

CAREER DEVELOPMENT PROGRAM FOR SAFETY AND OCCUPATIONAL HEALTH
AND INDUSTRIAL HYGIENE PERSONNEL

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FOREWORD

This publication provides guidance on career development for personnel employed in the safety and occupational health, and industrial hygiene professions. The publication contains information on what is considered to be minimal developmental requirements for personnel to be fully qualified as safety or industrial hygiene professionals in the Department of the Navy (DON) and recommends methods for those personnel to attain qualifying experience. The guidelines contained herein have been developed to aid in establishment of individual development plans aimed towards achieving required competencies. The guidelines should be carefully reviewed by the manager to determine if they are consistent with the mission and scope of the activity.

The publication is structured to provide: methods for program development and maintenance (Chapter 1), career development plan for safety personnel (Chapter 2), industrial hygiene personnel (Chapter 3), safety and occupational health managers, and supervisory industrial hygienists (managers) (Chapter 4), and guidelines for development plans (Chapter 5). Appendix A and A-1 provides a sample IDP as well as a blank form. Appendix B provides some sources for developmental training.

Completion of the recommended professional development actions identified in this plan will result in professional proficiency but may not necessarily guarantee promotion to the next grade level. Promotions are competitive and may require additional actions to be completed. Career ladder progression must be coordinated with servicing human resource offices. Recommendations for change or improvement to this publication may be submitted to the Commander, Naval Education and Training Center, 250 Dallas St. Pensacola, FL, 32508.

CHAPTER 1
PROGRAM DEVELOPMENT AND MAINTENANCE

1. Coverage. The safety and occupational health and industrial hygiene career development program is designed to cover civilian employees of the Department of the Navy in the following classification series: Safety Technician, GS-019; Safety Specialist, GS-018; Safety Engineers, GS-803; Supervisory Safety Specialist, GS-018; Safety Manager, GS-018; Industrial Hygiene Technician, GS-640; Industrial Hygienist, GS-690; and Supervisory Industrial Hygienist, GS-690. The guidelines in this publication may also be applied to identifying developmental needs for military personnel in equivalent positions. Military equivalents include NOBC's 0862, 2740, 8656 and 8995, from ENS to CDR; and NECs 9571 and SW-6021, from E-4 to E-9.

2. Program Organization. The program is under the Safety and Occupational Health (SOH) Navy Training System Plan Working Group.

3. Actions. The career development guidelines in this publication are for use in the development and implementation of Individual Development Plans (IDPs) as required by the OPNAVINST 5100.23 Series.

4. Professional Certification. Personnel in either the safety or industrial hygiene career fields are encouraged to strive for professional certification. While Certified Safety Professional® (CSP®) and Certified Industrial Hygienist® (CIH®) is widely recognized as professional certifications, they are not the only certifications available. Typically, CSP® and CIH® require a Bachelors degree or higher in industrial hygiene, safety, safety engineering, or safety management, as well as specific coursework and work experience. It is up to each individual to make a determination of the type of certification which is most appropriate to their career, and third party accreditation (such as ANSI) of the certifying body is a hallmark of legitimacy to look for. This guidance is consistent with the requirements of SECNAV 12410.24. Progression to higher graded positions may become more difficult to obtain without such certification, due to the competitiveness of the job market. Those who do not meet the academic requirements of CSP® and CIH® may be eligible for the Occupational Safety & Health Technologist (OHST) designation. The requirements established for the OHST is governed by the Council on Certification of Health, Environmental and Safety Technologists.

CHAPTER 2

SAFETY OCCUPATIONAL and HEALTH (SOH) PERSONNEL

1. Introduction. The Career Development Plan (CDP) provided in this chapter identifies developmental assignments, formal training and other activities considered necessary to achieve the knowledge, skills and abilities (KSA's) deemed important for personnel assigned to SOH positions. This chapter outlines actions for entry through journeyman level personnel, including personnel in the GS-019, Safety Technician series. Completion of these actions will provide personnel the necessary background to become fully qualified journeyman SOH Specialists, GS-018/11. These guidelines also apply to personnel in the Engineer, GS-803 series, who serve as Safety Engineers or who provide technical support to the Safety Manager staff.

2. SOH Professional Management. Regions and activities will ensure that SOH professionals have adequate training to perform necessary technical monitoring, consulting, testing, inspecting and other tasks that are required to have a robust SOH program.

3. Functions Performed by Safety Personnel. Safety professionals are expected to perform the following functional tasks in varying degrees of magnitude depending on the nature, size and scope of their organization:

a. Support command mission and participate in overall activity/unit management including committees, councils, budgeting, employee relations, injury compensation, training, business planning/strategy, and providing other functional assistance.

b. Manage or assist in the overall management of the activity safety and occupational health program. Review and interpret national, federal, defense, and Navy safety standards, manuals, reports and other formal written communications, and develop local guidance. Act as technical advisor and coordinator on safety and occupational health issues. Recommend safety protective equipment and material.

c. Administer specialized safety sub-programs such as traffic safety, explosives safety, radiation safety, hazardous material control and management, confined space entry, laser safety, recreation and off-duty safety, electrical safety, training safety, and diving safety.

d. Coordinate safety education, training and motivational programs, including developing or providing training or training materials.

e. Evaluate safety program effectiveness and the achievement of safety objectives. Identify deficiencies, recommend corrective measures and develop implementation plans.

f. Perform safety analyses of data to identify trends and hazard reduction requirements and actions.

g. Conduct inspections of facilities, equipment, material and operations to identify hazards and prepare inspection reports which recommend corrective measures. Develop and maintain abatement programs for identified hazards. Evaluate levels of risk for determining hazard correction priorities.

h. Investigate mishaps and hazardous incidents to determine causation factors and/or improper work/behavioral practices. Prepare mishap investigation reports.

i. Develop or evaluate hazard controls and recommend hazard control measures for unsafe conditions, operations and practices.

j. Perform safety research to identify hazard control measures, potential failure modes and methods to improve program effectiveness.

k. Review plans, designs and specifications for operations and facilities to identify proper hazard controls. Coordinate control measures and programs with management officials/contractors.

4. Knowledge, Skills and Abilities (KSA's) Required to Perform Safety Functional Tasks. Table 2-1 describes the KSA's considered necessary to perform the functions discussed in section 3 above. The KSA's identified are used to develop Journeyman Safety Specialists, and only certain elements of the KSA will apply to Safety Engineers, Technicians and Collateral Duty Safety personnel.

5. Description of Safety Positions.

a. SAFETY TECHNICIANS. Navy civilian safety technicians are responsible for field level work and are not typically assigned to administer elements of command safety programs. Safety technicians conduct field testing, inspections, surveys, research, data analysis, assist in conducting training, and submit field notes to safety specialists. Grades for GS-019, safety technicians, can be as low as GS-2 but typical entry grade is GS-5 or GS-7. Personnel in the GS-019 series who have attained the GS-05/07 level can qualify for vacancies in the GS-018 series providing adequate time in grade requirements are met.

b. SAFETY AND OCCUPATIONAL HEALTH (SOH) SPECIALISTS. Navy civilian SOH specialists are responsible for the major elements of a command safety program. SOH specialists provide technical guidance to supervisory personnel and advise the safety manager on the status of their assigned areas of responsibility. SOH specialists are normally assigned to specific operations or geographical areas and/or to specific safety sub-programs such as explosives safety, radiation safety, accident data analysis, safety training, etc. SOH specialists perform the tasks identified focusing on the non-engineering aspects of those tasks. The entry level for SOH specialist is normally GS-05 in the 0018 series and the GS-11 is considered the journeyman level. All GS-0018s should have an Individual Development Plan (IDPs) to reach the journeyman level.

c. SAFETY ENGINEERS. Navy civilian safety engineers are responsible for the engineering design, selection and/or evaluation of hazard controls, or safety standards, and for conducting safety engineering reviews of Navy environments and materials. Safety engineers provide technical guidance for the safety manager and other organizational engineering or technical divisions. Safety engineers perform the tasks identified above, focusing on the engineering aspects of those tasks. The entry level for safety engineers is normally on the GS-5 or 7 level, in the GS-0803 classification series. The journeyman level is GS-11 or 12 depending on the nature, size and risks at the employing activity.

d. COLLATERAL DUTY SAFETY OFFICERS. Collateral duty safety officers typically serve as liaisons between the tenant and host command as well as safety advisors to the Commanding Officer/Officer-in-Charge, and may be civilian or military.

