

FOREWORD

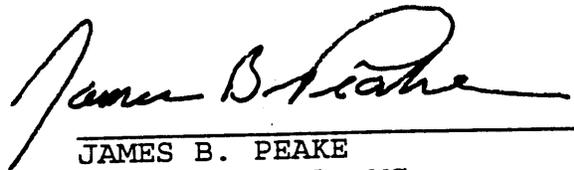
This Army Civilian Training, Education and Development System (ACTEDS) plan for the Industrial Hygienist and the Industrial Hygiene Technician provides careerists and management with a guide to assist in career enhancement and progression. Training and development planning is essential in developing and enhancing an individual's knowledge, skills, and abilities. This plan, if followed, will provide all Industrial Hygiene personnel the avenue to become more proficient in their field.

Industrial Hygiene personnel and their supervisors and managers are encouraged to review this ACTEDS plan and tailor it to their needs. Although individuals ultimately control their own careers, all levels of command share in the responsibility of implementing guidance contained in this plan. This will help to ensure a continuing source of highly qualified Industrial Hygiene personnel for the Department of the Army.

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ARMY CIVILIAN TRAINING, EDUCATION AND DEVELOPMENT SYSTEM PLAN

INDUSTRIAL HYGIENIST - OCCUPATIONAL SERIES 0690 AND INDUSTRIAL HYGIENE TECHNICIAN - OCCUPATIONAL SERIES 0640 (Career Field 53)

Summary. This document describes the ACTEDS plan for both the Industrial Hygienist (IH) and the Industrial Hygiene Technician (IHT). It includes a listing of the objectives, structure, key positions, career paths, and training, education, and developmental opportunities which enhance the careerist's capability to perform and advance. This plan describes separately the IH community and the IHT community in detail.

Interim changes. Interim changes will be distributed as required to update information contained in this document.

Suggested improvements. The proponent agency for this document is the U.S. Army Medical Department Center and School (AMEDDC&S). Users are invited to send comments and suggested improvements on DA Form 2028 (Recommended Changes to Publications and Blank Forms) directly to Commander, AMEDDC&S, AMEDD Personnel Proponent Directorate, ATTN: MCCA-DC, 1400 East Grayson Street, Fort Sam Houston, TX 78234-6175.

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ARMY CIVILIAN TRAINING, EDUCATION AND DEVELOPMENT SYSTEM PLAN

INDUSTRIAL HYGIENIST - OCCUPATIONAL SERIES 0690 AND INDUSTRIAL HYGIENE TECHNICIAN - OCCUPATIONAL SERIES 0640 (Career Field 53)

1. INTRODUCTION. This ACTEDS plan for the IH and the IHT is a Department of the Army (DA) program which provides a progressive and sequential framework for developing the technical, managerial, and professional skills required of the U.S. Army's civilian workforce in the IH community. It mirrors what the Army does to guide military personnel throughout their careers. This ACTEDS plan for the IH and IHT provides careerists and management with a guide to assist in career enhancement and progression. It includes a listing of the objectives, structure, key positions, competencies, career paths, recruitment strategies and sources, and the training, education, and developmental opportunities which enhance the careerist's capability to perform and advance within the IH community. Training and development planning is essential in developing and enhancing the employees knowledge, skills, and abilities (KSAs), and this plan, if followed, will provide the IH and the IHT the avenue to become more proficient in the IH field, benefiting the Army, the local military organization, and the employee.

2. OBJECTIVES.

a. Provide continuous broad-based (technical and managerial) training and development throughout an individual's employment.

b. Provide and document an individual's training and practical experience to ensure competence in the various aspects of IH.

c. Aid in the recruitment and retention of quality personnel by outlining the numerous training and career advancement opportunities offered by DA.

3. STRUCTURE. Development, coordination, implementation, and management of this plan is the shared responsibility of the proponent, the Functional Chief (FC), and the Functional Chief Representative (FCR). The proponent for IH is The Surgeon General (TSG) of the U.S. Army. The FC for IHs and IHTs is the Medical Service Corps Chief. The FC will designate a senior official holding a top-level position in IH to be the DA FCR for the Army IHs and IHTs. In turn, the DA FCR will designate individuals in key positions within the IH community to serve as subject-matter experts (SMEs). This plan applies to all civilian employees of DA working in the field of IH, regardless of the level at which they were hired and the organization or agency to which they are assigned or attached.

