such as "rip out" or "stripping") or liquid PCBs, during which skin contact is probable, shall wear the following protective clothing:

(a) Full-body, one-piece disposable coveralls constructed of Saranex-coated Tyvek or comparable material.

(b) Gloves made from Viton with latex gloves worn over them.

(c) Foot coverings made from nitrile or neoprene. Foot coverings shall be worn if foot contamination by any means is probable.

(d) Face shields (8-inch minimum) with vented goggles or other appropriate eye protection. These shall be worn wherever eye contact with PCBs is possible.

(2) Respiratory Protection. The need for respiratory protection will be determined by the cognizant Industrial Hygienist after review and monitoring of proposed work practices and the use of respirators shall comply with the requirements of Chapter 15 of this instruction. When airborne concentrations of PCBs exceed the PEL, a supplied air respirator with full face-piece shall be used as follows:

(a) The respirator shall be operated in the demand pressure or other positive-pressure mode.

(b) Selection of respiratory protection for PCB decontamination operations must consider the solvents used and the potential airborne concentrations of those solvents.

(c) In addition, the possible presence of chlorinated dioxins and furans also should be considered.

e. Work Practices

(1) General Work Practices. The following general work practices shall be followed when working with PCB items:

(a) PCB work situations not exceeding PELS and not involving unprotected PCB skin contact do not require any unusual work and personal hygiene measures.

(b) When working with PCB impregnated materials, such as insulating felts or with items that contain liquid PCB solutions, good housekeeping procedures shall be observed. This will avoid the chance of secondary contamination.

(c) Access to PCB work areas will be limited to authorized employees. Work areas shall be posted. A PCB work area is a regulated area where there is occupational exposure to PCBs. This does not include areas where PCBs are merely present in equipment without occupational exposure.

(d) Hot work shall not be performed in the immediate area when work is performed with PCB material.

(e) Permanent and Temporary PCB work and storage areas shall have emergency eyewash facilities that can be reached in 10 seconds.

(f) Before servicing PCB items, the employees must be trained according to Paragraph 2503k.

(g) PCB containers and systems shall be handled and opened with care. Employees opening, connecting, and disconnecting PCB containers will wear approved protective clothing and systems.

(h) When PCB storage containers are being moved, drip pans shall be in place. PCB units in drip pans will be posted and secured to prevent dropping or damage during transport.

(i) Transformers containing PCBs may not be serviced if they leak. They must be replaced.

(j) Sampling and pumping equipment used for PCB oils shall be labeled and kept apart from equipment used with non-PCB oils.

(2) Transporting PCBs. PCB items shall be moved according to the following:

(a) Only employees trained and equipped according to Paragraphs 2502d. and 2502k may move PCB items.

(b) Before moving a PCB item, appropriate measures will be taken to prevent leakage of PCB material. Containment shall be provided to contain any leakage and secondary containment shall be provided when transporting.

(c) The shop responsible for transporting PCB items shall maintain a Transport Log. Each PCB item transported record shall be available for audit by the Safety Office.

(d) The PCB transport vehicle shall be posted accordingly.

f. Sanitary Practices

(1) Employees involved in PCB activities shall not eat, drink, smoke, chew tobacco or gum, or apply cosmetics in the work area.

(2) Food, drink, or smoking material is PROHIBITED where PCBs are handled, processed, or stored.

(3) Employees working with PCB materials or in a PCB work area shall wash their hands and exposed skin (by showering if necessary) with soap and water before the following:

(a) Eating, smoking, or using toilet facilities during the work shift.

(b) Leaving the work area at the end of each work shift.

g. PCB Spills

(1) Reporting and Containing Spills. Any person discovering a spill or a situation that may lead to leakage or a spill of PCB liquid, oil or other PCB material will immediately take the following actions. The order of these actions will depend on existing conditions:

(a) Evacuate all non-essential personnel from the leak or spill area.

(b) Rope off the leak or spill area.

(c) Inform your supervisor or the first available supervisor.

(d) Report spill immediately to Fire Department and Safety Office.

(e) When reporting a spill give the below information if known or can be reasonably be determined. Do not wait until all information about the spill is available.

Your name and phone number.

Location of the spill (building number or shop/code).

Number and type of injuries.

Identity or type and estimated amount of spilled material.

Source of spill (e.g. tank, container).

Behavior of spilled material (reactions, leak, spill, fire observed).

Anticipated movement of spill and actions being taken.

Time when spill occurred.

(2) Treating Personnel with Direct Skin Contact. If an unprotected employee has liquid or solid PCBs splashed or spilled on the individual, do the following:

(a) Remove contaminated clothing.

(b) Rinse eyes immediately if PCB material has entered the eyes.

(c) Wash all exposed skin areas thoroughly, including areas under contaminated clothing, with soap and water.

(d) If there is any eye irritation or obvious reddening or changes in the exposed skin, the employee shall be referred to the Servicing Medical Treatment Facility.

(3) Spill Cleanup. Any employee performing decontamination must be trained in accordance with reference 25-3. Reference 25-3 shall be used in planning and executing PCB remediation efforts. Decontamination shall be accomplished as follows:

(a) If the PCB material is in a liquid form, use absorbent materials to collect it. The absorbent material must be disposed of as PCB waste.

(b) External surfaces shall be decontaminated by thoroughly wiping at least 3 times using solvents such as kerosene in which PCBs are at least 5 percent soluble (by weight). External surfaces are considered decontaminated when PCB concentrations are less than 10-ug/100 cm.

(c) PCB containers requiring decontamination will have their internal surfaces flushed 3 times with a solvent. A container is considered decontaminated when it has less than 5 ppm of PCBs.

(d) Any soil contaminated with greater than 50 ppm PCBs shall be removed, sealed in a container, labeled, and properly disposed of in accordance with reference 25-4.

h. PCB Storage and Use

(1) Transformers. Any transformer containing greater than 500ppm PCBs must be registered with the Fire Department. Transformers containing PCBs in or within 100 feet of a commercial building must be registered with the Environmental Division. The following is essential:

(a) The outside of all enclosures for PCB-containing transformers must be labeled with a PCB sticker for fire fighting purposes. This includes vault doors, machinery room doors, fences, hallways or other means of access.

(b) Process valves and pumps on PCB items shall be readily accessible and not located in pits or congested areas.

(2) Temporary Storage Prior to Disposal. PCB contaminated waste, scrap, debris, and PCB contaminated clothing shall be collected for disposal and sealed in impermeable plastic bags or impermeable containers. The bags or containers shall be labeled according to Paragraph 2503c. (2). PCBs and PCB contaminated materials for disposal shall be stored as follows:

(a) Any PCB item or container must be placed in an approved PCB storage area.

(b) PCB items and containers shall be tagged with initial storage date.

(c) Storage of PCBs for disposal shall not exceed 1 year.

(d) The following PCB items may be temporarily placed in a Hazardous Waste Accumulation area for storage up to 30 days:

1. Non-leaking PCB equipment.

2. Leaking PCB equipment if placed in a drip pan that contains enough absorbent material to absorb any liquid PCB material in the item.

3. Containers containing PCB contaminated soil, rags, or debris.

(e) Temporary storage areas must be labeled as a PCB storage area.

(f) Containers used for PCB storage must be structurally sound, leak-proof and meet Department of Transportation standards identified in Title 40, Toxic Substances Control Act, Subchapter R, Part 761.

i. Disposal of PCBs. Procedures for disposal of PCB materials shall be according to reference 25-4.

j. Medical Surveillance and Medical Records. If air-sampling measurements indicate that the concentration of PCB's in the air exceeds 0.5 mg/m^3 , employee notifications shall be made. This notification of exposure to PCB shall be by memorandum from the Industrial Hygienist. Records of exposure measurement shall be maintained in the employee's medical file, including a copy of the notification memorandum.

k. Training

(1) PCB Workers. Employees involved in handling or processing PCBs shall be trained in:

(a) Properties of PCBs.

(b) PCB hazards.

(c) Symptoms of PCB exposure.

(d) Effects of PCB overexposure.

(e) PCB control procedures.

(f) Selection and use of respirators (must be medically qualified and trained according to Chapter 15 of this manual).

(g) Hazard communication course (for employees engaged in handling solid materials with encapsulated PCBs and also for those who have need to enter a posted PCB area).

(h) The requirements of this Chapter and appendices.

(2) Refresher Training. PCB refresher training shall be conducted as needed in accordance to reference 25-2.

(3) Training Records. Training records shall be maintained in accordance with Chapter 6 of this instruction.

2503. Responsibilities

a. All Supervisors shall ensure employees are aware of PCB posting and labeling requirements.

b. Supervisors of PCB Workers (employees involved with PCB processes) shall:

(1) Post the PCB work area according to Paragraph 2502c(1) of this instruction when PCB operations are performed.

(2) Ensure employees expected to work in PCB operations are trained according to paragraph 2502k of this instruction before working with PCBs.

(3) Ensure that emergency eyewash facilities are stationed at temporary and permanent PCB work areas.

(4) Ensure that protective clothing is worn while handling PCBs.

(5) Immediately report all PCB leaks or spills requiring evacuation of the work area to the Fire Department and the Safety Office.

(6) Suspend all hot work in the workspace before performing PCB operations.

(7) Ensure compliance with Paragraphs 2502e, 2502h, and 2502i of this instruction for handling and storage of PCBs.

c. Employees. Employees handling or working with PCBs shall:

(1) Be trained according to paragraph 2502k before being involved in a PCB process.

(2) Wear appropriate protective clothing while handling or working with PCBs.

(3) Immediately report all PCB leaks or spills to your supervisor or the first supervisor available.

(4) Suspend all hot work in the space before starting any PCB operation.

(5) Comply with paragraphs 2502e, 2502h, and 2502i when handling or storing PCBs.

2504. Environmental Contamination. PCBs are recognized environmental contaminants. The EPA regulates the manufacture, processing, and distribution of PCBs, and establishes prohibitions on use of PCBs and PCB-containing articles. Navy requirements, which address Federal Environmental Regulations, are provided in reference 25-4. Also refer to references 25-5 and 25-6 for guidance.

REFERENCES

CHAPTER 25

- 25-1 29 CFR 1910, Subpart Z - Toxic and Hazardous Substances
Table Z-1 Limits for Air Contaminates
- 25-2 OPNAVINST 5100.23 (Series), Navy Occupational Safety and
Health (NAVOSH) Program Manual
- 25-3 40 CFR 761 - Polychlorinated Biphenyls (PCBs)
Manufacturing, Processing, Distribution in Commerce, and
Use Prohibitions. (NOTAL)
- 25-4 OPNAVINST 5090.1B, Environmental and Natural Resources
Program Manual, Chapter 9, "Oil Management Ashore",
Chapter 11 "PCP Management Ashore"(NOTAL)
- 25-6 NAVSEA S9593-A1-MAN-010, Shipboard Management Guide to
PCBs (NOTAL)

APPENDIX 25-A

POLYCHLORINATED BIPHENYL (PCB) TRADE NAMES

The following is a list of trade names and the manufacturer of PCB-containing materials. This list does not include all PCB materials.

ARCOLOR	-	Monsanto
ASBESTOL	-	American Corp
ASKAREL	-	American Corp
CHLOREXTOL	-	Allis Chalmers
DIACOLOR	-	Sangamo Electric
DYKANOL	-	Cornell Dubilier
ELEMEX	-	McGraw Edison
HYVOL	-	Aerovox
INVERTEEN	-	Westinghouse Electric
NO-FLAMOL	-	Wagner Electric
PYRANOL	-	General Electric
SAF-T-KUL	-	Kuhlman Electric
CLOPHEN	-	Bayer (Germany)
DK	-	Caffaro (Italy)
FENCOLOR	-	Caffaro (Italy)
KENNECHLOR	-	Mitsubishi (Japan)
PHENOCOLOR	-	Prodelec (France)
PYRALENE	-	Prodelec (France)
SANTOTERM	-	Mitsubishi (Japan)

CHAPTER 26

MAN-MADE VITREOUS FIBERS

2601. Discussion. This chapter provides guidance for controlling and minimizing the exposure of personnel to man-made vitreous fibers (MMVF) during use, removal, and disposal of the materials as identified in reference 26-1.