6. Development Plan. This plan is designed to provide an effective procedure for developing qualified journeyman level SOH personnel dependent on scope and mission of the activity. SOH specialists at the entry level (GS-5) may or may not have adequate complimentary technical and general education backgrounds. Most entry level safety personnel (technicians, specialists or engineers) will have a minimal safety background. A CDP provides for integrated training and experience in all aspects of safety and occupational health as found in Navy work environments. Development periods as described are approximately 24-36 months in length for SOH trainees (technicians, specialists and engineers) and will develop the SOH specialist and/or engineer through the GS-7 & GS-9 level to the required fully qualified journeyman level (GS-11). Requirements may have been accomplished through previous experience or academic training. Variations to the plans should be defined in specific Individual Development Plans (IDPs) to accommodate command and individual requirements.

a. Field Activity Safety Program Assignments. On-the-job (OJT) training for entry level personnel must be oriented to providing exposure in all KSA's. Table 2-2 lists subject matter and recommended assignments for supervised OJT training and is based on gaining experience in a diversified safety program. This table is not applicable to collateral duty safety personnel. SOH trainees should be required to actively participate in all SOH program functional areas during their developmental period. The time line identified for the exposure to KSA's need not be executed in consecutive time periods. The goal of OJT assignments is to develop basic abilities and provide sufficient experience to perform effectively and independently at the journeyman level. OJT is situational and dependent upon the requirements and mission of the activity.

b. Activity Functional Rotational Assignments. SOH trainees should receive orientations in each major functional element of an activity. Table 2-3 lists recommended assignments. These assignments are designed to familiarize the SOH trainee with organization and functional requirements. The goal of the orientations is to provide exposure and experience with all elements of activity operations and Navy SOH program administration in order to meet overall KSA requirements and perform professionally at the journeyman level. For small or tenant activities where major SOH programs (i.e. materials handling, crane operations, confined space entry, etc.) may not be applicable, rotating SOH personnel should be strongly encourage to other larger Naval activities providing the SOH

trainee exposure to a variety of SOH programs and processes at these activities.

c. Formal Classroom Training. Table 2-4 lists formal training subject matter considered necessary for a fully qualified journeyman. In addition, journeymen may need other specialized training in order to perform assigned tasks or manage programs. Table 2-5 lists additional training requirements for personnel assigned specific program responsibilities, typically personnel at the GS-9 or 11 level. Identified references should be reviewed periodically to determine if changes have occurred in training requirements. Subject matter listed in Tables 2-4 and 2-5 may be completed through a variety of methods including college courses, correspondence courses, workshops and conferences. Appendix B provides a matrix of available subject training resources. The assigned supervisor is responsible for ascertaining sources of approved training (federal and commercial) to meet training needs. To complete the plan, individual self development may be necessary and must be encouraged. The goal of formal classroom training is to provide the trainee with technical knowledge in all primary elements of the safety profession in the Naval environment.

**TABLE 2-1
KNOWLEDGE, SKILLS AND ABILITIES (KSA's)**

FUNCTION 1: Administer safety sub-programs		
a. <u>Knowledge</u> of the various safety sub-programs such as occupational health, explosives safety, traffic safety, radiation safety, maritime safety, etc.	b. <u>Skill</u> in including providing leadership and direction.	c. <u>Ability</u> to manage and administer programs.
FUNCTION 2: Activity Management		
a. <u>Knowledge</u> of staffing, budgeting, FECA compensation management.	b. <u>Skill</u> in contracting and resource management.	c. <u>Ability</u> to provide the business support for safety functions of the activity.
FUNCTION 3: Provide safety education, training and motivational programs.		
a. <u>Knowledge</u> of identifying training needs, curriculum development and training development for effective adult learning.	b. <u>Skill</u> choosing effective training and motivational programs, and skill in conducting safety education and training preparation of training materials for presentations.	c. <u>Ability</u> to develop or evaluate safety education, training or motivational material and programs.

FUNCTION 4: Evaluate safety program effectiveness.		
a. <u>Knowledge</u> of DOD, SECNAV and OPNAV directives and instructions; and Code of Federal Regulations, and safety program evaluation techniques.	b. <u>Skill</u> at gathering and reviewing data essential for evaluation.	c. <u>Ability</u> to objectively evaluate and communicate program effectiveness and to recommend improvement.
FUNCTION 5: Perform safety analysis.		
a. <u>Knowledge</u> of safety analysis methods, hazard control techniques, and safety science.	b. <u>Skill</u> in conducting analysis, interpreting data, and developing conclusions.	c. <u>Ability</u> to perform safety analysis of data, facilities, equipment, material and operations.
FUNCTION 6: Perform safety and occupational health inspections.		
a. <u>Knowledge</u> of DOD, SECNAV and OPNAV directives and instructions; and Code Federal Regulations, and consensus safety standards, and activity workplace environments, operations, material and equipment.	b. <u>Skill</u> in conducting inspections and preparing written reports.	c. <u>Ability</u> to recognize violations of standards and potential risk factors, and to determine corrective measures.

FUNCTION 7: Investigate mishaps and prepare reports.		
a. <u>Knowledge</u> of OPNAVINST 5102.1 series, mishap causation factors and investigation techniques.	b. <u>Skill</u> in conducting investigations, interviewing witnesses, collecting evidence, indentifying root causes and developing recommendations, and preparing reports.	c. <u>Ability</u> to conduct investigations, recognize root and contributing causal factors and determine preventive measures.
FUNCTION 8: Develop and evaluate hazard controls.		
a. <u>Knowledge</u> of hazard identification, risk assessment and hazard control principles, methods, and practices.	b. <u>Skill</u> in identifying, prioritizing, selecting and evaluating specific hazard controls.	c. <u>Ability</u> to assign RAC codes, evaluate safety risk factors, prioritize hazards, and recommend abatement measures.
FUNCTION 9: Conduct safety research.		
a. <u>Knowledge</u> of safety resources and research principles and techniques.	b. <u>Skill</u> in conducting literature, laboratory, and field research.	c. <u>Ability</u> to organize, administer, evaluate and communicate research projects.

FUNCTION 10: Review plans and designs.

a. Knowledge of safety standards and hazard control principles and blue print and design principles.

b. Skill in performing reviews and evaluations and in making hazard control recommendations.

c. Ability to review plans, designs, and contracts to evaluate safety features which includes but not limited to: identifying safety non-compliance when reviewing blue prints and designs.

**TABLE 2-2
FIELD ACTIVITY SAFETY PROGRAM ASSIGNMENTS (OJT)**

SUBJECT MATTER	LENGTHS (In weeks)			KSA EXPOSURE (Table 2-1)
	ENGINEER	SPECIALIST	TECHNICIAN	
Occupational Health	5 - 7	24 - 28	5- 7	1 a,b,c
Hazardous Materials	N/A	5 - 7	5 - 7	1 a,b,c
Safety Sub-Programs Administration	5 - 7	40	N/A	1 a,b,c 2 a,b,c
Safety Training	5 - 7	12 - 14	5 - 7	3 a,b,c
Safety Program Evaluation	5 - 7	3 - 4	N/A	4 a,b,c
Hazard Analysis & Control/Mishap Trend Analysis	65 - 70	12 - 14	12 - 14	5, 8, 10 a,b,c
Safety Inspections	12 - 14	20 - 22	54	6, 10 a,b,c
Mishap Investigation and Reporting	20 - 22	20 - 22	12 - 14	7 a,b,c
Safety Research	24 - 28	3 - 4	12 - 14	9 a,b,c

This table represents 75% of the first two years of development.

**TABLE 2-3
ACTIVITY FUNCTIONAL ROTATIONAL ASSIGNMENTS**

FUNCTIONAL ELEMENT	LENGTHS (In days)			KSA EXPOSURE (Table 2-1)
	ENGINEER	SPECIALIST	TECHNICIAN	
Public Works/Construction/Maintenance: *See note below	3 - 4	3 - 4	4- 5	4, 5, 9 a,b,c
Personnel/Training	0.5 - 1	0.5 - 1	0.5 - 1	2 a,b,c
Medical/Industrial Hygiene	1 - 2	3 - 4	1 - 2	1, 5, 6 a,b,c
Fire protection/Prevention	3 - 4	2 - 3	3 - 4	1, 2, 5, 7 a,b,c
Planning/Engineering	3 - 4	0.5 - 1	0.5 - 1	4, 7, 8, 9 a,b,c
Operations/Production	3 - 4	3 - 4	4 - 5	5, 7 a,b,c
Research, Testing, Development & Evaluation/Quality Assurance	0.5 - 1	0.5 - 1	NA	7, 8 a,b,c

This table represents 5% of the first two years of development.

* US Army Corps of Engineers EM-385-1-1 Safety and Health Manual being a Federal Acquisition Regulation (FAR) Clause 52.236-13 (<http://cfr.vlex.com/vid/52-236-13-accident-prevention-19871362>) requirement for all construction or dismantling, demolition or removal of improvements with any Department of Defense agency or component. A 1 week construction course addressing EM-385-1-1 offered through NAVFAC and commercially will satisfy the above KSAs.