4. KEY POSITIONS. (Appendix A)

Key positions are top positions in IH which establish and/or interpret policy, plans, and strategy. Key positions shown at Appendix A are divided into major categories representing common career progression pathways. They are the U.S. Army Center for Health Promotion and Preventive Medicine (USACHPPM), the U.S. Army Corps of Engineers (USACE), the separate Installations; the National Guard Bureau (NGB), the U.S. Army Materiel Command (AMC), Edgewood Research, Development and Engineering Center (ERDEC), the U.S. Army Environmental Center (USAEC), and the Program Manager for Chemical Demilitarization (PMCD). Crossovers between categories are encouraged, particularly early in the IH's career development pattern.

5. RESPONSIBILITIES.

a. Management. The DA FCR will have operational responsibility for the administration of the IH and the IHT occupational series. Responsibilities include:

(1) Assisting the personnel proponent office in the preparation of career management regulations by providing advice on career patterns; identifying KSAs required for specific job categories; identifying training and development needs; and recommending functional courses and equivalencies for the enhancement of the IH employee.

(2) Establishing and chairing the DA IH Career Planning Board and assisting in the selection of participants for the planning boards.

(3) Selecting SMEs to participate in job analysis, establishing evaluation criteria, and rating applicants for referral.

(4) Monitoring affirmative action goals and equal employment opportunity (EEO) progress.

(5) Assisting TSG in estimating IH trainee needs and ensuring that the Master Training Plan (MTP) is adequate.

(6) Assisting TSG in establishing standards for selection of IH training sites.

b. Installation. The local installation IH program administrator's implementation responsibilities include informing the DA FCR of:

(1) planned career input requirements,

(2) budget needs,

(3) distribution of funds,

- (4) management of spaces, and
- (5) credentialing, privileging, and licensure requirements.

c. Employee. Each employee is responsible for assisting management in establishing their personal career plan and must demonstrate the interest, enthusiasm, and initiative required to achieve the stated objectives. Each employee who wishes to take full advantage of the program is expected to accept cross-training assignments for developmental purposes.

6. COMPETENCIES. (Appendix B)

a. Competencies shown at Appendix B are the applicable KSAs for the various levels of IH employees in the performance of their assigned duties. Supervisors have the responsibility for the total career management of their employees; therefore, they must ensure that employees under their supervision possess, or are provided opportunities to obtain the required KSAs through formal and on-the-job training (OJT) during the year.

b. Equivalency credit may be granted for formal courses or OJT received from sources other than those listed in this plan. Applications for equivalency credit (Form WWWW-R, Appendix I) should be submitted to the DA FCR for evaluation and notification.

7. RECRUITMENT STRATEGIES AND SOURCES.

a. Recruitment Strategies.

(1) The planned recruitment of highly qualified or high potential personnel is essential to the development and maintenance of an effective IH program.

(2) Recruitment should be related to replacement needs projected on the basis of expected losses and planned expansions.

(3) Although primary hiring emphasis is generally placed on recruitment at the Entry Level, recruitment of quality individuals from various sources and placement in the appropriate Specialist and Senior Levels may also be accomplished.

(4) Recruitment and selection practices are designed to obtain the best qualified candidate for available positions.

(5) Recruitment brochures, literature, advertising, or other appropriate authorized publicity measures should be employed to support recruitment actions.

b. Recruitment Sources.

(1) College and university recruitment programs should be used as a means for identifying and attracting promising students as well as recruitment at professional conferences and job fairs.

(2) Individuals may also be brought into the IH occupational series by means of an installation Local Merit Promotion Plan/Program (an upward mobility program at most installations). This plan/program targets high-potential individuals with a background in IH who are currently DA employees in other occupational series, and have shown an interest in pursuing the positive educational requirements needed to qualify for the IH and IHT occupational series.

(3) Procedures of the Merit Promotion Program and appropriate labor agreements will apply in considering candidates who are current DA employees.

(4) Status candidates eligible for transfer, reassignment, or reinstatement to positions no higher than ones previously held.

(5) Competitive referrals.

(6) Non-status candidates from an Office of Personnel Management (OPM) certificate of eligibles or a certificate established by a delegated examining unit.