2602. Applicability. The provisions in this chapter shall apply to all facilities using man-made vitreous fiber products that are not embedded in a matrix material.

2603. Exposure Limit. The following exposure limits for MMVF's are derived in part from the 1998 American Conference of Governmental Industrial Hygienists (ACGIH) 1998 Threshold Limit Values (TLVs) as identified in reference 26-1:

a. Continuous filament glass fibers	1 f/cc
b. Glass wool fibers	1 f/cc
c. Rock wool fibers	1 f/cc
d. Slag wool fibers	1 f/cc
e. Refractory ceramic fibers	1 f/cc
f. Refractory ceramic fibers (high temp)	.05 mg/m ³

2604. Control of MMVF in the Workplace

a. General Workplace Control Practices shall include:

(1) Use wet methods whenever possible.

(2) If needed to keep exposures below the exposure limit, provide containment during removal procedures, including glove bags where applicable.

(3) Minimize airborne dust and fibers through strict adherence to good housekeeping procedures. At a minimum, work areas shall be vacuumed at the end of the day using a high efficiency particulate air vacuum.

(4) Personnel involved in MMVF operations shall not eat, drink or smoke, chew tobacco or gum, or apply cosmetics in the work area.

b. Ventilation

(1) Local exhaust ventilation (LEV) may be required to ensure that airborne levels of MMVF do not exceed the exposure limit. All such ventilation shall be HEPA filtered. Such ventilation shall be constructed, installed and maintained in accordance with references 26-2, 26-3 and 26-4.

(2) Powered tools used for machining MMVF products (i.e., saws, drills, and grinders) should be equipped with HEPA filtered local exhaust to collect dust at the source.

c. Personal Protective Clothing and Related Facilities

(1) All personnel working with MMVF materials shall wear goggles with side shields and long sleeve clothing. Leather or other impenetrable gloves and one-piece disposable coveralls should be worn. If non-disposable coveralls are used, they shall be thoroughly cleaned with a HEPA filtered vacuum before leaving the work area and shall be laundered (separately from other clothing) before wearing again.

(2) Respiratory protection may be warranted based on air sampling data.

(3) Personnel handling MMVF materials shall wash thoroughly with soap and water before breaks and at the end of the work shift.

2605. Disposal Procedures. Personnel shall adequately wet MMVF waste before placing it in heavy duty plastic bags or other suitable impermeable containers for disposal in an approved sanitary landfill.

2606. Training. Supervisors shall ensure employees who work with MMVF shall receive the following training per reference 26-1 prior to the handling of MMVF:

- a. The health effects/hazards of MMVF.
- b. Use of MMVF products, which could result in exposure.
- c. Engineering controls and work practices.
- d. Purpose, proper use and limitations of personal protective equipment and the required protective equipment when working with MMVF.

2607. Industrial Hygiene/Medical Surveillance. Workplace monitoring will be conducted to determine exposure levels. Whenever changes in production, engineering controls, work practices, or personnel occur, the work center supervisor shall notify the Safety Office so that the cognizant Industrial Hygienist may re-evaluate exposure levels. Monitoring shall be conducted to ensure that exposures are below the exposure limit. Activities shall conduct medical surveillance based on Industrial Hygiene assessment per reference 26-5.

CHAPTER 26

REFERENCES

- 26-1 OPNAVINST 5100.23 (Series), Navy Occupational Safety and Health Program Manual
- 26-2 American Conference of Governmental Industrial Hygienist Pub. No.2092, Industrial Ventilation: A Manual of Recommended Practice, 23rd Edition (NOTAL)
- 26-3 American National Standards Institute Z9.2-1979, Fundamentals Governing the Design and Operations of Local Exhaust Systems (NOTAL)
- 26-4 MIL-HDBK-1003/17C of 29 Feb 96, Industrial Ventilation Systems (NOTAL)
- 26-5 Navy Environmental Health Center Technical Manual, Medical Surveillance Procedures Manual and Medical Matrix, Latest Edition (NOTAL)

CHAPTER 27

CONFINED SPACE ENTRY (CSE) PROGRAM (NON-MARITIME)

2701. Discussion

a. Confined spaces are enclosures not designed for routine occupancy into which an employee can enter to perform work. In general, such spaces have poor ventilation, have limited means of ingress or egress, and contain potential and/or known hazards. Numerous confined spaces can be found on most Navy shore installations. Examples include storage tanks, process vessels, pits, vats, boilers, fuel cells, sewers, underground utility vaults, tunnels, and manholes. Personnel entering such spaces may encounter a variety of hazards, including:

- (1) Lack of sufficient oxygen to support life.
- (2) Excessive oxygen which increases the danger of fire or explosion.
- (3) The presence of flammable or explosive atmospheres or materials.
- (4) The presence of toxic atmospheres or materials.
- (5) Physical hazards such as:
 - (a) Slippery surfaces.
 - (b) Conduits.
 - (c) Cables, protruding sharp objects, or other obstructions to passage.
 - (d) Deteriorated or unstable ladders.
 - (e) Machinery and electrical devices that require energy isolation (lockout/tagout procedure), etc.
 - (f) Engulfment. Poor illumination often compounds these hazards.

b. Customer activities shall consider all confined spaces hazardous and prohibit entry into or work on the boundaries of such spaces until a Confined Space Program Manager (CSPM) or Assistant Confined Space Manager (ACSPM) evaluates the space to establish appropriate safety precautions. This chapter outlines

policy and provisions, which apply to all non-maritime Navy installations.

2702. Basic Program Elements The confined space entry program consists of six basic program elements.

a. Identification and Preliminary Evaluation

(1) Confined Space. The CSPM/ACSPM, in coordination with appropriate line managers, shall identify all confined spaces having reasonable potential for personnel entry. For the purpose of identification, a confined space is a space that:

(a) Is not designed for routine, continuous occupancy; and

(b) An employee can bodily enter to perform work; and

(c) Is poorly ventilated and/or has limited means of ingress or egress.

(2) Permit Required Confined Space. The CSPM/ACSPM, with the assistance of industrial hygiene or safety personnel as necessary, shall evaluate each space to determine whether it is a permit required confined space (PRCS) per references 27-1 and 27-2. The CSPM/ACSPM shall maintain a current inventory of all PRCSs.

b. Prevention of Unauthorized Entry. Responsible supervisors shall prevent unauthorized entry using the guidance contained in reference 27-2.

c. Comprehensive Hazard Evaluation. CSPM/ACSPM shall evaluate factors prior to entry into a confined space. Such evaluations shall include the following:

Initial Atmospheric Testing. Prior to entry into a PRCS containing a potentially hazardous atmosphere, the CSPM/ACSPM shall test the space following the procedures outlined in reference 27-2. Based on the results of such testing, the CSPM/ACSPM shall take the appropriate precautions per reference 27-2.

NOTE: The CSPM/ACSPM shall ensure that appropriate instruments are available to perform the atmospheric testing.

d. Issuance of Confined Space Entry Permits. If entry into a PRCS is required, the entry supervisor of personnel requiring

entry shall request a permit from the CSPM/ACSPM. All requests and permitting will follow the guidelines of reference 27-1 and 27-2. Appendix 27-A-1 shall be used as COMNAVREG SW's entry permit.

e. Training and Qualifications

(1) The CSPM and ACSPM shall successfully complete course number A-493-0030, Confined Space Safety conducted by the Naval Occupational Safety and Health and Environmental Training Center (NAVOSHENVTRACEN) or equivalent. The CINCPACFLT Safety Manager must approve equivalent training. Keep verification of such training on file along with the written appointment to the position. The ACSPM(s) and Qualified Person (QP)(s) shall receive at least eight (8) hours of initial classroom instruction, eight (8) hours of On-the-Job-Training (OJT), and two (2) hours of annual refresher training.

NOTE: Persons who qualify as Navy Maritime Ashore Gas Free Engineers or Technicians, per the provisions of reference 27-3, may serve as non-maritime ashore CSPMs or ACSPM, respectively.

(2) All attendants, entrants and entry supervisors shall receive training per reference 27-2.

(3) Customer activities requiring personnel to enter into and work inside of confined spaces shall include such duties formally in their position description and personnel records. Activities shall also require these workers to receive a preplacement physical examination based upon the physical requirements for the job and the potential exposure. Annual examinations will be given if the physical requirements for the job support them and when industrial hygiene evaluations deem them necessary. A termination examination will be given upon termination of employment or reassignment to other duties.

f. Program Evaluation. The Regional Safety Manager shall make, or cause to be made, an evaluation of the Confined Space Entry (CSE) Program following any mishap or other incident and at least annually to ensure that the activity is conducting all aspects of the program properly.

NOTE: See also reference 27-3 for guidance on safety requirements for confined spaces.

2703. Requirements for Confined Space Entry and Work. In addition to the hazard evaluation, the following requirements and restrictions also apply:

a. Personal Protective Clothing and Equipment. The CSPM/ACSPM, in coordination with a safety specialist and/or industrial hygienist, shall determine the requirements for appropriate personal protective clothing and equipment. See Chapters 15 and 20 of this instruction for specific requirements. The CSPM/ ACSPM shall list required clothing and equipment on the entry permit. Per reference 27-2, for all vertical penetrations greater than five feet, the entrant shall wear a chest or full body harness attached to a mechanical retrieval device or a fixed point. The CSPM/ACSPM shall ensure that responsible entry supervisors train all confined space entry personnel in the proper use of personal protective clothing and equipment.

b. Preparation of Spaces

(1) Protection from External Hazards. Entry supervisors shall take appropriate measures to isolate the space from hazards per reference 27-2.

(2) Ventilation. When atmospheric testing and/or the nature of operations that customer activities conduct within the space make it necessary, the CSPM/ACSPM shall require ventilation of all PRCS confined spaces per reference 27-2.

(3) Space Cleaning. It is often necessary to clean the interior of a confined space before certain work can be accomplished. Agents used during the cleaning process may be hazardous. Also, cleaning may disturb residues and sludges in some spaces, releasing toxic or flammable gases. References 27-4 and 27-5 prescribe specific instructions for cleaning fuel storage tanks.

2704. Special Precautions for Specific Operations

a. Hot Work is defined as work involving open flames; cutting and welding using open flames or electric arcs; grinding, buffing or open unguarded sources of ignition. The provisions of Chapter 5 of reference 27-6 apply to all hot work activities performed in confined spaces and hot work performed on closed structures or containers such as pipes, drums, ducts, tubes and similar items.

b. Aircraft Fuel Cell Repair. Reference 27-7 prescribes safety precautions relative to maintenance and repair of aircraft fuel cells, which involve entry into or work on confined spaces. If the CSPM/ACSPM oversees aircraft fuel cell entry, he/she shall complete the formal training stated in reference 27-7.

2705. Emergency Rescue Procedures The CSPM/ACSPM, in coordination with cognizant line managers, shall prepare a written emergency plan to cover confined space entries under their control. The confined space rescue team shall perform one practice rescue per calendar year and maintain records of such rehearsals and critiques for one year. Rescue plans and procedures shall incorporate the requirements of reference 27-2.