**TABLE 2-4
FORMAL TRAINING SUBJECT MATTER LIST**

SUBJECT MATTER	LENGTH (in weeks)	(TABLE 2-1)
Statistics	1	4,5,8a
Hazard Control and Prevention	1	4,6,8a
Safety Law	1	6a
Occupational Health and Industrial Hygiene	1*	1,2,4,6,8a
Hazardous Materials	1*	1,5,6a
System Safety	1	1,5a
Explosives Safety	2	1, 5,6a
Confined Space Safety	2	1, 5, 6a
Electrical Safety	1*	1, 5, 6a
Contract/Construction Safety	1	
Ventilation Design	1	1, 6, 8, 10a
Fire Prevention/Life Safety	1	1, 5a
Safety Training Methods	1**	3a
Mishap Investigation ***	1*	1, 5, 7a
Radiation Safety (Ionizing and Non-Ionizing)	2	1, 5, 6a
Traffic Safety	1	1, 7a

SUBJECT MATTER	LENGTH (in weeks)	(TABLE 2-1)
Safety Engineering/Facility Design	1	10a
Ergonomics	1	4
Machines and Machine Guarding	1	5,6,7,8,10a
Fall protection/fall protection systems/scaffolds	1	1,4,5,6,7,8
Industrial Hygiene monitoring for the SOH professional	1	8
Mishap trend analysis***	1*	1,4,5a,7
Safety Appraisal	1*	4,5a
Navy Occupational Safety and Health Standards/OSHA Standards	3*	1, 2,4,5,7,8,10a
Introduction to NAVOSH ****	1*	1a

1. Some course titles are generic and may differ depending on source.

2. Courses may vary by several days in length dependent on source.

* Mandatory to become fully qualified GS-018-11 IAW OPNAVINST 5100.23 (Series), Chapter 6.

** Mandatory to instruct safety and health courses of 2 hrs or more in length IAW OSHA General Industry Outreach Training Program Guidelines.

*** Mandatory to conduct Class A, B or C mishap investigations IAW OPNAVINST 5100.23 (Series), Chapter 14.

**** Mandatory for collateral duty ashore safety personnel IAW OPNAVINST 5100.23 (Series), Chapter 6.

**TABLE 2-5
FORMAL TRAINING REQUIREMENTS FOR PROGRAM MANAGEMENT**

PROGRAM DESIGNATION	REFERENCE	TRAINING REQUIRED
Asbestos Program Manager (Need not be the Safety Mgr)	OPNAV 5100.23 (series), Chapter 17	3 day Abatement Project Designer Course*; 2 day Asbestos Inspector/ Management Planner Course* and Naval Facilities Engineering Service Center Asbestos Program Manager Course (Accreditation as Asbestos Inspector required as prerequisite.)
Confined Space Entry Program Manager/Assistant Confined Space Entry Program Manager (CSPM/ACSPM) & Gas Free Engineer/Assistant Gas Free Engineer (GFE/AGFE)	OPNAV 5100.23 (series), Chapter 27 & NAVSEA S6470-AA-SAF-010 NAVAIR TECHNICAL MANUAL 01-1A-35	Confined Space Entry (A-493-0030)
Ergonomics Program Manager	OPNAV 5100.23 (series), Chapter 23	Ergonomics (A-493-0085)

PROGRAM DESIGNATION	REFERENCE	TRAINING REQUIRED
Explosives Safety Officer (ESO)	NAVSEA OP-5, Vol. 1, 7th Edition (Appendix D)	ESO Orientation Course (AMMO-74); Explosives Safety for Officers, Managers & Supervisors (AMMO-49); Explosives Safety for Naval Facility Planning (AMMO-36); Electrical; Explosive Safety for Naval Facilities (AMMO-33)**; Naval Motor Vehicle and Railcar Inspection (AMMO-51)
Explosives Safety Specialist	NAVSEA OP-5, Vol. 1, 7th Edition (Appendix D)	Basic Explosive Safety (AMMO-18) Explosives Safety for Officers, Managers & Supervisors (AMMO-49)
Hazardous Materials Control & Management (HMC&M) Program Manager (or Coordinator)	OPNAV 5100.23 (series), Chapter 7	Introduction to Hazardous Materials Ashore (A-493-0031)

PROGRAM DESIGNATION	REFERENCE	TRAINING REQUIRED
<p>Laser Systems Safety Officer (LSSO) Category I (A-493-0038) Category II (A-493-0067) dependent on laser classification</p>	<p>OPNAV 5100.23 (series), Chapter 22 OPNAVINST 5100.27/MCO 5104.1 (series)</p>	<p>Minimum requirement to be qualified to serve in the billet as a LSSO is the Administrative Laser Safety Officer Certification.</p> <p>Minimum requirement to be qualified to serve in the billet as RLSO is the Technical Laser Safety Officer Certification</p> <p>See http://www.navylasersafety.com for the appropriate course or email: lasersafety@navy.mil (Note: Refresher training is required if technical training is not used within 1 year of certification. Recertification is required every four years.</p>
<p>Radiation Safety Officer/ X-Ray Radiography</p>	<p>NAVSEA S0420-AA-RAD-010</p>	<p>Radiation Safety Officer (S-4J-0016). For X-ray radiography must take the X-ray Radiation Safety Course (S-491-0016) in addition to the Radiation Safety Officer Course.</p>
<p>Weight Handling Equipment Program</p>	<p>OPNAV 5100.23 (series), Chapter 31</p>	<p>Cranes and Materials Handling for General Industry (A-493-0074) or equivalent.</p>
<p>Workplace Monitor</p>	<p>OPNAV 5100.23 (series), Chapter 8</p>	<p>Workplace Monitor Training & Certification (BUMED)</p>

PROGRAM DESIGNATION	REFERENCE	TRAINING REQUIRED
Respiratory Protection Program Manager	OPNAV 5100.23 (series), Chapter 15	Respiratory Protection Program Manager (A-493-0072) or equivalent

* Annual training required.

** Mandatory refresher training is required.

CHAPTER 3
CAREER DEVELOPMENT PLAN FOR INDUSTRIAL HYGIENE PERSONNEL

1. Introduction. The career development plan (CDP) provided in this chapter identifies assignments, orientations, and formal training considered necessary to achieve the knowledge, skills and abilities (KSA's) deemed important for personnel in industrial hygiene positions. This chapter outlines actions for entry level personnel considered necessary in their development to the journeyman level. Completion of the CDP guidelines will provide personnel the necessary background to become fully qualified professionals in the civilian classifications of Industrial Hygiene Technician, GS-0640, and Industrial Hygienist, GS-0690. These guidelines may also be used to develop plans for Naval Industrial Hygiene Officers (NOBC 0862).

2. Industrial Hygiene Program Scope. Industrial hygiene programs provide direction and support to headquarters, station, unit or activity commands in matters relating to occupational health hazards in the workplace. Programs are also provided to assist in administering health hazard specific prevention programs at Navy facilities, ashore and afloat, and during operations involving Navy personnel. Programs cover government property and personnel and oversight of public and contractor personnel at government facilities or performing operations on government property. The Industrial Hygiene program is under the technical direction of the Chief, Bureau of Medicine and Surgery which is responsible for the accession, distribution, training and quality assurance aspects of IH professionals.

3. Functions Performed by Industrial Hygiene Personnel. Industrial hygiene professionals are expected to perform the following functional tasks in varying degrees of magnitude depending on the nature, size and scope of their organization or geographical support area:

a. Participate in overall activity/unit management including committees, councils, budgeting, employee relations, injury compensation, training, and providing other functional assistance relative to occupational health issues.

b. Assist in the overall implementation of the activity occupational health program. Review and interpret national, federal, defense, and Navy occupational health standards, manuals, reports and other formal written communications. Develop formal guidance as necessary to ensure activity

compliance with all such directives. Serve as technical advisor on all such issues.

c. Participate in, administer or audit/review, as required, specialized industrial hygiene programs such as noise, sight conservation, lead, asbestos, ionizing and non-ionizing radiation, laser, ventilation systems, respiratory protection, ergonomics and indoor air quality. Evaluate occupational health programs effectiveness and achievement of objectives. Identify areas of effectiveness and efficiencies, recommend corrective actions, and develop program improvements/implementation plans when appropriate.

d. Conduct industrial hygiene surveys and evaluations of work processes, facilities, buildings, ships, equipment and materials to identify health hazards. Conduct workplace monitoring as required by survey results and by mandated stressor-specific periodic monitoring requirements (e.g., lead, asbestos, cadmium, etc) to evaluate exposure levels.

e. Provide survey/evaluation reports, including findings, recommended corrective actions, notifications of personnel exposure and medical surveillance enrollment recommendations. Develop, maintain and execute hazard abatement and workplace monitoring programs, including risk assessment, to determine corrective actions and sampling priorities. Make recommendations to higher authority for necessary research when evaluations show insufficient information exists on the stressor.

f. Develop, review, audit, coordinate and/or provide occupational health training and education and/or provide informal/GMT health training.

g. Analyze exposure sampling data to identify exposure trends and candidates for hazard reduction and to recommend corrective actions.

h. Investigate personnel exposure mishaps, spills and hazardous conditions/incidents to determine exposures and make recommendations for corrective actions and/or remediation.

i. Evaluate, recommend and/or develop hazard control measures for unhealthful working conditions, operations and practices, including operation process or procedure changes; material substitution; process enclosures/isolation; process ventilation; personal protective equipment/chemical protective clothing; and administrative controls.

j. Review new and rework plans, designs and specifications for work processes, operations, facilities, buildings, and ships to identify health hazards and proper controls. Coordinate with contractor representatives as appropriate.