(7) Special placement assistance programs such as the Department of Defense (DOD) priority placement program.

8. MOBILITY REQUIREMENT.

Mobility is defined as geographic, organizational, and functional - either in CONUS or OCONUS. While many employees can achieve their career objectives in one geographical area, mobility is often a factor in achieving goals. Relocation may increase chances of acquiring broad-based management experience necessary for executive level vacancies. There may be a direct relationship between an employee's availability for varied geographic locations and his or her prospects for enhanced development and career advancement.

9. CAREER PATHS FOR THE IH. (Appendix C)

The career ladder for the IH represents two tracks: Leader and Specialist. There are three different pathways for progression in each of the two tracks. The three pathways represent three very different aspects of IH. The USACE career path concentrates on Civil Works and Hazardous, Toxic, and Radioactive Waste Sites. The Installation career path consists of the traditional IH mission at the installation. The Center for Health Promotion and Preventive Medicine (CHPPM) & Other career path is primarily concerned with standards promulgation and providing IH consultative services on a global basis. The solid lines shown at Appendix C depict the most likely routes of ascension to the higher grades. Crossover is encouraged at the lower levels.

10. MASTER TRAINING PLAN FOR THE IH. (Appendix D)

a. Employees enter the IH occupational series at various levels with varying degrees of preparation, capability, and potential for growth. For this reason, training identified for an employee should be based on formal training and OJT required for advancement as outlined in this ACTEDS plan. Broad-banded training are those courses and OJT which cover a spectrum of grade levels. This training may be completed at any level within the band, but should be completed prior to accession out of the band. Consideration should be given to any documented prior experience and training.

(1) The IH ACTEDS plan has divided training and development into two categories: Universal Training and Competitive Professional Development.

(a) Universal Training. Universal training requirements provide standardized KSAs across the occupational series to all employees who have similar duties and responsibilities. Universal training requirements are prioritized to assist commanders in planning and programming for training funds. Universal training priorities are as follows:

– Universal Mandatory, Priority I (U1) - Training that is typically a condition of employment, must be successfully completed within a specified time period, and meet one or more of the following criteria: (a) employee must have for acceptable performance; (b) training is essential for mission accomplishment; (c) training is mandated by higher authority (law or DOD), or is required for health, certification, or safety reasons; (d) training is mandated by ASA(M&RA) as an ACTEDS leader development core course; or (e) is essential, functional intern training.

– Universal Mandatory, Priority II (U2) - Training that should be successfully completed within a specified time period, but may be delayed if funding is not available, and should meet one or both of the following criteria: (a) employee should have for maximum proficiency; or (b) training improves the quality of mission accomplishment.

– Universal Recommended, Priority III (UR) - This training should be funded after Priority I and II requirements and should meet one or both of the following: (a) provides or enhances KSAs needed on the job; or (b) leads to improvement of mission accomplishment.

(b) Competitive Professional Development. This category includes developmental opportunities for which individuals are competitively selected. It covers competitive programs such as Senior Service Colleges, Fellowship Programs, the Army Management Staff College (AMSC), and multidisciplinary areawide competitive programs such as university programs, developmental assignments, and training-with-industry. This training is funded by either the major Army command (MACOM) or installation. The annual Catalog of Civilian Training, Education and Professional Development Opportunities, published by ASA(M&RA), contains specific information about current competitive development opportunities, along with all necessary procedural and application requirements.

(2) The ideal training program provides the opportunity for every employee to advance to the highest level of his/her capability. The most effective training and development activity for any Army civilian career employee will result from an appraisal/counseling interview which: (a) identifies training requirements; (b) systematically schedules the training needed to meet the requirements; and (c) takes greatest advantage of work situations and operating problems for OJT development purposes.

(3) A major element in the MTP is a goal-setting development plan, commonly referred to as an Individual Development Plan (IDP). An IDP, although no longer regulatory, serves as an ideal means to document and record the goal-setting development plan mutually agreed upon at the rater/supervisor counseling session. (A sample IDP is at Appendix J). It clearly identifies the training and OJT needed to improve the technical knowledge and skill of the employees and is updated annually.