2706. Contractor Operations. Where contractors are performing work at Navy shore installations, reference 27-2, 27-8, or 27-9 apply depending on whether their work or operations are shore, or maritime-related. In addition, activities shall observe the following provisions:

a. The appropriate laws and regulations make no provision for Navy personnel to neither issue permits for contractor operations nor authorize contractors to use government owned and controlled equipment to evaluate confined spaces. Performance of such functions may involve assumption of liability by the Navy in the event of a mishap. Therefore, COMNAVREG SW will not certify spaces, permit contractor to use government owned and controlled equipment to evaluate confined spaces, or issue confined space entry permits for contractor operations or personnel, except where failure to do so would create an extreme emergency and would endanger personnel and property, and may, therefore, cause even greater potential liability. The Assistant Chief of Staff (ACOS) for Safety shall authorize such cases and the CSPM/ACSPM shall personally conduct and supervise them. Where the nature of the emergency is so extreme that delays created by seeking the ACOS for Safety's approval would create greater danger, the CSPM shall follow the guidance in reference 27-1.

NOTE: Government owned and controlled equipment is equipment that has been issued to, and is in the possession of a Federal government organization. Equipment that is government owned but issued or transferred to, and is in the possession of a contractor, per provisions of the contract, is not included in the exclusions of this paragraph.

b. Where Navy and contractor personnel are to occupy the same space at the same time, the CSPM/ACSPM and the appropriate contractor representative shall issue separate permits. The CSPM/ACSPM shall inform the contractor of the Navy findings, and the contractor shall present his/her findings to the Navy CSPM/ACSPM, as appropriate. However, the contracting officer shall inform the contractor that the contractor retains legal obligation for the safety of contractor personnel.

NOTE: Navy personnel cannot make an entry or perform hot work based upon a National Fire Protection Association (NFPA) Certified Marine Chemist or competent person certification written for contractor operations.

c. In all cases involving contractor operations, the contracting officer shall inform the appropriate contractor that the contractor's confined space entry personnel shall be adequately qualified and the contractor shall conduct all operations under all other statutory or regulatory requirements, since Navy personnel, ships, and facilities may also be at risk.

2707. Responsibilities

a. Regional Safety Manager. Shall appoint, in writing, Confined Space Program Manager (CSPM) consistent with the requirements of this chapter and references 27-1 and 27-2. As the workload requires, the Regional Safety Manager may also appoint ACSPMs to assist the CSPM.

b. Confined Space Program Manager. The CSPM, or an ACSPM in the event the CSPM is absent, is responsible for implementing the activity CSE program consistent with the requirements of this chapter. The CSPM shall assign duties and responsibilities specific to the training provided to ACSPMs. The CSPM shall certify and designate QPs to perform certain tasks.

c. Line Manager. Management personnel shall ensure that:

(1) Confined spaces under their control are identified and properly evaluated by the CSPM/ACSPM under the direction of the CSPM/ACSPM, prior to commencement of operations within the space.

(2) Label those confined spaces that are designated as PRCS.

(3) Establish Standard Operating Procedures (SOPs) for each space designated as PRCS.

(4) Ensure the provisions, procedures, and requirements of this chapter are fully met.

d. Entry Supervisor. Entry supervisors shall be familiar with the provisions of this chapter as they relate to personnel or operations under their supervisory control.

NOTE: Entry supervisor is a term used in this chapter that under most circumstances applies to the cognizant worksite supervisor.

Entry supervisors shall act positively to eliminate any potential hazards existing in operations under their control and shall:

(1) Ensure that all employees under their immediate supervision are aware of the hazards associated with confined spaces and the precautions necessary to control such hazards.

(2) Strictly enforce observance of the safety and health requirements of this chapter and the specific instructions the CSPM/ACSPM annotate on entry permits.

(3) Promptly report to cognizant management any unsafe conditions or procedures and, where warranted by the severity of such conditions, cancel the entry permit and cease all operations until corrective action has been accomplished.

(4) Prohibit unauthorized entry into confined spaces under their control.

(5) Ensure personnel are medically fit for such activity; for example, if respiratory protection is required, the requirements of Chapter 15 of this instruction shall apply.

e. Attendants and Entrants. All persons engaging in confined space entry or work are responsible for fully understanding and strictly observing the safety standards, regulations and procedures, and specific instructions from the CSPM/ACSPM on entry permits. Further, attendants and entrants shall:

(1) Report to the entry supervisor any condition, procedure, or equipment they consider unsafe.

(2) Ensure co-workers observe the proper procedures or precautions.

(3) Report to the entry supervisor any injury or evidence of impaired health that may affect the safe performance of duties.

f. Attendants. The CSPM/ACSPM shall determine requirements for attendants during PRCS entries based on his/her assessment of the hazards involved. Attendants are mandatory for all entries into permitted spaces. The CSPM/ACSPM shall annotate the requirement for attendants on the entry permit along with the

names of eligible personnel. In physically remote areas, customer activities shall furnish attendants with radios or other communications equipment to ensure prompt emergency response. Attendants shall:

(1) Remain on the outside of the main opening to the space to monitor the condition of those inside and seek assistance in the event of any emergency.

(2) Warn those inside of any dangers that may arise.

(3) Maintain constant visual or verbal communication with those inside.

(4) Be instructed by the CSPM/ASCPM regarding whom to notify in the event of an emergency and that no rescue attempt involving entry shall be made until designated rescue personnel have arrived.

(5) Not be assigned additional duties.

(6) Attendants must know what hazards entrants will face during entry, be aware of possible behavioral effects of hazard exposure, continuously maintain a count of entrants, and monitor activities inside and outside the space.

(7) Order the evacuation of the space immediately upon detection of any prohibited condition, display of behavioral effect due to hazardous exposure, a situation outside the space that could endanger entrants, or results in entrants' or attendants' being unable to effectively or safely perform all required duties.

(8) Warn unauthorized personnel to stay away from the permitted space, advise any unauthorized personnel who have entered a space to leave immediately, and inform authorized entrants and the entry supervisor if unauthorized persons have entered the space.

g. Entrants. Only personnel authorized by the responsible entry supervisor shall enter a PRCS. The responsible entry supervisor shall also ensure that such personnel are medically fit for such activity; for example, if respiratory protection is required, the requirements of Chapter 15 of this manual shall apply. Entrant personnel shall:

(1) Properly use all required protective and other equipment.

(2) Communicate with the attendant as necessary to enable the attendant to monitor the entrants, and to enable the attendant to alert entrants of the need to evacuate as required.

(3) Alert the attendant whenever a warning sign or symptom of exposure to a dangerous situation is recognized or if a prohibited situation is detected.

(4) Exit from the permitted space as quickly as possible whenever an order to evacuate is given by the attendant or supervisor, any warning sign or symptom of exposure to a dangerous situation is recognized, a prohibited condition is detected, or an evacuation alarm is activated.

h. Regional Safety, Occupational Health, and Fire Protection Managers. Shall coordinate their respective programs with the CSPM/ACSPM and provide assistance in the evaluation and control of confined space hazards.

CHAPTER 27

REFERENCES

- 27-1 OPNAVINST 5100.23 (Series), Navy Occupational Safety and Health (NAVOSH) Program, Chapter 27
- 27-2 29 CFR 1910.146, Permit Required Confined Spaces
- 27-3 American National Standards Institute (ANSI), American National Standard, ANSI Z117.1-1989, Safety Requirements for Confined Spaces (NOTAL)
- 27-4 NAVFAC Guide Specification 13219A, Cleaning Petroleum Storage Tanks (NOTAL)
- 27-5 American Petroleum Institute (API) Instruction 2015, Cleaning Petroleum Storage Tanks, 3rd edition, September 1985(NOTAL)
- 27-6 NAVSEA S6470-AA-SAF-010, Gas Free Engineering Program (NOTAL)
- 27-7 NAVAIR 01-1A-35, Aircraft Fuel Cells and Internal/External Tanks (NOTAL)
- 27-8 29 CFR 1926, Safety and Health Regulations for Construction
- 27-9 29 CFR 1915, Subpart B, Explosives and other Dangerous Atmospheres (NOTAL)

APPENDIX 27-A

CONFINED SPACE ENTRY PERMIT

DATE OF PERMIT:			EXPIRATION DATE/TIME:		
LOCATION:			DESCRIPTION:		
PURPOSE OF ENTRY: (Operations to be conducted)					
AUTHORIZED ENTRANTS:			AUTHORIZED ATTENDANTS:		
ATMOSPHERIC TEST DATA					
TEST	PRE-ENTRY	FOLLOW-UP			
Oxygen Content					
Explosive (%LEL)					
Toxins (Specify)					
Tested by:	Date/Time:				
INSTRUMENT	MODEL	SERIAL NO.	CALIBRATION DATE	COMMENTS (Hazard of Permit Space)	
REQUIRED SAFETY PRECAUTIONS					
REQUIREMENT	YES	NO	SPECIFICS		
Attendant					
Respiratory Protection					
Protective Clothing					
Protective Clothing					
Protective Equipment					
Rescue Equipment					
Lockout/Tagout					
Ventilation					
Follow-up Testing					
Other Controls (specify)					
Communication Practices					
EMERGENCY CONTACT::			PHONE		
OTHER COMMENTS:					
ENTRY SUPERVISOR'S SIGNATURE:			CONFINED SPACE PROGRAM MANAGER'S (OR QUALIFIED PERSON'S) SIGNATURE		

:

CHAPTER 28

BLOODBORNE PATHOGENS

2801. Discussion. The principal bloodborne pathogens of concern are human immuno-deficiency virus (HIV), hepatitis B virus (HBV), and hepatitis C virus (HCV). Due to the rapid spread of Acquired Immune Deficiency Syndrome (AIDS), and its precursor HIV, and to counter HBV, the Occupational Safety and Health Administration (OSHA) generated the bloodborne pathogens standard to protect people from occupational exposures to all bloodborne pathogens. The diseases associated with these pathogens are preventable when the appropriate precautions are taken.

2802. Applicability. The provisions of this chapter apply to all customer activities in which workers have occupational exposure to bloodborne pathogens. Hospitals, servicing medical treatment facilities, emergency rescue personnel, enforcement personnel, laboratories working with potential bloodborne pathogens, and all other personnel who can reasonably anticipate to have occupational exposure to bloodborne pathogens.

2803. Hazard Prevention and Control

a. Each activity having workers with occupational exposures to potential bloodborne pathogens shall develop and implement an Exposure Control Plan (ECP) that meets the requirements of reference 28-1. Hospitals, servicing medical treatment facilities, emergency rescue personnel, enforcement personnel, laboratories working with potential bloodborne pathogens and all other customer activities with personnel who can reasonably anticipate to have occupational exposure to bloodborne pathogens fall within this requirement. Appendix 28-1 contains a sample ECP which non-medical customer activities can adapt for this purpose.

b. The ECP shall be reviewed and updated at least annually and whenever necessary to reflect new or modified tasks or procedures.

2804. Responsibilities

a. Program Managers and customer activities shall ensure that where required, an ECP is developed and implemented as required by reference 28-1.

b. The Site Safety Office shall, as applicable, provide guidance, training and assistance in the bloodborne pathogen program per reference 28-2.

c. Medical shall, per reference 28-2, review and provide technical guidance on the medical aspect of the bloodborne pathogens program.

d. Naval Occupational Safety and Health and Environmental Training Center (NAVOSHENVTRACEN) shall, per reference 28-2, provide required bloodborne pathogen training and materials.

CHAPTER 28

REFERENCES

- 28-1 29 CFR 1910.1030, Bloodborne Pathogens
- 28-2 OPNAVINST 5100.23 (Series), Navy Occupational Safety and Health (NAVOSH) Program Manual

APPENDIX 28-A

NON-MEDICAL BLOODBORNE PATHOGENS
EXPOSURE CONTROL PLAN

1. Purpose. This Exposure Control Plan (ECP) is implemented to meet the letter and intent of the Occupational Safety and Health Administration's (OSHA) Bloodborne Pathogens Standard. This ECP is COMNAVEGSW activities' written policy to prevent or reduce the risk of personnel occupationally contracting Hepatitis B Virus (HBV), Human Immuno-deficiency Virus (HIV), and other bloodborne diseases and can be tailored to the individual activity. The ECP sets forth procedures, engineering controls, personal protective equipment, work practices and other methods designed to protect employees, and meets requirements stipulated in the OSHA Bloodborne Pathogens Standard.