4. Knowledge, Skills and Abilities (KSA's) Required to Perform Industrial Hygiene Tasks. Table 3-1 describes the KSA's considered necessary to perform the functions described in section 3 above. The KSA's identified are used to develop Journeyman Industrial Hygienists, and only certain elements of the KSA will apply to Industrial Hygiene Technicians.

5. Description of Industrial Hygiene Positions.

a. Industrial Hygiene Technician. Navy civilian industrial hygiene technicians work under the technical direction of an Industrial Hygienist. Industrial Hygiene technicians conduct field sampling, inspections, surveys, research, and submit field notes to industrial hygienists. Entry grades for GS-640, industrial hygiene technicians, is GS-5 and progresses to GS-9.

b. Industrial Hygienist. Navy industrial hygienists are responsible for the anticipation, recognition, evaluation and the development of control recommendations for chemical, biological, physical, and ergonomic health hazards for all Navy and Marine Corps operations, personnel and environments. They provide technical assistance and support for all facets of the industrial hygiene program. The entry level for the industrial hygienist is normally GS-5 in the 0690 series and the GS-0690-12 level is considered the journeyman level. Entry level for military equivalent personnel is from ENS or LTJG.

6. Development Plan. This plan is designed to provide an effective procedure for developing qualified journeymen industrial hygiene personnel relative to the scope and mission of the activity. Industrial hygienists at the entry level (GS-5) may or may not have adequate complimentary technical backgrounds, nor are they generally familiar with Navy environments. The CDP for industrial hygienists is based on the assumption that the individual has the general education background at least at the baccalaureate level, no on-the-job training (OJT) experience and a modest amount of technical knowledge. The development periods as described for industrial hygiene technicians are approximately 24 months in length, and will develop the technician through the GS-09 level. Development periods as described for industrial hygienists are approximately 36 months in length and will develop the industrial hygienist

through the GS-11 level in preparation for transition to GS-12 Journeyman level through selective competition. The goal is to gain experience, confidence and competency in industrial hygiene practice, including the general areas of industrial hygiene fundamentals, instrument applications, hazard abatement, health hazard recognition, and sampling, survey and exposure assessment techniques. Variations to the plan should be defined in specific Individual Development Plans (IDP's) to accommodate command and individual requirements. Prior knowledge and education must be considered in the development of the IDP.

a. Field Activity Industrial Hygiene Assignments. OJT for entry level personnel must be oriented to providing exposure to all KSA's. Table 3-2 lists subject matter and recommended assignments for supervised OJT and is based on gaining experience in a diversified occupational health program. Industrial hygiene trainees should be required to actively participate in all occupational health functional areas during their developmental period. Time lines identified for exposure to KSA's, need not be executed in consecutive time periods. The goal of OJT assignments is to develop basic abilities and provide sufficient experience to perform effectively and independently at the journeyman level.

b. Activity Functional Rotational Assignments. Trainees should receive orientations in each major functional element of an activity. Table 3-3 lists recommended assignments. These assignments are designed to familiarize the trainee with organization and functional requirements. The goal of the orientation is to provide the exposure and experience with all elements of activity organizations and Navy health programs administration in order to meet overall KSA requirements and perform professionally at the journeyman level. These functional area orientations can be accomplished concurrently while completing the "Industrial Hygiene Walk-through" field activity outlined in Table 3-2.

c. Formal Classroom Training. Table 3-4 lists formal training subject matter considered necessary for a fully qualified journeyman. In addition, industrial hygienists may need other specialized training in order to perform assigned tasks or manage programs at their specific location. Table 3-5 may be used as a quick reference to determine training requirements for certain program management or specialized areas, but it is important to review the appropriate references which may change as information is updated. Subject matter listed in Tables 3-4 and 3-5 may be completed through a variety

of methods including college courses, correspondence courses, workshops and conferences. Appendix B provides a matrix of available subject training resources. The assigned supervisor is responsible for ascertaining sources of approved training (federal and commercial) to meet training needs. Requirements may have been accomplished through previous experience or academic training. To complete the plan, individual self development may be required and must be encouraged. The goal of the formal classroom training is to provide the individual with technical knowledge in all primary elements of the industrial hygiene profession in the Navy environment.

d. Industrial Hygiene Officers (IHO's) Training. Table 3-6 lists training considered necessary for the professional development of industrial hygiene officers (IHO's). Supervisors should strive to ensure that the identified training is completed by IHO's prior to assignment to the fleet. In addition, training should be identified for professional development dependent upon duties and responsibilities. The IHO career development plan recommends attainment of CIH by the end of the fourth tour, and attainment of a graduate degree in IH or a related field by the end of the third tour.

**TABLE 3-1
KNOWLEDGE, SKILLS AND ABILITIES (KSA's)**

<p>FUNCTION 1: Provide Advisory and Technical Support to the Activity Industrial Hygiene Program</p>		
<p>a. <u>Knowledge</u> of industrial hygiene programs and a broad range of Navy, Federal and consensus occupational health standards.</p>	<p>b. <u>Skill</u> in interpreting and communicating highly complex technical information through oral and written reports.</p>	<p>c. <u>Ability</u> to develop program policies, procedures, and regulations; effectively communicate and participate in problem solving; and provide technical recommendations and assistance.</p>
<p>FUNCTION 2: Evaluate, Audit, Review Industrial Hygiene Programs for Effectiveness, and Achievement of Objectives</p>		
<p>a. <u>Knowledge</u> of industrial hygiene program requirements and evaluation procedures.</p>	<p>b. <u>Skill</u> in conducting program audits, and measuring program effectiveness.</p>	<p>c. <u>Ability</u> to conduct program reviews and develop valid recommendations.</p>
<p>FUNCTION 3: Conduct Industrial Hygiene Surveys and Workplace Evaluations</p>		
<p>a. <u>Knowledge</u> of activity work practices, potential health hazards, use and calibration of industrial hygiene equipment.</p>	<p>b. <u>Skill</u> in applying experienced judgment.</p>	<p>c. <u>Ability</u> to conduct industrial hygiene surveys, use and calibrate industrial hygiene equipment.</p>

FUNCTION 4: Generate Written and Oral Evaluation Reports		
a. <u>Knowledge</u> of industrial hygiene survey report formats, technical writing, and oral presentation techniques.	b. <u>Skill</u> in interpreting, developing, preparing and evaluating industrial hygiene reports, instructions and publications.	c. <u>Ability</u> to communicate effectively through clear, concise written reports, and oral presentations.
FUNCTION 5: Develop, Review, Audit, Coordinate and/or Provide Occupational Health Training and Education		
a. <u>Knowledge</u> of industrial hygiene subject matter, and adult training methods.	b. <u>Skill</u> in conducting occupational health education and training and preparation of training materials for presentations.	c. <u>Ability</u> to develop and conduct occupational health training courses.
FUNCTION 6: Analyze Exposure Sampling Data and Perform Valid Exposure Assessments		
a. <u>Knowledge</u> of statistical analysis, theories, methods and techniques and exposure assessment criteria.	b. <u>Skill</u> in applying statistical analysis techniques and correlating data.	c. <u>Ability</u> to provide statistically valid data and exposure assessments.
FUNCTION 7: Investigate Personnel Exposure Incidents and Make Recommendations for Corrective Actions		
a. <u>Knowledge</u> of mishap causation factors, investigation procedures and investigative techniques.	b. <u>Skill</u> in conducting investigations and preparing reports.	c. <u>Ability</u> to conduct investigations, recognize causal factors, and determine preventive measures.