(4) Development and rating methods of civilian employees are outlined and reported through the Total Army Performance Evaluation System (TAPES). The rater/supervisor, with the ratee's input, during counseling sessions, will assist the ratee in identifying the required training and/or professional development objective. Once identified, the training or developmental activities are recorded on the employee's Senior System Civilian Evaluation Report Support Form DA Form 7222-1, May 93).

(5) When an employee has completed a required phase of training, it must be documented by a competent individual officially designated by the FCR. The completed training will be noted in the IDP and TAPES, then filed in the employee's official personnel folder. Employees who demonstrate the ability to effectively handle increasingly complex assignments become more competitive for developmental assignments and advancement.

(6) Self-Development. In addition to the mandated training outlined in the MTP, employees at all levels are encouraged to undertake individual projects such as technical papers, presentations, and membership in professional organizations. These opportunities will increase their knowledge, improve competence in their area of interest, and offset any limitations identified in the career planning process. This is a voluntary effort initiated and conducted by the employee. Active interest in self-development generally indicates that an employee has a strong desire to achieve or exceed planned career goals. Information to help employees identify and plan relevant self-development activities can be found in the MTP. Employees will be encouraged to take advantage of: (a) available Army and other professionally relevant correspondence courses; (b) opportunities for study at nearby colleges or universities; (c) planning, reading, and discussion of emerging developments in the various aspects of IH; and (d) seminars, workshops, and meetings sponsored by professional IH organizations.

(7) Competitive Opportunities. Long-term training, above the bachelor level, is intended to expand and develop GS-11 through GS-15 careerists with educational opportunities above the bachelor level, and work experiences outside of their assigned organizations. These competitive opportunities are centrally funded in some cases and application is made and approved through the

DA FCR. They include formal courses and developmental assignments such as: (a) Army War College (AWC), (b) Legislative (LEGIS) Fellowship for Executive Development , (c) AMSC, (d) Master's degree and doctoral course work, (e) EPA/OSHA rotations, and (f) DA/OTSG rotations.

b. Training Levels.

(1) Entry Level Training: At the GS-05/07 level, the new employee generally requires OJT experience and technical training. Emphasis will be placed on training in:

- (a) IH fundamentals,
- (b) concepts of health hazard anticipation, recognition, evaluation, and control (abatement),
- (c) instrumentation application and techniques of inspection, and
- (d) sampling for a variety of contaminants.

Typical IH assignments at the Entry Level include, but are not limited to, initially participating as a team member on a survey; assisting in routine inspections or studies; and working on in-house technical/program support projects under the supervision of a senior IH. Participation in professional group activities is encouraged.

(2) Specialist Level Training: At the GS-09/11 level, the primary training focus is to increase the technical knowledge and skill of the employee. Secondly, emphasis will be placed on management and human relation skills, including training for personnel selected to fill supervisory positions. Work assignments are selected to add depth and breadth to their technical competence. Assignments at the Specialist Level include:

- (a) conducting studies and determining specific causes of employee illnesses on the job;
- (b) evaluating operations involving chemical and physical hazards to determine the proper course of action to eliminate or minimize employee exposure;
- (c) conducting engineering studies of ventilation systems designed to eliminate dusts, fumes, and mists from the work area;
- (d) observing unique processes;
- (e) serving as the technical focal point for program area projects; and
- (f) project management.

The IH's self-development activities at this level are accelerated and focused to ensure that these employees continue to add to their variety of experiences. Employees will continue to receive

progressive responsibilities for assignments and, as they progress, may be afforded the opportunity to exercise some supervisory authority. Graduate study, speaking and writing activities, and active participation in professional group activities are encouraged. Employees at the GS-09 level are encouraged to take the core examination from the American Board of Industrial Hygiene (ABIH) for the Industrial Hygienist in Training designation.

(3) Senior Specialist/Supervisory Training: At the GS-12/13 levels, the focus is placed on increasing the employee's competence in human relations and management concepts as well as specialized areas related to IH. Since most senior level positions require broad managerial knowledge and skill, the training activity will place special emphasis on management and human relations. Attendance at seminars, conferences, and advanced courses in professional development are some of the training requirements in this area. Graduate study, speaking and writing activities, temporary duty assignments, rotation of assignments, and participation in professional group activities will be encouraged. The IHs with at least 5 years of experience are encouraged to take the comprehensive examination from the ABIH for the Certified Industrial Hygienist designation.