2. Applicability. Affected personnel are encouraged to study all provisions of this ECP. Any questions or comments should be directed to the Site Safety Manager. The input and involvement of all affected personnel is needed to ensure this ECP continues to provide adequate workplace safety. This ECP will be subject to at least annual review and revision as needed. Paragraph 12 contains a formatted section that can be used to document this annual review.

3. Definitions

a. Biohazard Label. A label affixed to containers of regulated waste, refrigerator/freezers and other containers used to store, transport or ship blood and other potentially infectious materials. The label must be fluorescent orange-red in color with the biohazard symbol and the biohazard on the lower part of the label.

b. Blood. Human blood, human blood components and products made from human blood.

c. Bloodborne Pathogens. Pathogenic microorganisms that are present in human blood and can cause disease in humans. These pathogens include, but are not limited to, Hepatitis B Virus (HBV) and Human Immuno-deficiency Virus (HIV).

d. Contaminated. The presence or the reasonably anticipated presence of blood or other potentially infectious materials on an item or surface.

e. Contaminated Laundry. Laundry which has been soiled with blood or other potentially infectious materials or may contain sharps.

f. Contaminated Sharps. Contaminated objects that can penetrate the skin including, but not limited to needles, scalpels and broken glass.

g. Decontamination. The use of physical or chemical means to remove, inactivate, or destroy bloodborne pathogens on a surface or item to the point where they are no longer capable of transmitting infectious particles and the surface or item is rendered safe for handling, use or disposal.

h. Employee. An individual employed in an industrial or other facility or operation who may be exposed to bloodborne pathogens in the course of their assignments.

i. Exposure Control Officer. An employee who is designated by the employer, and who is qualified by training or experience, to provide technical guidance in the development and implementation of the facility's Exposure Control Plan.

j. Exposure Incident. A specific eye, mouth, other mucous membrane, non-intact skin, or parenteral contact with blood or other potentially infectious materials that results from the performance of an employee's duties.

k. Handwashing Facilities. A facility providing an adequate supply of running potable water, soap and single use towels or hot air drying machines.

l. HBV. Hepatitis B Virus, a disease which can produce a mild to chronic infection, liver damage such as cirrhosis, liver cancer or death due to liver failure.

m. HIV. Human Immuno-deficiency Virus, the precursor to the Acquired Immuno-deficiency Syndrome (AIDS). AIDS results in the breakdown of the immune system, so the body does not have the ability to fight off other diseases. Currently no vaccination exists to prevent infection of HIV, and there is no known cure.

n. Medical Consultation. A consultation which takes place between an employee and a licensed medical professional for the purpose of determining the employee's medical condition resulting from exposure to blood or other potentially infectious materials, as well as any further evaluation or treatment that is required.

o. NIOSH. National Institute for Occupational Safety and Health of the Public Health Service, of the Department of Health and Human Services; the federal agency which assists OSHA in occupational safety and health investigations and research.

p. Occupational Exposure. Reasonably anticipated skin, eye, mucous membrane or parenteral contact with blood or other potentially infectious materials that may result from the performance of an employee's duties.

q. OSHA. Occupational Safety and Health Administration of the U.S. Department of Labor; the federal agency with safety and health regulatory and enforcement authorities for most U.S. industry and business.

r. Other Potentially Infectious Materials (OPIM)

(1) The following human body fluids: semen, vaginal secretions, cerebrospinal fluid, amniotic fluid, saliva in dental procedures, any body fluid that is visibly contaminated with blood, and all body fluids in situations where it is difficult or impossible to differentiate between body fluids;

(2) Any unfixed tissue or organ (other than intact skin) from a human (living or dead); and

(3) HIV containing cell or tissue cultures, organ cultures and HIV or HBV containing culture medium or other solutions; and blood, organs or other tissues from experimental animals infected with HIV or HBV.

s. Percutaneous. Piercing mucous membrane or the skin barrier through such events as needle sticks, human bites, cuts, and abrasions.

t. Personal Protective Equipment. Specialized clothing or equipment worn by an employee for protection against a hazard. General work clothes (e.g. uniforms, scrub suits, pants, shirts or blouses) not intended to function as a protection against a hazard are not considered to be personal protective equipment.

u. Production Facility. A facility engaged in industrial-scale, large-volume or high-concentration production of HIV or HBV.

v. Regulated Waste. Liquid or semi-liquid blood or other potentially infectious materials; contaminated items that would release blood or other potentially infectious items that are caked with dried blood or other potentially infectious materials

and are capable of releasing these materials during handling; contaminated sharps; and pathological and microbiological wastes containing blood or other potentially infectious materials.

w. Sterilize. The use of a physical or chemical procedure to destroy all microbial life including highly resistant bacterial endospores.

x. Universal Precautions. An approach to infection control. According to the concept of Universal Precautions, all human blood and certain human body fluids are treated as if known to be infectious for HIV, HBV and other bloodborne pathogens.

y. Work Practice Controls. Controls that reduce the likelihood of exposure by altering the manner in which a task is performed.

4. Exposure Determination. For the following job classifications it is reasonable to anticipate occupational exposure to bloodborne pathogens while performing certain jobs or tasks in this facility.

JOB TITLE	PROCEDURES	LOCATION

5. Engineering Controls

a. Whenever possible, engineering controls will be utilized to reduce potential exposure. Listed below are controls presently utilized in this facility (not applicable if left blank):

CONTROL	LOCATION	MAINTENANCE INSTALLATION DATE	DUE DATE

CONTROL	LOCATION	MAINTENANCE INSTALLATION DATE	DUE DATE

b. Required Work Practices (General)

(1) Affected personnel shall wash their hands immediately or as soon as possible after removal of gloves or other personal protective equipment and after hand contact with blood or OPIM.

(2) All personal protective equipment shall be removed immediately upon leaving the work area (or as soon as possible) if overtly contaminated, and placed in an appropriately designated area or container for storage, washing, decontamination or disposal.

(3) Used needles and other sharps shall not be sheared, bent, broken, recapped or resheathed by hand. Used needles shall not be removed from disposable syringes. Recapping is permitted only if no other alternative is feasible and shall be done using an approved mechanical device or one-handed technique.

(4) Eating, drinking, smoking, applying cosmetics or lip balm and handling contact lenses is prohibited in work areas where there is a potential for occupational exposure.

(5) Food and drink shall not be stored in refrigerators, freezers, or cabinets where blood or OPIM are stored or in areas of possible contamination.

(6) All procedures involving blood or OPIM will be done in a manner that minimizes splashing, spraying, and aerosolization of these substances.

(7) Mouth pipetting/suctioning is prohibited.

(8) If conditions are such that hand-washing facilities are not available, antiseptic hand cleaners are to be used. Because this is an interim measure, employees are to wash hands at the first available opportunity.

(9) The following hygienic work practices will also apply (not applicable if left blank):

c. Personal Protective Equipment

(1) Where there is potential for occupational exposure, affected personnel will be provided and required to use personal protective equipment including gloves, one way breathing valves and overalls. This equipment shall be provided at no cost to personnel. When necessary, hypoallergenic, powderless or other alternative gloving shall be provided to those personnel who are allergic to types normally provided.

(2) Supplies may be obtained through worksite immediate supervisors.

(3) Single use (disposable) gloves may not be decontaminated or washed for reuse.

(4) Prior to leaving the work area, personal protective equipment shall be removed and properly disposed of or placed into designated storage or laundry areas. Personnel are not permitted to carry any type of personal protective equipment home for cleaning or other use.

(5) Personal protective equipment shall be considered "appropriate" only if it does not permit blood or OPIM to pass through or contact the clothing, skin, mouth or mucous membranes.

(6) Listed below are types of personal protective equipment available for use and circumstances under which it shall be used (not applicable if left blank):

ITEM	PROCEDURE

(7) Decontamination of personal protective equipment shall be performed in the following manner (not applicable if left blank):

EQUIPMENT	CLEANER/DISINFECTANT FREQUENCY

6. Housekeeping

a. Work surfaces shall be decontaminated with an appropriate disinfectant after completion of a procedure, when surfaces are overtly contaminated, immediately after any spill or blood or OPIM or at the end of the work shift if it can be reasonably determined that there was contamination.

b. Protective Coverings

(1) Protective coverings such as plastic wrap, aluminum foil, or imperviously backed absorbent paper may be used to cover equipment and environmental surfaces.

(2) These coverings shall be removed and replaced as necessary (i.e., upon contamination, at the end of the workday).

c. Equipment. Equipment that may become contaminated with blood or OPIM will be checked routinely and prior to servicing or shipping and shall be decontaminated as necessary.

d. Receptacles

(1) All bins, pails, cans and similar receptacles intended for reuse which have potential for becoming contaminated with blood or OPIM shall be inspected, cleaned and disinfected immediately or as soon as possible upon visible contamination.

(2) A regular cleaning schedule will be established and addressed elsewhere in this program.

e. Glassware

(1) Broken glassware that may be contaminated shall not be picked up directly with the hands.

(2) Broken glassware shall be cleaned up using mechanical means such as a brush and dust pan, tongs or forceps.

f. Specimens

(1) Specimens of blood or OPIM shall be placed in a closable, leak proof container labeled or color-coded according to OSHA requirements prior to being stored or transported.

(2) If outside contamination of the primary container is likely, then a second leak proof container that is labeled or color-coded (again, per OSHA specifications) shall be placed over the first and closed to prevent leakage during handling, storage or transport.

(3) If puncture of the primary container is likely, it shall be placed within a leak proof, puncture-resistant secondary container.

g. Reusable. Reusable items contaminated with blood or OPIM shall be documents prior to washing and/or reprocessing.

h. Responsibilities

(1) It is the responsibility of the work site supervisor to assure that the work site is maintained in a clean and sanitary condition. Facilities shall be cleaned and disinfected with an appropriate agent immediately following procedures involving bloodborne pathogens or OPIM.

(2) In areas where operations are continuous, a work schedule for cleaning is established as follows (not applicable if left blank):

LOCATION	EQUIPMENT	CLEANER/DISINFECTANT FREQUENCY

7. Waste Disposal.

a. All infectious wastes destined for disposal shall be placed in closable, leak-proof containers or bags that are color coded or labeled as herein described.

b. It shall be the responsibility of the work site supervisor to assure that waste is properly eliminated and the following rules are observed.

(1) If outside contamination of the container or bag is likely to occur, then a second leak-proof container or bag that is closable and labeled or color-coded (as per OSHA specifications) will be placed over the outside of the first and closed to prevent leaks during handling, storage and transport.

(2) Immediately after use, sharps shall be disposed of in closable, puncture resistant, disposable containers that are leak proof on the sides and bottom and that are labeled or color-coded, per OSHA specifications.

(3) These containers shall be easily accessible to personnel and located in the immediate area of use.

(4) These containers will be replaced routinely and not allowed to overfill. Employees shall not have to insert hands into the container in order to dispose of a sharp.

(5) When moving containers of sharps from the area of use they shall be closed immediately prior to removal or transport.

(6) Reusable containers may not be opened, emptied or cleaned manually or in any other manner which would pose the risk of percutaneous injury.

(7) Disposal of contaminated personal protective equipment will be provided at no cost to personnel.

(8) The preceding disposal procedures shall be observed in accordance with applicable Federal, state and local regulations concerning medical waste.