<p>FUNCTION 8: Evaluate and Recommend Hazard Control Measures and Corrective Actions for Unhealthy Working Conditions</p>		
<p>a. <u>Knowledge</u> of hazard control principles, methods and practices.</p>	<p>b. <u>Skill</u> in using sound hazard control principles.</p>	<p>c. <u>Ability</u> to make sound recommendations for corrective actions.</p>
<p>FUNCTION 9: Conduct Design/Specification/Process Reviews to Identify Health Hazards and Compliance with Specifications and Applicable Regulations</p>		
<p>a. <u>Knowledge</u> of schematic, technical drawings and specifications and regulatory requirements.</p>	<p>b. <u>Skill</u> in interpreting technical drawings and specifications and identifying deficiencies.</p>	<p>c. <u>Ability</u> to provide appropriate design specification and process review results.</p>
<p>FUNCTION 10: Use Automated Data Processing Systems and Processes Employed in Conjunction with Occupational Health Activities</p>		
<p>a. <u>Knowledge</u> of computer systems, programs and processes.</p>	<p>b. <u>Skill</u> in using automated data processing equipment and related software.</p>	<p>c. <u>Ability</u> to access and use programs, enter and process data, and create documents with word processing systems.</p>

**TABLE 3-2
FIELD ACTIVITY INDUSTRIAL HYGIENE PROGRAM ASSIGNMENTS (OJT)**

SUBJECT MATTER	LENGTH (In Weeks)		KSA Exposure (Table 3-1)
	Industrial Hygienist	Industrial Hygiene Technician	
Sampling and Monitoring Techniques	3 - 4	36 - 38	3 a,b,c
Laboratory Techniques	0.5 - 1	3 - 4	3 a,b,c
Hazardous Materials	2 - 3	3 - 4	7, 8 a,b,c
Industrial Hygiene Survey Report	15 - 16	NA	3,4,8, 10 a,b,c
Hazard Analysis and Control	6 - 8	3 - 4	2, 7, 8, 9 a,b,c
Risk and Exposure Assessment	6 - 8	3 - 4	6, 9 a,b,c
Automated Data Processing (including DOEHRs- IH)	2 - 4	1 - 2	4, 10 a,b,c
Industrial Hygiene Walk-through	20 - 24	13 - 14	3, 4, 6 a,b,c
Standards Research	4 - 5	1 - 2	1 a,b,c
Technical Design Review	2 - 3	NA	8, 9 a,b,c
Occupational Safety	1 - 2	0.5 - 1	1 a,b,c

SUBJECT MATTER	LENGTH (In Weeks)		KSA Exposure (Table 3-1)
	Industrial Hygienist	Industrial Hygiene Technician	
Industrial Hygiene and Safety Training	1 - 2	1 - 2	5 a,b,c
Medical Surveillance	1 - 2	N/A	1,6 a,b,c
Mishap/Spill/Incident Response	4 - 5	3 - 4	7 a,b,c

* This table represents 75% of the first two years of development

TABLE 3-3
ACTIVITY FUNCTIONAL ROTATIONAL ASSIGNMENTS

FUNCTIONAL ELEMENT	LENGTH (In days)		KSA Exposure (Table 3-1)
	Industrial Hygienist	Industrial Hygiene Technician	
Occupational Medicine	0.5 - 1	0.5 - 1	1, 2 a,b,c
Audiology	0.5 - 1	0.5 - 1	1, 2 a,b,c
Preventive Medicine	0.5 - 1	0.5 - 1	1, 2 a,b,c
Epidemiology	0.5 - 1	0.5 - 1	1, 2 a,b,c
Toxicology	0.5 - 1	0.5 - 1	1, 2 a,b,c
Ship Repair/Maintenance	2 - 3	2 - 3	3, 6 a,b,c
Aircraft Repair/Maintenance	2 - 3	2 - 3	3, 6 a,b,c
Facilities Construction/Maintenance	2 - 3	2 - 3	3, 6 a,b,c
Environmental	2 - 3	2 - 3	3, 6 a,b,c
Transportation	2 - 3	2 - 3	3, 6 a,b,c
Engineering/Contracts	2 - 3	2 - 3	3, 6, 8, 9 a,b,c
Materials/Supplies	1 - 2	1 - 2	3, 6 a,b,c
Shipboard/Afloat Programs	2 - 3	2 - 3	3, 6 a,b,c
Administrative Command	1 - 2	1 - 2	3, 6 a,b,c
Utilities	2 - 3	2 - 3	3, 6 a,b,c

FUNCTIONAL ELEMENT	LENGTH (In days)		KSA Exposure (Table 3-1)
	Industrial Hygienist	Industrial Hygiene Technician	
Medical/Dental	1 - 2	1 - 2	3, 6 a,b,c

This table represents 5% of the first two years of development

**TABLE 3-4
FORMAL TRAINING SUBJECT MATTER LIST**

SUBJECT MATTER	LENGTH (in weeks)	KSA EXPOSURE (TABLE 3-1)
Workplace Monitoring	2	3, 8 a
Fundamentals of Industrial Hygiene	1	3, 6, 8 a
Automated Data Processing (MS Office, DOEHRs-IH)	2 - 3	4, 10 a
Ventilation	1	3, 8, 9 a
Respiratory Protection	1	1, 2, 3, 7, 8 a
Industrial Hygiene Engineering	2	8, 9 a
Noise	1 - 2	2, 3, 6, 7, 8 a
Toxicology	1	3, 6, 7, 8 a
Exposure Assessment/Risk Assessment	1	6, 7 a
Hazardous Materials	1	1, 2, 3, 6, 7, 8, 9 a
Ergonomics	1	1, 2, 3, 7, 8, 9 a
Non-Ionizing Radiation	1	1, 2, 3, 7, 8, 9 a

SUBJECT MATTER	LENGTH (in weeks)	KSA EXPOSURE (TABLE 3-1)
Mishap Investigation *	1	7 a
Lead Abatement	1	1, 2, 3, 6, 7, 8, 9 a
Indoor Air Quality	0.5 - 1	1, 2, 3, 7, 8 a, 9
Occupational Safety and Health Law/Legal Concerns	1	1, 2, 3, 4, 5, 6, 7, 8, 9, 10 a
Asbestos Supervisor, Inspector, Project Designer	3	1, 2, 3, 6, 7, 8, 9 a
Comprehensive Industrial Hygiene Review	1	1, 2, 3, 4, 5, 6, 7, 8, 9 a, 10
Industrial Hygiene Measurement Techniques	2	3 a
General Industry Standards	1	1, 2 a, 9
Risk Communication	0.5 -1	3, 4, 5, 7 a
Laboratory Safety and Health	1	1, 3, 6, 7, 8, 9 a
Statistical Analysis	1	6 a
Training Techniques and Methods	1	5 a
Safety and Health in the Healthcare Setting	1	1, 2, 3, 6, 7, 8, 9 a

* Mandatory to conduct Class A, B or C mishap investigations.

**TABLE 3-5
FORMAL TRAINING REQUIREMENTS FOR PROGRAM MANAGEMENT
AND SPECIALIZED AREAS**

PROGRAM /SPECIALIZED AREA	REFERENCE	TRAINING REQUIRED
Asbestos Program Manager	OPNAV 5100.23 (series), Chapter 17	3 day Abatement Project Designer Course*; 2 day Asbestos Inspector/Management Planner Course* and; Naval Facilities Engineering Service Center Asbestos Program Manager Course (Accreditation as Asbestos Inspector required as prerequisite)
Asbestos Sampling	29 CFR 1926.1101	3 day Asbestos Inspector Course*(A-493-0014)
Analysis of Bulk Asbestos	29 CFR 1910.1001	Analysis of bulk asbestos samples (B-322-2334)
Review of Asbestos Projects	40 CFR 763.92	3 day Abatement Project Designer Course*
Analysis of Airborne Samples	29 CFR 1910.1001	5 day NIOSH 582 course or equivalent Course (B-322-2333). PAT round accreditation

PROGRAM/SPECIALIZED AREA	REFERENCE	TRAINING REQUIRED
Confined Space Entry Program Manager/Assistant Confined Space Entry Program Manager (CSPM/ACSPM) & Gas Free Engineer/Assistant Gas Free Engineer (GFE/AGFE)	OPNAVINST 5100.23 (series), Chapter 27 & NAVSEA S6470-AA-SAF 10	Confined Space Safety (A-493-0030)
Ergonomics Program Manager	OPNAVINST 5100.23 (series), Chapter 23	Ergonomics
Hazardous Materials Control & Management (HMC&M) Program	OPNAV 5100.23 (series), Chapter 7	Introduction to Hazardous Materials (A-493-0031)
Laser Systems Safety Officer (LSSO) Category I (A-493-0038) Category II (A-493-0067) dependent on laser classification	OPNAV 5100.23 (series), Chapter 22 OPNAVINST 5100.27/MCO 5104.1 (series)	Minimum requirement to be qualified to serve in the billet as a LSSO is the Administrative Laser Safety Officer Certification. Minimum requirement to be qualified to serve in the billet as RLSO is the Technical Laser Safety Officer Certification See http://www.navylasersafety.com for the appropriate course or email: lasersafety@navy.mil (Note: Refresher training is required if technical training is not used within 1 year of certification. Recertification is required every four years.