(4) Master/Manager Level Training:

(a) Master Level IHs, GS-14s, are recognized as SMEs. They make decisions and recommendations that significantly affect the content, interpretation, and development of Army policies and programs concerning critical matters and major issues within the IH occupational series. They are assigned experiences/studies where limited guidance exists as to the method of evaluation for the potential experiences identified or, where possible, new experiences need to be identified for a new operation or new product. Training for these employees will be on topics that are emerging issues in the specialized aspects of IH as well as seminars and conferences where these topics are likely to be discussed. At this level, the employee must have a mastery of one or more specialty fields evidenced by: (1) application of new developments and theories to critical and novel problems, and (2) extension and modification of approaches and methods to solve a variety of problems with unconventional solutions.

(b) For GS-14s on the Leader Track, the emphasis will be placed more on the managerial aspects of IH than the mastery of particular technical topics. Developmental assignments for these employees may include rotations through other agencies as well as congressional exchanges.

(c) Master/Manager Level IHs, GS-15s on the Leader Track, are recognized as the operational and technical arm of both TSG and the Assistant Secretary of the Army for Installations, Logistics, and Environment in matters relating to IH. This position requires executive managerial skills, experience with worldwide technical service contracting, and professional competence in the sciences that support IH.

c. Application for Training. Application procedures for some civilian training courses are described in detail, for each available course, in the annual ASA(M&RA) Catalog of Civilian Training, Education and Professional Development Opportunities publication.

d. Affirmative Action / Equal Employment Opportunity. Training and development opportunities for participants covered by this plan will be provided without regard to race, color, sex, religion, national origin, nondisqualifying disabilities, or age.

11. CAREER PATHS FOR THE IHT. (Appendix E)

The career ladder for the IHT has two different pathways for progression. The two pathways represent different aspects of IH. The Installation career path consists of supporting the traditional IH mission at the installation. The USACHPPM/NGB career path is primarily concerned with supporting the IH services at the USACHPPM and NGB level. The solid lines shown at Appendix E depict the most likely routes of ascension to the higher grades. Crossover is encouraged at the lower levels.

12. MASTER TRAINING PLAN FOR THE IHT. (Appendix F)

a. Employees enter the IHT occupational series at various levels with varying degrees of preparation, capability, and potential for growth. For this reason, training identified for an employee should be based on formal training and OJT required for advancement as outlined in this plan. Broad-banded training are those courses and OJT which cover a spectrum of grade levels. This training may be completed at any level within the band, but should be completed prior to accession out of the band. Consideration should be given to any documented prior experience and training.

(1) Universal Training. Universal training requirements provide standardized KSAs across the occupational series to all employees who have similar duties and responsibilities. Training requirements are prioritized to assist commanders in planning and programming for training funds. Universal training priorities are as follows:

– Universal Mandatory, Priority I (U1) - Training that is typically a condition of employment must be successfully completed within a specified time period, and meets one or more of the following criteria: (a) employee must have for acceptable performance; (b) training is essential for mission accomplishment; (c) training is mandated by higher authority (law or DOD) or is required for health, certification, or safety reasons; (d) training is mandated by ASA(M&RA) as an ACTEDS leader development core course; or (e) is essential, functional intern training.

– Universal Mandatory, Priority II (U2) - Training that should be successfully completed within a specified time period, but may be delayed if funding is not available, and it should meet one or both of the following criteria: (a) employee should have for maximum proficiency; and/or (b) training improves the quality of mission accomplishment.

(2) The ideal training program provides the opportunity for every employee to advance to the highest level of his/her capability. The most effective training and development activity for any Army civilian career employee will result from an appraisal/counseling interview which (a) identifies training requirements; (b) systematically schedules the training needed to meet the requirements; and (c) takes greatest advantage of work situations and operating problems for OJT development purposes.

(3) A major element in the MTP is a goal-setting development plan, commonly referred to as an IDP. An IDP, although no longer regulatory, serves as an ideal means to document and record the goal-setting development plan mutually agreed upon at the rater/supervisor counseling session. (A sample IDP is at Appendix I). It clearly identifies the training and OJT needed to improve the technical knowledge and skill of the employees and is updated annually.