8. Laundry.

a. Laundry that has been contaminated with blood or OPIM or may contain contaminated sharps shall be handled as little as possible and with a minimum of agitation.

b. Contaminated laundry shall be bagged at the location where it was used and shall not be sorted or rinsed in patient care areas.

c. Contaminated laundry shall be placed and transported in bags that are labeled or color-coded as herein described. Whenever this laundry is wet and presents the potential of soaking or leaking through the bag, it shall be placed and transported in leak proof bags.

d. Personnel responsible for handling potentially contaminated laundry are required to wear protective gloves and other appropriate personal protective equipment to prevent occupational exposure during handling or sorting.

e. Laundering of personal protective equipment is to be provided at no cost to personnel.

f. If laundry is shipped offsite to a second facility which does not utilize universal precautions in its handling of all laundry, bags or containers with appropriate labeling and/or color-coding shall be used to communicate the hazards associated with this material.

g. Workplace supervisors are responsible for ensuring the proper handling, storage, shipping or cleaning of contaminated laundry.

h. Additional requirements pertaining to the handling of laundry are as follows (not applicable if left blank):

9. Communication of Hazards to Personnel

a. Signs

(1) Signs will be posted at the entrance in the following areas (not applicable if left blank):

WORK AREA	PROCEDURE

(2) Signs will bear the Biohazard symbol described in the OSHA standard for bloodborne pathogens.

b. Labels

(1) Warning labels shall be affixed to containers of infectious waste; refrigerators and freezers containing blood and OPIM; and other containers used to store or transport blood or OPIM except as provided below.

(2) Labels shall bear the legend described in the OSHA standard for bloodborne pathogens. They shall be fluorescent orange or orange-red or predominantly so, with lettering or symbols in a contrasting color.

(3) All labels shall be an integral part of the container or will be affixed as close as safely possible to the container by string, wire, adhesive or any other method that prevents their loss or unintentional removal.

(4) Red bags or red containers may be substituted for labels on containers of infectious waste.

(5) The work site supervisor is responsible for ensuring that containers or biohazardous waste are properly labeled.

c. Information and Training

(1) All personnel with occupational exposure to bloodborne pathogens shall participate in a training program at the time of their initial assignment and at least annually thereafter. This training shall be free of charge and scheduled during working hours. The training may be performed by activity personnel with the approval of the Site Safety Office or scheduled directly through the Site Safety Office.

(2) The person(s) responsible for providing or scheduled this training and coordinating the program is/are:

(3) At the end of each training session, personnel will acknowledge their participation in the program by signing a training form, an example of which may be found in Attachment A to this appendix.

(4) Personnel shall receive training and information in the following areas:

(a) A copy of this standard and an explanation of its content;

(b) A general explanation of the epidemiology and symptoms of bloodborne diseases;

(c) An explanation of modes of transmission of bloodborne pathogens;

(d) An explanation of the Exposure Control Plan and where you may obtain a copy.

(e) An explanation of the appropriate methods for recognizing tasks and procedures that may involve exposure to blood or OPIM;

(f) An explanation of the use and limitations practices that will prevent or reduce exposure, including appropriate engineering controls, work practices, and personal protective equipment;

(g) Information on personal protective equipment that shall address type available, proper use, location, removal, handling, decontamination and/or disposal.

(h) An explanation of the basis for selection of personal protective equipment.

(i) Information on the hepatitis B vaccine, including information on its efficacy, safety and the benefits of being vaccinated;

(j) Information on the appropriate actions to take and persons to contact in the event of an emergency.

(k) Procedures to follow if an exposure incident occurs, including method of reporting the incident;

(l) Information on the medical follow-up that will be made available and on medical counseling provided to exposed personnel;

(m) An explanation of signs, labels and/or color-coding; and

(n) A question and answer session with the trainer.

10. Medical Surveillance.

a. General Information

(1) Any individual who may be exposed to potentially infectious materials shall be offered at no cost, a vaccination for hepatitis B, unless a previous vaccination or antibody testing reveals immunity.

(2) If the vaccination is declined, a waiver form shall be signed. A copy of this is found in Attachment A to Appendix 28-A.

b. Post Exposure Procedures

(1) Should an exposure occur to a potentially infectious material (via needle stick, splash, etc.), a post-exposure medical evaluation shall be conducted as described herein.

(2) Following a report of an exposure incident, a confidential medical evaluation and follow-up shall be conducted, including:

(a) Documentation of the route(s) of exposure, HBV and HIV antibody status of the source individual's blood (if known), and the circumstances under which the exposure occurred.

(b) If the source individual can be determined and permission obtained, collection and testing of the source individual's blood to determine the presence of HIV or HBV infection.

(c) Collection of blood from the exposed employee as soon as possible after the exposure incident for determination of HIV/HBV status. Actual antibody or antigen testing of the blood or serum sample may be done at that time or at a later date, if requested by the exposed individual. Samples shall be preserved for at least 90 days.

(d) Follow-up of the exposed individual including anti-body or antigen testing, counseling, illness reporting, and safe and effective post-exposure prophylaxis, according to standard recommendations for medical practices.

c. Information Supplied to Medical. The attending health care professional shall be provided the following information:

(1) A copy of 29 CFR 1910.1030 and its appendices;

(2) A description of the affected individual's duties as they relate to occupational exposure;

(3) Results of the source individual's blood testing, if available; and

(4) All pertinent medical records, including vaccination records, relevant to the exposed individual.

d. Health Care Professional's Report. The attending health care professional shall provide a written opinion to the individual's command concerning the following:

(1) The health care professional's recommended limitations upon the exposed individual's ability to receive the hepatitis B vaccination.

(2) A statement that personnel have been informed of the results of the medical evaluation and have been told about any medical conditions resulting from exposure to blood or OPIM which require further evaluation or treatment.

(3) Specific findings or diagnoses which are related to the individual's ability to receive the HBV vaccination. Any other findings and diagnoses shall remain confidential.

e. Report to Exposed Individual. For each evaluation under this section, the exposed individual shall be provided a copy of the attending health care professional's written opinion within 15 days of the completion of the evaluation.

11. Recordkeeping.

a. Medical Records. Medical records shall be kept for the length of the worker's employment plus 30 years in accordance with 29 CFR 1910.1030. Records shall be maintained at the designated servicing medical treatment facility supporting the command or activity or transferred to the archives according to current regulations.

b. Training Records

(1) Training records shall be kept for three years.

(2) These records shall be maintained in the Safety Office.

(3) A copy of the training record should be forwarded to the Safety Manager for compliance monitoring of the program.

12. Annual review of the Exposure Control Plan

a. An annual review of this ECP is required by the OSHA Bloodborne Pathogens Standard. Changes, whether additions or deletions, have been annotated herein.

b. Absent other documentation of an annual review, the following constitutes documentation of an annual review of this ECP:

RECORD OF ANNUAL REVIEW OF ECP

REVIEW CONDUCTED BY	DATE	INITIALS

**BLOODBORNE PATHOGEN TRAINING AND HBV VACCINATION SERIES
DECLINATION/ACCEPTANCE FORM**

NAME (Last, First, Middle): _____

SSN: (Last Four): _____ **Rate/Grade:** _____

On _____ (**Date**), I attended training on Bloodborne Pathogens. Topics covered in this training included:

- a. A copy of 29 CFR 1910.1030 (Bloodborne Pathogen Standard) and an explanation of its content;
- b. A general explanation of the epidemiology and symptoms of bloodborne diseases;
- c. An explanation of modes of transmission of bloodborne pathogens;
- d. An explanation of the Exposure Control Plan and where I may obtain a copy;
- e. An explanation of the appropriate methods for recognizing tasks and procedures that may involve exposure to blood or other potentially infectious material (OPIM);
- f. An explanation of the use and limitations of practices that will prevent or reduce exposure, including appropriate engineering controls, work practices and personal protective equipment; Information on personal protective equipment which shall address types available, proper use, location, removal, handling decontamination and/or disposal;
- g. An explanation of the basis for selection of personal protective equipment;
- h. Information on the Hepatitis B vaccine, including information on its efficacy, safety and the benefits of being vaccinated;
- i. Information on the appropriate actions to take and persons to contact in the event of an emergency;
- j. Procedures to follow if an exposure incident occurs, including method of reporting the incident;
- k. Information on the medical follow-up that will be made available and on the medical counseling provided to the exposed personnel;
- l. An explanation of signs, labels and/or color-coding;
- m. A question and answer session with the trainer.

EMPLOYEE SIGNATURE:

IF DECLINING THE HBV VACCINATION SERIES, PLEASE SIGN BELOW:

I understand that due to my occupational exposure to blood or other potentially infectious material, I may be at risk of acquiring Hepatitis B virus (HBV) infection. I have been given the opportunity to be vaccinated with Hepatitis B vaccine, at no charge to me. However, I decline Hepatitis B vaccination at this time. I understand that by declining the vaccine, I continue to be at risk of acquiring Hepatitis B, a serious disease. If in the future, I continue to have occupational exposure to blood or other potentially infectious materials and I want to be vaccinated with Hepatitis B vaccine, I can receive the vaccination series at no charge to me.

EMPLOYEE SIGNATURE: _____ **Date:** _____

**SUPERVISOR, TRAINER,
OR MEDICAL REPRESENTATIVE SIGNATURE:**

CHAPTER 29

OCCUPATIONAL REPRODUCTIVE HAZARDS

2901. Discussion. Establish the Occupational Reproductive Hazard Program. The term reproductive hazard as used in this Chapter include workplace stressors (chemical, biological, physical) which affect both men and women and may cause infertility or reproductive problems. Protecting the reproductive health and procreative capacity of working men and women is important for two basic reasons:

- a. It safeguards the health of future generations.
- b. It is important to the individual well being.

2902. Background.

a. Since antiquity, certain chemical and physical agents have been recognized as having detrimental effects on human reproduction. For example, the Romans noted the effect of industrial lead poisoning in inducing abortions. However, reproductive disorders, including infertility and birth defects, are relatively common occurrences and their specific causes remain largely unknown.

b. Epidemiology and toxicology research into the reproductive effects of occupational exposures is in its infancy and the extent to which occupational exposures contribute to reproductive disorders is largely unknown. Consequently, current Occupational Safety and Health Administration (OSHA) regulations do not address all reproductive health hazards.

c. Most workplace programs and policies for the management of reproductive risks must be made within the context of two Federal statutes:

(1) The Occupational Safety and Health (OSH) Act, which gives the Federal Government the authority to protect workers to the extent feasible from exposure to stressors that could damage their general health and reproductive systems.

(2) Title VII of the Civil Rights Act, which forbids employment discrimination on the basis of sex or pregnancy.

d. Three additional major statutes, which potentially apply to occupational reproductive hazards, are:

- (1) The Toxic Substances Control Act (TSCA).

(2) The Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA).

(3) The Atomic Energy Act (AEA).

e. Reference 29-1 provides occupational medical personnel guidance on recommended procedures and approaches for the effective management of reproductive hazards in the work place. This manual identifies some specific chemical, biological, and physical reproductive hazards and stresses the necessity of thorough, cooperative workplace evaluations for reproductive hazards so that they can be eliminated or minimized. The manual also recognizes that appropriate medical surveillance and counseling regarding any risks to health, including reproductive health, must be provided for employees exposed to any remaining hazards.

2903. Requirements

a. General

(1) Identification, evaluation, and management of reproductive hazards and implementation of appropriate control measures are included as a part of the occupational health program.

(2) Specific supervisory or employee concerns or requests regarding reproductive hazards in the workplace shall be reported to the Safety Office. The employee/supervisor shall complete (with assistance, if needed) Appendix 29-B which will be submitted to the servicing medical treatment facility clinic.

(3) Commands will make every effort to accommodate a change in duties or assignments of employees with valid pregnancy or fertility concerns of reproductive hazards, which have been investigated and evaluated with positive results.

(4) Federal regulations prohibit discrimination in employment on the basis of pregnancy, childbirth, or related medical conditions. Women affected by pregnancy and related conditions will be treated the same as other employees on the basis of their ability or inability to work. If a female employee is temporarily unable to perform the functions of her position because of her pregnancy related condition, the Command will treat her in the same manner that it treats other temporarily disabled employees, such as by providing modified tasks, alternative assignments, or disability leave.

b. Specific

(1) OSHA regulations addressing reproductive hazards have been issued for lead, ethylene oxide and 1,2-dibromo-3-chloropropane (DBCP). Applicable requirements are:

(a) The requirements for lead work are contained in Chapter 21 of this Manual.