Radiation Safety Officer (Ionizing) and Assistant Radiation Safety Officer (RSO/ARSO)	NAVSEA S0420-AA-RAD-010	Radiation Safety Officer (S-4J-0016). For X-ray radiography must take the X-ray Radiation Safety Course (S-491-0016) in addition to the Radiation Safety Officer Course.
Respiratory Protection Program Manager	OPNAVINST 5100.23 Series, Chapter 15	Respiratory Protection Program Management (A-493-0072 or equivalent)

* Annual refresher training required

**TABLE 3-6
INDUSTRIAL HYGIENE OFFICER TRAINING**

Ensign through Lieutenant

FUNCTIONAL AREA	REFERENCE	TRAINING REQUIRED
Respiratory Protection Officer	OPNAVINST 5100.19 (series), Chapter B6 & OPNAV 5100.23 (series), Chap 15	Respiratory Protection Program Manager (A-493-0072 or equivalent)
IMA Asbestos Removal	OPNAVINST 5100.19 (series), Chapter B1	Asbestos Supervisor - Initial (A-493-0069)
Shipboard Asbestos Response	OPNAVINST 5100.19 (series), Chapter B1	Emergency Asbestos Response Team (A-760-2166) (Note: Required only if "Asbestos Supervisor" course has not been completed.)
Afloat Environmental Protection Officer	OPNAVINST 5090 (series)	Afloat Environmental Protection Coordinator Course (A-4J-0021)
Bulk Asbestos Identification	OPNAVINST 5100.19 (series), Chapter B1	Analysis of Bulk Asbestos Samples (B-322-2334)
Radiation Safety Officer/ X-Ray Radiography	NAVSEA S0420-AA-RAD-010	Radiation Safety Officer (S-4J-0016). For X-ray radiography must take the X-ray Radiation Safety Course (S-491-0016) in addition to the Radiation Safety Officer Course.

FUNCTIONAL AREA	REFERENCE	TRAINING REQUIRED
Afloat Safety Officer	OPNAVINST 5100.19 (series), Chapter A7	Afloat Safety Officer's Course (A-4J-0020)
Asbestos Fiber Counting	OPNAVINST 5100.19 (series), Chapter B1	Analysis of Airborne Asbestos Samples (B-322-2333)
Basic Medical Department Officer Course		www.NKO.navy.mil
Division Officer	OPNAVINST 5100.19 (Series), Chapter A7	Division Officer School
Laser Systems Safety Officer (LSSO) Category I (A-493-0038) Category II (A-493-0067) dependent on laser classification	OPNAV 5100.23 (series), Chapter 22 OPNAVINST 5100.27/MCO 5104.1 (series)	<p>Minimum requirement to be qualified to serve in the billet as a LSSO is the Administrative Laser Safety Officer Certification.</p> <p>Minimum requirement to be qualified to serve in the billet as RLSO is the Technical Laser Safety Officer Certification</p> <p>See http://www.navylasersafety.com for the appropriate course or email: lasersafety@navy.mil (Note: Refresher training is required if technical training is not used within 1 year of certification. Recertification is required every four years.</p>

CHAPTER 4
CAREER DEVELOPMENT PLAN FOR SAFETY AND OCCUPATIONAL HEALTH
MANAGERS AND SUPERVISORY INDUSTRIAL HYGIENISTS (MANAGERS)

1. Introduction. The CDP provided in this chapter identifies assignments, orientations and formal training considered necessary to achieve the knowledge, skills and abilities (KSA's) deemed important for safety and occupational health managers and supervisory industrial hygienists. Completion of these CDP guidelines will provide personnel with the basic background to become effective managers. In addition to typical safety and industrial hygiene programs development, emphasis is placed on development of interpersonal and management skills necessary to manage occupational safety and health programs and personnel. The CDP is applicable to GS-018, GS-803, and GS-690 series. These guidelines may also be used to develop plans for military personnel in the equivalent positions with NOBC's 0862, 2740, 8656 and 8995.

2. Management Scope. Managers serve as the technical expert to the Commander/Commanding Officer/Officer in Charge (here-in-after referred to as Commanding Officer) for safety and occupational health matters. They keep the Commanding Officer advised of the overall status of programs at the activity and the effectiveness of mishap and exposure reduction goals and objectives. The manager is responsible for the management, administration, and day to day operation of a safety and occupational health program and performance of administrative work associated with safety/occupational health activities. This includes the development, implementation, and evaluation of related program functions. Managers must work closely with senior and junior management and bargaining unit officials in order to ensure that programs are implemented in accordance with mandated requirements. In addition, the managers are responsible for the overall accomplishment of safety and occupational health programs which may involve the public or contractor personnel at government facilities or using government property.

3. Functions Performed by Managers. Managers are expected to effectively perform the following tasks in varying degrees of magnitude depending on the nature, size and scope of their organization:

a. Develop an effective and comprehensive plan for safety and occupational health consistent with the activity mission and supported by management with needed personnel and resources. This involves the development of policy and procedural

guidelines for safety and occupational health; the design and implementation of a safety and occupational health organizational structure that enables the attainment of desired program goals; development of systems to identify cost savings and other benefits of a strong, effective safety and occupational health program; and control of a safety and occupational health program through the application of sound management principles and practices.

b. Formulate and execute policy, programs and priorities for assuring safe and healthful working conditions in the private and public sectors.

c. Establish and evaluate occupational safety and health standards; encourage, assist, and monitor the development and operation of programs to assure safety and healthful working conditions; and encourage labor and management efforts to reduce occupational injuries and diseases arising out of employment.

d. Achievement of compliance with the intent of safety and occupational health legislation and related standards, orders, rules, and regulations; safety and occupational health managers identify and, where possible, contribute to proposed legislation.

e. Identify and implement procedures needed in purchase, storage, process, alteration, repair, and salvage operations to assure the inclusion of countermeasures for potential accident and illness related losses. This necessitates continuous cooperation with the program managers responsible for functions such as personnel, supply, engineering, maintenance, budgeting, and medical services.

f. Determination of employee and supervisor training and education resources to reduce or eliminate potential accident related loss and the establishment of procedures to accomplish this objective. This requires the analysis of accident and illness data; applicable legislation; and job hazards to design appropriate education activities; and work with personnel management specialists to review employee training requirements and to provide appropriate training.

g. Identify and evaluate human factors that may have undesirable influences on the achievement of safety and occupational health objectives which involve cooperation with other occupational specialists to assist employees with physical

and social difficulties to successfully adjust to working conditions and practices.

h. Develop and implement internal and external emergency response plans, procedural manuals, employee education, and the planning and monitoring of mishap drills and ensuring the availability of emergency response and care services.

i. The assessment, regulation and preservation of environmental conditions to minimize adverse effects of safety and occupational health of individuals; inspection of the work area to identify and eliminate unsafe and/or unhealthful working conditions and to determine compliance with Federal, DoD, and Navy safety and occupational health standards; the establishment of a comprehensive inspection program (including formal, special, and incidental inspections) that provides a continuing flow of environmental safety information.

j. The analysis of individual and machine-performed activities for performing accident related loss potential; analyze work tasks to determine existing or potentially hazardous situations.

k. The improvement of surveillance and monitoring techniques related to hazard control and loss minimization to include engineering controls such as substitution, isolation or guarding, administrative controls, and use of personal protective equipment.

l. The development and utilization of procedures for measuring, reporting, evaluating, and researching safety and occupational health data. Development of plans, schedules, and forms for collecting such required data.

m. The formulation of techniques for determining the effectiveness of safety and occupational health efforts on a continuing basis.

n. Establishment of the activity industrial hygiene program to include medical surveillance, workplace monitoring, annual surveys, etc.

o. Formulation, submission, and tracking of budgets; identification of staffing requirements necessary to accomplish objectives and regulatory requirements; knowledge of EEO procedures; direct and indirect technical and administrative supervision of personnel; timely preparation and submittal of

personnel performance evaluations; resolution of personnel disagreements and grievances; and other typical management functions.

4. Knowledge, Skills and Abilities (KSA's) Required to Perform Management Functional Tasks. Table 4-1 describes the KSA's considered necessary to perform the functions discussed in section 3 above.