(b) Upon request by an employee, the servicing medical treatment facility will perform medical examinations and consult with individuals who desire medical advice concerning the effects of past or present exposures to ethylene oxide on the ability to produce a healthy child.

(c) DBCP use is banned in the United States. In an emergency situation, medical evaluations will be performed for employees who have been subjected to exposures.

(2) Information and training concerning adverse health effects of stressors, including effects on the human reproductive system and on the fetus, as well as the measures that employees can take to protect themselves will be provided as part of the Safety Training Program.

(3) Training records and the retention of the records shall be in accordance with Chapter 6 of this manual.

2904. Responsibilities

a. Safety Office shall:

(1) Ensure that all supervisors are cognizant of all items in appendix 29-A utilized at the command. Servicing medical treatment facilities and commands with hospital units shall utilize the list in reference 29-1.

(2) Maintain exposures of all personnel to reproductive hazards below applicable standards where available or below limits that occupational health professional recommend where no standards are yet established.

b. Medical:

(1) Servicing medical treatment facilities including contract facilities shall question all patients, especially pregnant women, seen at the facility regarding their, and their spouses' potential exposure to developmental hazards. The Navy

recommends referral to occupational medicine for evaluation if activities determine there is a possibility of exposure.

(2) Implement all medical procedures, provide assistance in resolving employee questions or concerns relative to reproductive hazards.

(3) Provide post exposure medical evaluations.

(4) Maintain all medical records related to reproductive hazard management.

c. Supervisors shall ensure employee questions or concerns regarding reproductive hazards are investigated and resolved in accordance with the requirements in this Chapter. Provide training to employees concerning the importance of occupational reproductive hazards. Upon notification of pregnancy, ensure that female workers complete the questionnaire in appendix 29-B. Prepare, maintain, and coordinate implementation of all aspects of the reproductive hazards control program.

d. Employees

(1) Shall attend awareness training and wear any personal protective equipment issued to them for their protection if they are occupationally exposed to reproductive hazards.

(2) Female employees shall inform their Supervisors as soon as possible that they are pregnant and completely fill out the questionnaire contained in Appendix 29-B.

(3) Personnel concerned about the effects of occupational exposures on reproductive functions and pregnant personnel occupationally exposed to reproductive hazards shall be referred for medical evaluation to the servicing medical treatment facility. Complete and submit the questionnaire contained in Appendix 29-B as required.

(4) Additional information and guidance in completing the questionnaire may be obtained from reference 29-1.

CHAPTER 29

REFERENCES

- 29-1 OPNAVINST 5100.23 (Series), Navy Occupational Safety and Program Manual

APPENDIX 29-A
OCCUPATIONAL REPRODUCTIVE
CHEMICAL STRESSORS LIST

Chemical	Class	PEL	TLV	Type of Stressor		
				M	F	D
Acetohydroxamic acid	*	-	-			D
Aminopterin	Insecticide	-	-		F	D
Arsenic	Pesticide	+	+			D
Benomyl	Fungicide	+	+	M		D
Benzene	*	+	+	M		D
Bromoxynil	Herbicide	-	-			D
Cadmium	Metal	+	+	M		D
Carbon disulfide	Solvent	+	+	M	F	D
Carbon Monoxide	*	+	+			D
Chlordecone (Kepone)	Insecticide	-	-			D
Cyanazine	Herbicide	-	-			D
Cycloheximide	Fungicide	-	-			D
Cyhexatin	Insecticide	-	+			D
Dinocap	Insecticide	-	-			D
Dinoseb	Insecticide	-	-	M		D
1,2-Dibromo-3-chloropropane	Nematocide	+ R	-	M		
m-Dinitrobenzene	*	+	+	M		
o-Dinitrobenzene	*	+	+	M		
p-Dinitrobenzene	*	+	+	M		
Epichlorohydrin	Solvent	+	+	M		
Ethylene glycol monoethyl ether	Solvent	+	+	M		D
Ethylene glycol monoethyl ether acetate	Solvent	+	+	M		D
Ethylene glycol monomethyl ether	Solvent	+	+	M		D
Ethylene glycol monomethyl ether acetate	Solvent	+	+	M		D
Ethylene oxide	Sterilizing Agent	+ R	+		F	
Hexachlorobenzene	*	-	+			D
Hydroxyurea	*	-	-			D
LEAD	METAL	+ R	+	M	F	D
Mercury and mercury compounds	Metal	+	+			D
Methyl bromide	Fumigant	+	+			D
Methyl mercury	Organometal	+	+			D
Nickel carbonyl	*	+	+			D

Chemical	Class	PEL	TLV	Type of Stressor		
				M	F	D
Polybrominated biphenyls (PBBs)	*	-	-			D
Polychlorinated biphenyls (PCBs)	*	+	+			D
2,3,7,8-Tetrachloro-dibenzo-para-dioxin (TCDD)	*	-	-			D
Toluene	Solvent	+	+			D
Warfarin	Rodenticide	+	+			D

A = Source for this information is 31 March 1998 Navy
Reproductive Hazards Review Board Meeting

M = Male

F = Female

D = Developmental

* = Unable to classify into a single functional class

PEL = OSHA's permissible exposure limit (PEL)

TLV = ACGIH threshold limit value (TLV)

+ = Exists

- = Does not exist

R = Level considers reproductive effects

Appendix 29-B

**WORKPLACE EXPOSURES OF REPRODUCTIVE CONCERN
JOINT SUPERVISOR'S AND WORKER'S STATEMENT**

The supervisor and the worker are to complete this form at the time of a female worker's confirmed pregnancy or any time a male or female worker is concerned about workplace reproductive hazards

Name		Rank/Rate		Command/Shop	
Brief description of job duties (not job title)					
Supervisor					
CHECK ALL THAT ARE APPROPRIATE					
Workplace:	shipboard	shop	office	outdoors	other
HAZARDS(specify)		WORKER EXPOSED		WORKER IN MED SURVEILLANCE	
CHEMICAL					
Solvents		yes	no	yes	no
Metals		yes	no	yes	no
Pesticides		yes	no	yes	no
Antineoplastics		yes	no	yes	no
Anesthetics		yes	no	yes	no
Other		yes	no	yes	no
PHYSICAL					
Heat		yes	no	yes	no
Nonionizing radiation		yes	no	yes	no
Noise		yes	no	yes	no
Vibration		yes	no	yes	no
BIOLOGICAL(infectious agents)		yes	no	yes	no
OTHER HAZARDS(specify)		yes	no	yes	no
		Yes	no	yes	no
		yes	no	yes	no
		yes	no	yes	no
PERSONAL PROTECTIVE EQUIPMENT REQUIRED:					
none	respirator	gloves	hearing protection	protective clothing	
DATE OF MOST RECENT INDUSTRIAL HYGIENE (IH) SURVEY (Attach if available):					
ATTACH RELEVANT MATERIAL SAFETY DATA SHEETS (MSDS)					
JOB ACTIVITIES/CONDITIONS :					
jumping					
heavy pushing/pulling		climbing		shift or night work	
heavy/repetitive lifting of:		crawling		working at heights	
lbs(weight)		prolonged standing for		hours/day	
times/hour(frequency)		work in hot environment			
OCCUPATIONAL MEDICINE (OM) EVALUATION RECOMMENDED			yes	no	

Worker's Signature _____ Date _____ Supervisor's Signature _____ Date _____

This form must be maintained in the command's occupational safety and health office. If an OM evaluation is recommended, provide a copy of this form to the cognizant OM provider.

CHAPTER 30

INDOOR AIR QUALITY MANAGEMENT

3001. Discussion

a. Poor indoor air quality (IAQ) detracts from the quality of the work environment. Acceptable work environment IAQ results in higher levels of comfort and productivity.

b. Poor IAQ can result from one or more causes including humidity ranges, high carbon dioxide levels, off-gas chemicals (e.g. adhesives, carpeting), tobacco smoke, biological contamination and building modifications.

3002. IAQ Investigation Approach

a. Individuals working in Navy maintained buildings with indications of poor IAQ shall report the problem(s) to their immediate supervisor. The supervisor shall coordinate all contact with the designated facilities maintenance activity (e.g. Public Works Center (PWC)) and the Site Safety Office. If the cause of the problem is unable to be determined, the Site Safety Office shall request the cognizant industrial hygiene service to initiate an IAQ investigation.

b. If the building contains Navy personnel, but is maintained by a private enterprise, the problems(s) shall be reported to the appropriate facilities maintenance organization. If there is no corrective action, the supervisor should contact the Site Safety Office and follow the process described in the preceding paragraph.

3003. Environmental Tobacco Smoke (ETS)

a. Department of Defense mandates smoke-free workplaces per reference 30-1. Smoking is prohibited in all Department of the Navy (DON) vehicles, aircraft and work buildings. It is Navy policy to protect all personnel in working and public living environments from involuntary exposure to ETS.

b. Outdoor areas designated for smoking will not be located in areas commonly used by nonsmokers and will not be in the immediate vicinity of supply air intakes or building entry ways/egresses (doors, windows, etc.).

3004. Responsibilities

a. COMNAVREG SW customer activities shall:

(1) Establish smoke-free buildings and zones.

(2) Coordinate with the Site Safety Office and Naval Facilities Engineering Command (NAVFACENGCOM) to ensure that new building design adheres to requirements contained in reference 30-2, the American Society of Heating, Refrigerating, and Air-Conditioning Engineers (ASHRAE) Standards 55-1981, Thermal Environmental Conditions for Human Occupancy and 62-1992, Ventilation for Acceptable Indoor Air Quality.

(3) Develop and implement an effective program of routine inspections and preventive maintenance of all HVAC systems and spaces per reference 30-2.

(4) Ensure that employee concerns or complaints of IAQ problems are investigated and resolved in a timely manner per reference 30-2.

b. The Site Safety Office shall: Upon notification by the cognizant supervisor of an IAQ complaint, aid in coordination of corrective action and request assistance from the cognizant industrial hygiene service as necessary.

CHAPTER 30

REFERENCES

30-1 DOD Instruction 1010.15 of 7 Mar 94, Smoke-Free
Workplace. (NOTAL)

30-2 OPNAVINST 5100.23 (Series), Navy Occupational Safety and
Health (NAVOSH) Program Manual

CHAPTER 31

WEIGHT HANDLING EQUIPMENT (WHE) SAFETY

3101. Discussion. The WHE Safety program is primarily concerned with:

- a. Maintaining the level of safety and reliability built into each unit of applicable equipment by the Original Equipment Manufacturer (OEM).
- b. Ensuring optimum service life.
- c. Providing uniform standards for licensing of WHE operators.
- d. Ensuring the safe lifting and controlling of WHE and promoting safe operating practices through the inspection, test, certification, qualification, and operation requirements.

3102. Program Requirements

- a. Shore activities and shore-based commands shall use references 31-1 and 31-2 when performing Weight Handling (WH) operations, except those WH operations that Naval Construction Forces, Naval Beach Groups, and other Special Operating Units perform; they shall comply with reference 31-3.
- b. WH Equipment Certification Program. The Commanding Officer/Officer in Charge shall designate a WH equipment certifying official(s) who shall ensure the activity's WH equipment is inspected, tested, and certified per references 31-1, 31-2, and 31-4, as applicable.
- c. Third Party Certification. OSHA requires activities using cranes and derricks in longshoring operations and floating cranes and floating derricks in shipbuilding, ship repair, and shipbreaking to be certified by an OSHA accredited certification agency. References 31-5 through 31-8 address OSHA certification requirements. OSHA has approved reference 31-2 as an alternate standard to the certification requirements of references 31-5 through 31-8 for Navy owned WH equipment, providing the Navy Crane Center, Northern Division, Naval Facilities Engineering Command performs the certification.
 - (1) Longshoring. Reference 31-7 defines the term "longshoring operations" as the loading, unloading, moving, or handling of cargo, ship's stores, gear, etc., into, in, on, or out of any vessel on the navigable waters of the United States (including U. S. territories). The certification program includes mobile cranes

which activities place aboard barges or other vessels and use to transfer materials or equipment from or to a vessel.