5. Description of Safety Manager/Supervisory Industrial Hygienists Positions. Navy civilian safety managers and supervisory industrial hygienists are responsible for the overall accomplishment of safety and occupational health programs, supervision of assigned personnel, and accomplishment of management responsibilities associated with safety and occupational health programs. The extent of these responsibilities may vary greatly dependent on the size and mission of the activity and specific operations and/or geographical areas involved. Safety management and supervisory industrial hygienist positions included in the CDP are the GS-0018, Safety and Occupational Health Manager; GS-0018, Supervisory Safety and Occupational Health Specialist; GS-0803, Safety Engineer; GS-0690, Industrial Hygiene and Safety Manager; and GS-0690, Supervisory Industrial Hygienist.

6. Development Plan. This plan is designed to develop management skills necessary to become an effective safety manager or supervisory industrial hygienist. The CDP is based on the assumption that the manager has completed the primary training and OJT objectives described in Chapters 2 or 3 of this publication. The plan identifies additional training and experience which will develop the individual's management skills in order to effectively carry out a manager's responsibilities. Variations to the plan should be defined in specific Individual Development Plans (IDP) to accommodate command and individual requirements. Some development may have been accomplished through previous experience and academic training and should be considered in development of the manager. The plan should be phased into the IDP for junior personnel at the GS-9 level and above. For personnel in safety manager and supervisory industrial hygienist positions, this plan identifies the training and experience needed to continually enhance management skills. Table 4-2 lists formal training and KSA accomplishment. Appendix B provides a matrix of formal training sources.

TABLE 4-1
KNOWLEDGE, SKILLS AND ABILITIES (KSA's)

FUNCTION 1: Navy organization, management systems, and environments.		
a. <u>Knowledge</u> of management and organization principles and of the various functions in Navy environments. - Knowledge of Safety Management system (e.g. PRM&S, etc)	b. <u>Skill</u> in communicating effectively with senior management, technical, supervisory and other employees.	c. <u>Ability</u> to adapt management practices to organizational needs and methods and into the operational management of the activity.
FUNCTION 2: Overall management.		
a. <u>Knowledge</u> of the principles, practices, policies and legal aspects of management and contract management.	b. <u>Skill</u> to interpret, develop, enforce, prepare or evaluate instructions, publications, reports, etc.	c. <u>Ability</u> to work independently and with other management staff, initiate and monitor actions, and to integrate direction and guidance from multiple sources.
FUNCTION 3: Evaluate accomplishment of goals and objectives.		
a. <u>Knowledge</u> of broad range of safety and occupational health principles, methods and evaluation techniques including individual and organizational goal setting, business strategies and plans.	b. <u>Skill</u> in developing measures to eliminate or control hazards and effectively communicate the evaluation results.	c. <u>Ability</u> to objectively evaluate overall program effectiveness, report findings and determine improvement strategies.

<p>FUNCTION 4: Formulate, implement, maintain or modify safety and occupational health programs.</p>		
<p>a. <u>Knowledge</u> of broad range of Federal, DOD, Navy SOH standards and national safety consensus standards.</p>	<p>b. <u>Skill</u> in development of effective, comprehensive plans.</p>	<p>c. <u>Ability</u> to formulate and execute policy, programs or priorities for maintenance of a safe and healthful workplace.</p>
<p>FUNCTION 5: Personnel management/development.</p>		
<p>a. <u>Knowledge</u> of personnel procedures, duties and responsibilities of Supervisor, identification of training needs and human behavior.</p>	<p>b. <u>Skill</u> in effective personnel management and personnel development.</p>	<p>c. <u>Ability</u> to effectively manage and supervise personnel resources assigned to the safety and/or industrial hygiene offices and to determine personnel development needs.</p>
<p>FUNCTION 6: Resource Management.</p>		
<p>a. <u>Knowledge</u> of Navy budgeting procedures and policies, staffing and billet procedures, and contracting procedures.</p>	<p>b. <u>Skill</u> in budget compilation, preparation and adherence, staffing reports and justifications, and developing statement of work and contract management.</p>	<p>c. <u>Ability</u> to accurately determine current and long term budget needs and prepare budget submittal, and manpower resources.</p>

FUNCTION 7: Prepare reports and presentations for activity level and higher echelons.

a. Knowledge of Navy administration procedures, report writing and presentations.

b. Skill in written and verbal communication.

c. Ability to prepare concise written reports and graphic presentations.

**TABLE 4-2
FORMAL TRAINING SUBJECT MATTER LIST**

SUBJECT MATTER	LENGTH (in days)	KSA EXPOSURE (Table 4-1)
Occupational Safety & Health Management	3 - 5	1, 2a, 3a
Safety Management Fundamentals	3 - 5	2a, 3a, 4a
Safety Program Management & Evaluation	3 - 5	2a, 3a, 4a
Management Skills & Techniques	3	2a, 3a
Hazardous Substance & Incident Response Management	5	1a, 4a
Occupational Safety & Health & Environmental Law	3 - 5	2a, 4a
Safety Appraisal	5	3a, 4a
Risk Management	5	1a, 2a, 3a, 4a
Civilian Personnel Procedures	1	5a
Understanding Human Behavior	3	5a
Statistics for Managers	VARIES	2a, 3a, 4a, 7a
Accounting Principles	10	6a
Oral Presentations & Written Communications	2	1c, 2c, 4c, 7a, 7c
Briefing Techniques	3	7a

SUBJECT MATTER	LENGTH (in days)	KSA EXPOSURE (Table 4-1)
Computer Applications	2 - 5	2a, 3a, 4a, 6a, 7a
Safety Psychology	5	2a, 3a, 4a, 5a
Risk Management	5	2a, 3a, 4a, 7a

CHAPTER 5
INDIVIDUAL DEVELOPMENT PLANS

1. Purpose. An Individual Development Plan (IDP) is required for each individual to integrate the individual's qualifications with developmental plan requirements and guidelines (Chapters 2-4). The plan should define specific assignments, orientation, and training for the first or current year, with draft developmental outlines for the next two years. The purpose of the long term plan is to assure planning, budgeting and programming in accordance with the career development program and to facilitate individual completion of program requirements. The IDP will be written to take an intern completely to the journeyman level which is GS-9 for the Safety Technician GS-0019 and to the GS-11 level for the Safety Specialist GS-0018.

2. Preparation. Appendix A provides a sample IDP. Appendix A-1 is a blank IDP for use if desired. The IDP will be drafted by the manager/supervisor and processed in accordance with local procedures.

a. The plan will define length of time for each learning objective. Based on the individual's education and experience, the plan will emphasize areas in which the individual has the least experience or knowledge.

b. Once approved, the supervisor is responsible for assuring plan execution. The plan will be updated/revised each year.

3. Classroom Training. The manager/supervisor will target and schedule classroom training to meet developmental plan guides using Appendix B, other available training schedules, and local college, university or training school schedules. The employee's past training and experience, as well as availability and cost should be utilized in planning.

4. Funding. Funding will come out of local budgets. It will be up to the manager/supervisor to initiate appropriate planning, programming, and funding.

APPENDIX A

<p>INDIVIDUAL DEVELOPMENT PLAN</p>	<p>EMPLOYEE'S NAME: Doe, John R.</p>	<p>SSN: 000-00-0000</p>
<p>PRIVACY ACT STATEMENT GENERAL-This information is provided pursuant to Public Law 93-570 (Privacy Act of 1974) Authority-Government Employees Training Act of 1958 (US Code, Title 5, sec 4101 to 4118) Purpose and Uses-The information is used in the administration of the Federal Training Program. The purpose of this form is to document the nomination of trainees and completion of training and it serves as the principal repository of personal, fiscal and administrative information about trainees and the programs to which they participate. The form becomes part of the permanent employment record of the participants in training programs and is included in the Government's Personnel Data File. Effects of Nondisclosure-Personal information provided on this form is given on a voluntary basis. Failure to provide this information, however, may result in ineligibility for participation in training programs.</p>	<p>SERIES/GRADE: GS-0018-00 Safety & Occupational Health Specialist RATE/RANK:</p>	<p>ORGANIZATIONAL CODE: Chief of Naval Education & Training LOCATION: Training Performance Evaluation Board</p>
	<p>LEADERSHIP/MANAGEMENT TRAINING DESIRED (Y/N)? YES</p>	<p>PHONE:</p>
	<p>SHORT TERM GOALS: Improve performance in present position.</p>	

TRAINING:	COMPLETED (X)	PRIORITY (1,2,3)	DEVELOPMENTAL ASSIGNMENTS
1. Hazardous Materials (A-493-0031)		1	a. Serve as member of training safety and firefighting review team. FY10-11
2. Basic Explosives Safety (S-000- 0025)		1	b. Observe explosive safety inspection at field activity FY10
3. Machinery /Machine Guarding (S-493- 0001)		1	c. Provide advice/assistance relative to revision of: OPNAVINST 1500.75 CNETINST 1500.20C
4. Electrical Safety		1	d. Conduct explosive safety inspection at field activity FY10
REMARKS: This IDP is a two year development plan covering FYXX-XX			
EMPLOYEE'S SIGNATURE:	DATE:	IMMEDIATE SUPERVISOR'S SIGNATURE:	DATE:

APPENDIX A-1

<p>INDIVIDUAL DEVELOPMENT PLAN</p>	<p>EMPLOYEE'S NAME :</p>	<p>SSN :</p>
<p>PRIVACY ACT STATEMENT GENERAL-This information is provided pursuant to Public Law 93-570 (Privacy Act of 1974) Authority-Government Employees Training Act of 1958 (US Code, Title 5, sec 4101 to 4118) Purpose and Uses-The information is used in the administration of the Federal Training Program. The purpose of this form is to document the nomination of trainees and completion of training, and it serves as the principal repository of personal, fiscal and administrative information about trainees and the programs to which they participate. The form becomes part of the permanent employment record of the participants in training programs and is included in the Government's Personnel Data File. Effects of Nondisclosure- Personal information provided on this form is given on a voluntary basis. Failure to provide this information, however, may result in ineligibility for participation in training programs.</p>	<p>SERIES/GRADE : RATE/RANK :</p>	
	<p>ORGANIZATIONAL CODE : LOCATION :</p>	
	<table border="1"> <tr> <td> <p>LEADERSHIP/MANAGEMENT TRAINING DESIRED (Y/N)?</p> </td> <td> <p>PHONE :</p> </td> </tr> </table>	<p>LEADERSHIP/MANAGEMENT TRAINING DESIRED (Y/N)?</p>
<p>LEADERSHIP/MANAGEMENT TRAINING DESIRED (Y/N)?</p>	<p>PHONE :</p>	

SHORT TERM GOALS :			
TRAINING :	COMPLETED (X)	PRIORITY (1 , 2 , 3)	DEVELOPMENTAL ASSIGNMENTS
REMARKS :			
EMPLOYEE ' S SIGNATURE :	DATE :	IMMEDIATE SUPERVISOR ' S SIGNATURE :	DATE :

**APPENDIX B
SUBJECT MATTER TRAINING RESOURCE MATRIX**

SUBJECT	NAVSAFENVTRACEN	OSHATI	OTHER GOVT (see footnote)	LOCAL COLLEGE or COMM VENDOR
Accounting Principles			10	X
Advanced Health Care Safety				* X
Advanced Management Concepts			10	* X
Applied Industrial Hygiene				* X
Applied Industrial Toxicology				* X
Afloat Environmental Protection Coordinator	X			
Afloat Hazardous Material Coordinator	X			
Afloat Safety Officer			11	
Asbestos Program Manager			8	

SUBJECT	NAVSAF'ENVTRACEN	OSHATI	OTHER GOVT (see footnote)	LOCAL COLLEGE or COMM VENDOR
Asbestos Inspector	X		4,9	X
Asbestos Management Planner	X		4,9	X
Asbestos Project Designer	X		4,9	X
Analysis of Airborne Asbestos Samples			4,7,9	X
Analysis of Bulk Asbestos Samples			4,7,9	X
Associate Safety Professional (ASP) Preparation Course				* X
Basics of Naval Explosives Hazard Control			1	
Briefing Techniques			10	X
Confined Space Entry	X	X	9	X

SUBJECT	NAVSAFENVTRACEN	OSHATI	OTHER GOVT (see footnote)	LOCAL COLLEGE or COMM VENDOR
Comprehensive Industrial Hygiene Review				X
Construction Safety Standards	X	X		X
Cranes & Material Handling		X		X
Certification Review (CSP/CIH) Preparation Courses				X
Division Officer School			11	
Ergonomics	X			X
Electrical Safety		X	9	X
Electrical Standards	X	X	9	X
Essentials of Safety Mgmt				* X

SUBJECT	NAVSAF'ENVTRACEN	OSHATI	OTHER GOVT (see footnote)	LOCAL COLLEGE or COMM VENDOR
Explosives Safety for Naval Facility Planning			1	
Explosives Safety for Officer, Managers & Supervisors			1	
IH Exposure Assessment			7	X
Fall Protection	X	X		X
Fire Protection & Life Safety	X	X		X
Fundamentals of Industrial Hygiene		X		* X
General Industry Standards	X	X		X
Hazard Control & Prevention		X		X

SUBJECT	NAVSAFENVTRACEN	OSHATI	OTHER GOVT (see footnote)	LOCAL COLLEGE or COMM VENDOR
Hazardous Waste Operations (HAZWOPER)	X		4,9	X
Hazardous Substance Incident Response & Management	X		4,9	X
Health & Safety in Health Care Settings			9	* X
Hospital Occupational Health			9	* X
Indoor Air Quality			9	* X
Industrial Hygiene Engineering				X
Industrial Hygiene in the Hospital Setting			9	* X

SUBJECT	NAVSAF'ENVTRACEN	OSHATI	OTHER GOVT (see footnote)	LOCAL COLLEGE or COMM VENDOR
Industrial Hygiene Measurements			9	* X
Industrial & Occupational Toxicology			9	* X
Industrial Ventilation Design & Testing			8,9	* X
Introduction to Hazardous Materials (Ashore)	X			
Introduction to Industrial Hygiene for Safety Prof.	X	X		
Laser System Safety Officer			5	
Legal Aspects Of OSH				* X
Legal Aspects of Safety & Environmental Mgmt				* X
Legal & Ethical Issues in OSH				* X

SUBJECT	NAVSAFENVTRACEN	OSHATI	OTHER GOVT (see footnote)	LOCAL COLLEGE or COMM VENDOR
Legal Concerns of SOH Professionals				* X
Machinery & Machine Guarding	X	X		X
Management & Admin Skills for the SOH Professional				* X
Management Techniques			9	* X
Math & Science for SOH Professionals				* X
Automated Data Processing (MS Office)				X
Mishap Investigation & Prevention	X	X	3	X
Mishap Recordkeeping Seminar	X			
NAVOSH Standards	X			

SUBJECT	NAVSAF'ENVTRACEN	OSHATI	OTHER GOVT (see footnote)	LOCAL COLLEGE or COMM VENDOR
Non-ionizing Radiation			9	* X
Occupational Health & Safety Technologist (OHST) Preparation Course				X
Occupational Health Program Management			9	* X
Occupational Safety in the Health Care Settings			9	* X
Operational Risk Management	NSC		2,12	
Oral Presentations & Written Communications				X
Practical Statistics				* X
Principles of Industrial Hygiene			9	* X

SUBJECT	NAVSAFENVTRACEN	OShati	OTHER GOVT (see footnote)	LOCAL COLLEGE or COMM VENDOR
Radiation Safety Officer			6	
Radio Frequency & Microwave Radiation Safety			9	* X
Respiratory Protection Program Manager	X	X		
Risk Assessment				* X
Safety Certification Review				* X
Safety Programs Afloat	X			
Submarine Safety Officer	X			
Survey of Industrial Hygiene			9	* X
Safety Psychology				* X

SUBJECT	NAVSAFENVTRACEN	OShati	OTHER GOVT (see footnote)	LOCAL COLLEGE or COMM VENDOR
Statistics for Managers				* X
Statistical Analysis				* X
Shipboard Asbestos Emergency Response	X			
TLSO			5	
Understanding Human Behavior			10	X
Workplace Monitoring			7	

- 1 - ARMY DEFENSE AMMUNITIONS CENTER AND SCHOOL
- 2 - ARMY SAFETY CENTER/ARMY MATERIAL COMMAND/ARMY CORPS OF ENGINEERS
- 3 - DEPT OF TRANSPORTATION SAFETY INSTITUTE
- 4 - ENVIRONMENTAL PROTECTION AGENCY/EDUCATION RESOURCE CENTERS
- 5 - NSWC DAHLGREN DIVISION
- 6 - NAVAL SEA SYSTEMS COMMAND DETACHMENT RADIOLOGICAL AFFAIRS SUPPORT ACTIVITY
- 7 - NAVY AND MARINECORPS PUBLIC HEALTH CENTER
- 8 - NAVAL FACILITIES ENGINEERING SERVICE CENTER, PORT HUENEME
- 9 - NIOSH/EDUCATION RESOURCE CENTERS
- 10 - OFFICE of PERSONNEL MANAGEMENT
- 11 - SURFACE WARFARE OFFICERS SCHOOL, NEWPORT, RI
- 12 - NAVAL SAFETY CENTER

For information on approved commercial courses, contact the servicing HRO training officer. Course titles may vary dependent on source of training.

* Tuition assistance available for GS-0018 on a first come, first serve basis via NAVSAFENVTRACEN.