(2) Requirement. The Navy Crane Center shall certify all Navy-owned cranes requiring third party certification, unless CNO (N45) approves an alternate certification source. A private OSHA-accredited certification agency shall certify to OSHA standards contractor-owned cranes performing operations governed by references 31-5 through 31-8. Non-floating cranes and derricks that activities use in shipbuilding, ship repair, and shipbreaking do not require third party certification.

(3) Procedures. Reference 31-2 addresses specific procedures for third party certification.

d. Investigation and Reporting of WH Accidents. References 31-1 and 31-2 contain special reporting requirements concerning WH mishaps. These requirements are in addition to those specified in Chapter 14 of this instruction.

3103. Responsibilities

a. Commander, Naval Facilities Engineering Command shall manage the Navy's WHE programs ashore per OSHA standards or OSHA-approved alternate standards. They shall provide technical guidance, engineering services, WHE audits and assessments, and other assistance to shore activities, as appropriate, on a cost reimbursable basis. This responsibility includes developing and maintaining appropriate technical publications.

b. Chief of Naval Education and Training shall develop WHE safety training, including skills training, consistent with its training authority and responsibility.

c. Commanders, commanding officers, and officers in charge shall develop and implement WHE and rigging programs per references 31-1 through 31-25, as applicable to their activity, and adequately budget to ensure compliance.

d. The Site Safety Office shall:

(1) Provide oversight of the safety aspects of the WHE and rigging program including safety inspections, evaluations, assessments and audits, and mishap investigation.

(2) Assign a Safety Specialist to be a member of the Crane Accident Investigation Team (CAIT) coordinated by PWC.

(3) Investigate and report to Naval Safety Center, Norfolk VA, all WHE accidents, meeting the criteria outlined in references 31-1 and 31-26.

e. PWC Code 30A will provide WHE Inspections, test and certification in the San Diego Metro area in accordance with reference 31-27.

f. PWC Transportation Dept. Code 700 will maintain and repair all WHE in the San Diego Metro area in accordance with reference 31-28.

CHAPTER 31

REFERENCES

- 31-1 SECNAVINST 11260.2 of 10 Sep 97, Navy Weight Handling Program for Shore Activities (NOTAL)
- 31-2 OPNAVINST 5100.23 (Series), Navy Occupational Safety and Health Program Manual
- 31-3 NAVFAC P-404, Naval Construction Force Equipment Management Manual
- 31-4 NAVFAC P-307, Management of Weight Handling Equipment
- 31-5 29 CFR 1915, "Safety and Health Standards for Shipyard Employment"
- 31-6 29 CFR 1917, "Safety and Health Regulations for Marine Terminals"
- 31-7 29 CFR 1918, "Safety and Health Regulations for Longshoring"
- 31-8 29 CFR 1919, Safety and Health Regulations for Gear Certification"
- 31-9 29 CFR 1910, "OSHA General Industry Standards"
- 31-10 29 CFR 1926, "Safety and Health Regulations for Construction"
- 31-11 ANSI/ASME B30.2, Overhead and Gantry Cranes
- 31-12 ANSI/ASME B30.4, Portal, Tower and Pillar Cranes
- 31-13 ANSI/ASME B30.5, Mobile and Locomotive Cranes
- 31-14 ANSI/ASME B30.6, Derricks
- 31-15 ANSI/ASME B30.7, Base Mounted Drum Hoists
- 31-16 ANSI/ASME B30.8, Floating Cranes and Floating Derricks
- 31-17 ANSI/ASME B30.9, Slings
- 31-18 ANSI/ASME B30.10, Hooks
- 31-19 ANSI/ASME B30.11, Monorail and Underhung Cranes
- 31-20 ANSI/ASME B30.16, Overhead Hoists (Underhung)

- 31-21 ANSI/ASME B30.17, Overhead and Gantry Cranes (Top Running Bridge, Single Girder, Underhung Hoist)
- 31-22 ANSI/ASME B30.20, Below-the-Hook Lifting Devices
- 31-23 ANSI/ASME B30.21, Manually Lever Operated Hoists
- 31-24 ANSI/ASME B30.22, Articulating Boom Cranes
- 31-25 Wire Rope Sling Users Manual published by the Wire Rope Technical Board
- 31-26 OPNAVINST 5102.1C, Ch-1, Mishap Investigations and Reporting
- 31-27 PWCSINST 11260.3A, Management of Weight Handling, Construction, and Allied Equipment
- 31-28 NAVFAC P-300, Management of Civil Engineering Support Equipment

CHAPTER 32

RECREATION AND OFF DUTY SAFETY (RODS) PROGRAM

3201. Discussion. This chapter provides guidance and resources for implementation of the Navy Recreation and Off Duty Safety (RODS) Program per references 32-1 through 32-3. The program applies to all COMNAVREG SW and customer activity military personnel, on or off base. It also applies to any COMNAVREG SW and customer activity person, including civilians and Navy military dependents participating in recreational activities on government property. Also included are all participants in command sponsored events on or off base.

3202. Responsibilities

a. The Morale, Welfare and Recreation (MWR) Program Manager shall designate in writing a Recreation and Off-Duty Safety (RODS) Program Manager for COMNAVREG SW. The RODS Program Manager will administer the program in support of DOD policy and reference 32-1. Program requirements include the following:

(1) Participation in Council Meetings. Attendance of the RODS program manager in quarterly Occupational Safety and Health (OSH) meetings or Safety Council meetings for forces afloat. Involvement is for the purposes of identifying and recommending improvements for naval recreation and athletics facilities and programs.

(2) Facilities and Equipment. Recreational facilities and equipment used by military patrons and dependents will be of safe design and provide a safe and healthful environment for patrons as well as workers.

(a) Plans and specifications of recreational facilities will be reviewed prior to acquisition to ensure hazards are eliminated. The RODS program manager should participate with cognizant safety professionals and industrial hygienists in the review process. Recommendations for improvements shall be submitted in writing to the cognizant purchasing authority.

(b) Recreational and athletic equipment purchased for Navy use shall conform, as applicable, to safety guidelines established by nationally recognized consensus agencies.

(3) Inspections. Recreational facilities and equipment will be inspected at least annually. Inspections shall be conducted jointly by competent safety and health personnel, and

the designated RODS program manager to identify hazards and to ensure abatement is implemented.

(4) Personal Protective Equipment (PPE). Use of PPE will be required and enforced for all hazardous recreational activities when personnel are either on or operating government property or participating in command-sponsored events.

(5) Training. Education is vital to the success of any safety program. Hazard awareness and qualification training will be conducted to ensure individuals are aware of specific hazards, PPE requirements, and procedures for protecting themselves in recreation and athletic environments.

(a) Equipment Qualification. Patrons using equipment in Navy automotive and wood-working hobby shops, and recreational watercraft are potentially exposed to high hazard activities. MWR staff will ensure patrons are qualified to safely operate power tools, hydraulic lifts, spray paint booths and watercraft. A qualified MWR staff member should conduct training. A record of qualification will be maintained. Safety precautions, equipment guards and PPE will be emphasized.

(b) Recordkeeping of Training. Training records will be maintained for two years. Each department should maintain its own training records. These records should be available for annual inspections.

(6) Mishap Investigation and Reporting.

b. The RODS Program Manager will administer the program in support of DOD policy and reference 32-1 as follows:

(1) Evaluate the program and recreational facilities and equipment at least annually to ensure a safe and healthy environment for patrons and workers.

(2) Review all mishaps per reference 32-2 to determine compliance with and adequacy of procedures, and to identify the underlying cause(s) of any mishap, and take corrective action(s) to prevent recurrence.

(3) Ensure mishaps are recorded and reported per references 32-2 and 32-3, and analyze data at least annually to determine if more frequent inspections are warranted.

(4) Establish and conduct RODS Committee meetings to identify, assess and recommend improvements for specific recreation and off duty problem areas.

(5) Ensure seasonally appropriate hazard awareness and safety training is conducted to ensure personnel are aware of specific hazards, personal protection requirements and procedures for protecting themselves in recreation and off duty environments.

c. Site Safety Manager shall:

(1) Ensure technical assistance is available to the RODS program manager.

(2) Inspect recreational facilities and equipment, with a qualified Occupational Safety and Health (OSH) inspector, at least annually to identify and minimize hazards and to ensure correction of hazards.

(3) Attend RODS Committee meetings.

(4) Oversight hazardous activities at MWR facilities to ensure the use of approved personal protective equipment (PPE) as required in accordance with reference 32-1.

d. Supervisors shall:

(1) Conduct training in recreation and off duty safety.

(2) Ensure personnel follow the applicable provisions of this instruction and reference 32-1.

(3) Report and investigate all mishaps per references 32-2 and 32-3.

(4) Ensure facilities and equipment used by personnel are maintained in a safe and healthful condition at all times.

e. All Personnel will:

(1) Comply with all applicable provisions of this Program and reference (32-1).

(2) Report observed hazards.

(3) Immediately report personal injuries, illnesses or property damage to their supervisor.

CHAPTER 32

REFERENCES

- 32-1 OPNAVINST 5100.25 (Series), Navy Recreation, Athletics and Home Safety Program
- 32-2 OPNAVINST 5102.1 (Series), Mishap Investigation and Reporting
- 32-3 OPNAVINST 5100.23 (Series), Navy Occupational Safety and Health (NAVOSH) Program Manual

CHAPTER 33

TRAFFIC SAFETY

3301. Discussion. Every year motor vehicle mishaps contribute to Navy personnel injuries, property damage, and untimely deaths of military personnel. Motor vehicle accidents are too costly and interfere with the operational readiness of any organization due to loss of our most precious resource - personnel.

3302. Applicability. Provisions of this instruction are applicable to all Navy military personnel at all times, all Navy civilian personnel in a duty status, all persons in/on any Navy motor vehicle (on and off base) and all persons at any time on a base under COMNAVREG SW area of responsibility (AOR).

3303. Responsibilities.

a. Regional Safety Program Manager shall:

(1) Appoint a Traffic Safety Program Manager (in writing) to provide central management and coordination of the Traffic Safety Program.

(2) Nominate individuals to attend COMNAVSAFECEN sponsored traffic safety train-the-trainer courses.

(3) Submit an Annual Safety Belt Usage Report no later than 1 March of each year to COMNAVSAFECEN.

(4) Ensure motorcycle and driver improvement training programs are available in the Region.

b. Per reference 33-1, Chief of Naval Education and Training shall provide initial entry point traffic safety training to all military personnel under 26 years of age who possess a driver's license.

c. Per reference 33-1, Commander Naval Supply Systems Command shall prohibit the sale of radar detection devices in any Navy resale service outlet.

d. Regional Security Program Manager shall:

(1) Maintain a coordinative relationship with the Regional Safety Program and Regional Real Property Management Program Managers in respect to motor vehicle mishap investigation, recording and reporting, parking planning and

control, traffic codes and requirements enforcement, and access control programs.

(2) Provide emergency vehicle operators course (EVOC) for all operators of security emergency vehicles per reference 33-1.

(3) Establish regulations concerning the operation of loud vehicle audio equipment on Regional installations.

e. Site Security Officer shall:

(1) Provide enforcement of traffic codes and regulations established by this instruction and reference 33-1.

(2) Conduct investigations of all on-complex motor vehicle mishaps including both government motor vehicle and privately owned vehicles, and record findings.

(3) Report, quarterly, number of on-complex crashes, related injuries and estimated vehicle damage costs to Site Safety Manager.

(4) Conduct quarterly safety belt use check points and record findings.

(5) Maintain a coordinative relationship with the Site Safety Manager and Site Public Works Officer in respect to motor vehicle mishap investigation, recording and reporting, parking planning and control, and access control programs.

(6) Support Complex Traffic Safety Council by participating in the quarterly meetings.

(7) Ensure Complex Traffic Court judges are familiar with the requirements of this instruction.

(8) Ensure that police officers are familiar with the enforcement requirements of this instruction and reference 33-1.

f. Regional Federal Fire Program Manager shall provide EVOC training for operators of ambulances, fire apparatus, emergency response vehicles and disaster preparedness personnel per reference 33-1.

g. Regional Real Property Maintenance Program Manager shall:

(1) Coordinate with the Military Traffic Management Command to periodically evaluate highway design, construction and

maintenance of Regional facility roads and ensure DOD implementation of traffic engineering services per reference 33-1.

(2) Procure, construct, install, and maintain permanent traffic control devices necessary for controlling traffic flow and parking.

h. Site Public Works Officer shall:

(1) Ensure the installation road networks are maintained in a safe condition, and capital improvements to modernize existing roads or to provide new traffic facilities meet the standards issued or endorsed by the Federal Highway Administration, Department of Transportation.

(2) Support Complex Traffic Safety Councils by participating in the quarterly meetings.

i. Regional Vehicle Transportation Program Manager shall:

(1) Ensure GMVs are equipped with occupant restraint devices and rollover protection, when appropriate, and shall meet all other applicable requirements.

(2) Ensure Navy School Bus Operators complete school bus operator training per reference 33-1.

(3) Provide inspections and maintenance of government motor vehicles per this instruction and reference 33-1.

j. Complex Commanding Officer shall establish and chair a Complex Traffic Safety Council to analyze traffic mishaps, identify hazardous locations and work with local officials to resolve traffic safety problems of mutual concern.

k. Regional Traffic Safety Manager shall:

(1) Maintain and coordinate all aspects of the Region's traffic safety program. Cross-Functional program managers/ individuals having traffic safety program responsibilities are encouraged to share resources and coordinate program activities.

(2) Participate in Community Traffic Safety Councils, traffic safety related courses, federal, state or local traffic safety conferences, workshops and seminars to remain current with traffic safety state-of-the-art technology.

(3) Coordinate and instruct Motorcycle Safety Foundation (MSF) training per this instruction.

(4) Assist Site Safety Managers in monitoring all motor vehicle training requirements per this instruction.

(5) Assist Site Safety Managers with agenda and action items arising from Complex Traffic Safety Council meetings.

(6) Consolidate and analyze complex safety belt use checkpoint findings.

(7) Prepare an Annual Safety Belt Usage Report no later than 15 February of each year. This report has been assigned Report Control Symbol DD-A&T (A) 2083 in accordance per reference 33-1.

(8) Consolidate and analyze on-complex motor vehicle mishap statistics.

(9) Annually report, to COMNAVSAFECEN, the number of Regional on-complex crashes, related injuries and estimated vehicle damage costs.

(10) Develop educational programs to ensure military and civilian personnel are aware of the requirements in this instruction.

(11) Develop and maintain a Traffic Safety Orientation lesson plan to be used by Site Safety Managers to conduct orientation briefings for all new personnel arriving from outside the local geographical area. Include such topics as: base traffic patterns; local community driving hazards and situations; special weather driving conditions; state and local vehicle and driving laws; vehicle registration; motorcycle training and personal protective clothing requirements; safety belt and child safety seat laws; alcohol and drug abuse driving countermeasures and risk management training.

(12) Ensure Site Safety Managers conduct periodic traffic safety briefings prior to major holidays, extended weekends or liberty periods, to units visiting foreign ports, returning from deployment or when mishap experience warrants additional training.

(13) Annually review the Regional Access instruction to ensure it contains requirements, which are consistent with the traffic regulations established by this instruction and reference 33-1.

1. Site Safety Manager shall:

(1) Establish and conduct quarterly a Complex Traffic Safety Council to analyze traffic mishaps, identify hazardous locations and work with local officials to resolve traffic safety problems of mutual concern.

(2) Report, to the Complex Traffic Safety Council, the number of on-complex crashes, related injuries and estimated vehicle damage costs.

(3) Coordinate and ensure instruction of the American Automobile Association Driver Improvement Program (AAADIP) for complex violators sentenced to Traffic School.

(4) Monitor all motor vehicle training requirements set forth in this instruction.

(5) Conduct accident investigations and reporting per reference 33-2.

(6) Coordinate and ensure traffic safety briefings for all Navy personnel are conducted prior to the summer holiday period and again before the winter holiday period. Suggested topics may include local traffic laws, safe operating practices and defensive driving, risk management, impaired driving, occupant protection, etc. Training material may be found on the Naval Safety Center's Internet web site:
<http://www.safetycenter.navy.mil>.

(7) Document all periodic traffic safety briefings. Include names of attendees, dates of training and subjects discussed. Records shall be made available for Immediate Superior in Charge reviews.

m. Supervisors shall:

(1) Incorporate the principles of risk management as an integral part of all government motor vehicle related duties and responsibilities per reference 33-1.

(2) Personally counsel subordinates, before a Leave Request/Authorization (NAVCOMPT Form 3065) is approved, on their proposed travel plans, e.g., mode, miles, and time necessary to complete their journey, when leave or liberty plans include long distance driving per reference 33-1.

(3) Establish an approval process to set or limit driving distances for overnight and weekend private motor vehicle travel for off-duty navy personnel, e.g., no more than 350 miles a day

with a 15 minute break every 2 hours. Shared driving duties may also reduce the probability of falling asleep at the wheel.

(4) Consider the risks involved when assigning long distance driving duties to watch personnel who have been on duty (in their regular job) for the previous eight hours, e.g., duty drivers. Driver fatigue and falling asleep at the wheel are significant contributors to personal injury and property damage mishaps.

(5) Ensure military and civilian personnel are aware of the requirements in this instruction.

(6) Conduct Traffic Safety Orientation briefings for new personnel arriving from outside the local geographical area.

(7) Ensure all Navy military personnel attend traffic safety briefings hosted by Site Safety Offices prior to summer and winter holiday periods.

(8) Report motor vehicle mishaps to the Site Safety Office by telephone per this instruction. This notification shall be made within 24 hours of the mishap or on the next duty day.

n. Emergency Vehicle Operators shall complete emergency vehicle operator training per reference 33-1.

o. Navy School Bus Operators shall complete school bus operator training per reference 33-1.

p. All Navy military and civilian employees shall become familiar with this instruction and support the Navy Traffic Safety Program through compliance with the provisions contained herein.

3304. Complex Traffic Safety Council

(1) Purpose. The Council shall:

(a) Analyze traffic mishap and violation experience.

(b) Monitor all on-station road networks and off-station road networks in close proximity of the station.

(c) Identify mishap locations and analyze high mishap incidence locations. Analysis shall include identification of design and operating features with potentially high mishap frequency or severity.

(d) Maintain close cooperation and coordination with local and state officials to resolve mutual traffic safety problems.

(2) Membership:

(a) Commanding Officer/Executive Officer - Chair

(b) Site Safety Manager - Recorder

(c) Site Security Officer - Member

(d) Site Public Works Officer - Member

(e) Regional Traffic Safety Manager - Participate as often as practical

(f) Complex tenants - Open to all

(3) Meetings. The council will meet quarterly or more frequently if deemed necessary by the Chairperson.

(4) Meeting Minutes. Site Safety Managers will prepare, publish and file minutes.

CHAPTER 33

REFERENCES

- 33-1 OPNAVINST 5100.12 (Series), Navy Traffic Safety Program
- 33-2 OPNAVINST 5102.1 (Series), Mishap Investigation and Reporting
- 33-3 COMNAVREGSWINST 5100.12 (Series), Navy Region Southwest Safety Program

CHAPTER 34

MATERIALS HANDLING EQUIPMENT

3401. Discussion

a. Reference 34-1 establishes handling policies, procedures, and responsibilities for use by DOD activities involved in the receipt, storage issue and care of military supplies and equipment.

b. Materials' handling is the movement of materials to, through, and from packing and shipping areas. Two basic categories of materials handling equipment (MHE) used for materials handling are powered and non-powered. (The two are described in detail in reference 34-2).

3402. Applicability. Safety practice for MHE will be adhered to at all times by all involved. Operators/users shall be trained in the use of MHE.

3403. Responsibilities

a. COMNAVREG SW and customer activities shall ensure MHE programs are established per the guidelines of reference 34-1.

b. Supervisors shall:

(1) Ensure operators/users are fully qualified for equipment being used.

(2) Ensure the proper type of equipment is used for the specific job involved.

(3) Ensure equipment is of the correct rated load capacity for the weight of material to be handled.

(4) Ensure equipment is properly maintained.

c. Employees shall:

(1) Adhere to training received

(2) Adhere to safety procedures

(3) Inform the supervisor immediately of any malfunctioning or deficient MHE.

CHAPTER 34

REFERENCES

- 34-1 DOD 4145, 19-r-1 (Storage & Materials Handling)
- 34-2 Military Standard 137c

CHAPTER 35

PESTICIDE CONTROL PROGRAM

3501. Discussion. Naval shore commands employ personnel to apply pesticides for golf course and athletic grounds, maintenance and general pesticide removal.

3502. Responsibilities

a. The Safety Office shall oversight the Pesticide Control Program in accordance with reference 35-1.

b. The Pesticide Control Coordinators shall:

(1) Develop the Pest Management Plan in accordance with Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) and guidance provided in references 35-1 and 35-2.

(2) Ensure all personnel who supervise pest control operations or who apply pesticides are certified in accordance with reference 35-3;

(3) Provide the Safety Office with a copy of the most current Pest Management Plan (PMP); and

(4) Coordinate with Naval Facilities Engineering Command to ensure the PMP is kept current; and

(5) Ensure commercial service contract personnel are state-certified applicators, or are under the direct (line of sight) supervision of a state certified applicator.

c. Supervisors shall ensure:

(1) Only qualified personnel handle pesticides, and that these personnel receive required physicals;

(2) Those personnel who require respiratory protection are medically qualified, receive annual respiratory protection training, and are fit tested annually;

(3) Pesticide spill management procedures are posted in the workplace;

(4) Ready-to-use pesticide spill kits are placed in every pesticide mixing/storage facility and in each vehicle used to transport and apply pesticides;

(5) Pesticide storage areas comply with the requirements of reference 35-4;

(6) "No Smoking" signs are posted at the pesticide facility;

(7) A current listing of all pesticides in storage is maintained and readily available;

(8) Pest control facilities maintain, on site indefinitely, an MSDS for each pesticide formulation stored or used, that pesticide workers are familiar with the MSDS information and that the MSDS's are readily accessible to personnel during their work shift;

(9) Employees follow Standard Operating Procedures (SOPs) regarding the safe use and handling of pesticides and personal protective equipment.

3504. Medical Surveillance

a. The cognizant medical command shall provide occupational health services.

b. Baseline, periodic and termination medical evaluations are required in accordance with reference 35-3.

3505. Training. Pesticide Applicator training consists of apprenticeship training, correspondence training, and formal classroom training. Written examinations are required for the last two elements to achieve certification. Recertification is required every three years and consists of course work meeting the requirements of reference 35-1.

CHAPTER 35

REFERENCES

- 35-1 OPNAVINST 6250.4B, Pest Management Program
- 35-2 DODINST 4150.7, Pest Management Program
- 35-3 DOD 4150.7-M, DOD Pest Management Training and Certification
- 35-4 NAVMED P-5010, Chapter 8, Food Service Sanitation