(4) Development and rating methods of civilian employees are outlined and reported through TAPES. The rater/supervisor, with the ratee's input (during counseling sessions), will assist the ratee in identifying the required training and/or professional development objective. Once identified, the training or developmental activities are recorded on the employee's Senior System Civilian Evaluation Report Support Form (DA Form 7222-1, May 93).

(5) When an employee has completed a required phase of training, it must be documented by a competent individual officially designated by the FCR. The completed training will be noted in the IDP and filed with the employee's official personnel folder. Employees who demonstrate the ability to effectively handle increasingly complex assignments become more competitive for developmental assignments and advancement.

(6) Self-Development. In addition to the mandated training outlined in the MTP for the IHT, employees at all levels are encouraged to undertake individual projects such as technical papers, presentations, and membership in professional organizations. These opportunities will increase their knowledge, improve competence in their area of interest, and offset any limitations identified in the career planning process. This is a voluntary effort initiated and conducted by the employee. Active interest in self-development generally indicates that an employee has a strong desire to achieve or exceed planned career goals. Information to help employees identify and plan relevant self-development activities can be found in the MTP. Employees will be encouraged to take advantage of (a) available Army and other professionally relevant correspondence courses, (b) opportunities for study at nearby colleges or universities, (c) planning, reading, and discussion of current developments in the various aspects of IH, and (d) seminars, workshops, and meetings sponsored by professional organizations.

b. Training Levels.

(1) Entry Level Training. At the GS-05/06 levels, this new employee generally requires OJT experience and technical training. Emphasis will be placed on training in: (a) IH fundamentals; (b) concepts of health hazard anticipation, recognition, evaluation, and control; (c) instrumentation application and techniques of inspection; and (d) sampling for a variety of contaminants. Typical assignments at the Entry Level include equipment maintenance; participating as a team member on surveys; assisting in routine inspections; and working on projects under the supervision of an IH. Participation in professional group activities is encouraged.

(2) Full Performance Level. At the GS-07/08 levels, the primary focus is to increase the technical knowledge and skill of the employee. Work assignments are selected to add to the depth and breadth of their technical competence. Assignments at this level include: (a) conducting

limited scope studies; (b) evaluating operations involving chemical and physical hazards; and (c) evaluating ventilation systems. Employees at this level are encouraged to take the certification examination from the American Board of Industrial Hygiene and Board of Certified Safety Professionals for the Occupational Health and Safety Technologist designation.

(3) Senior Technician Training. At the GS-09 level, the focus is placed on increasing the employee's competence in specialized areas related to IH. Participation in professional group activities will be encouraged.

(4) Team Leader Level Training. Team Leader Level IH Technicians, GS-10, are responsible for the oversight of Junior Level technicians, overall management of equipment calibration and maintenance, and making recommendations for the procurement of new equipment. Training will be on emerging technology in IH equipment and systems.

c. Application for Training. Application procedures for some civilian training courses are described in detail, for each available course, in the annual ASA(M&RA) Catalog of Civilian Training, Education and Professional Development Opportunities publication.

d. Affirmative Action/Equal Employment Opportunity. Training and development opportunities for participants covered by this plan will be provided without regard to race, color, sex, religion, national origin, non-disqualifying disabilities, or age.

APPENDIX A

KEY POSITIONS FOR INDUSTRIAL HYGIENISTS

TITLE	GRADE	LOCATION
<u>USACHPPM</u>		
DIR, OCC HLTH SCIENCES	GS-0690-15	USACHPPM, APG, MD
SCIENTIFIC ADVISOR DOHS	GS-0690-15	USACHPPM, APG, MD
PROGRAM MANAGER	GS-0690-14	USACHPPM, APG, MD
IH TECHNICAL EXPERT (2)	GS-0690-14	USACHPPM, APG, MD
CHIEF, IH DIVISION	GS-0690-14	USACHPPM-N, FORT MEADE, MD
INDUSTRIAL HYGIENIST	GS-0690-13	USACHPPM-N, FORT MEADE, MD
INDUSTRIAL HYGIENIST	GS-0690-13	USACHPPM-W, FAMC, AURORA, CO
INDUSTRIAL HYGIENIST	GS-0690-13	USACHPPM-PAC, SAGAMI, JAPAN
INDUSTRIAL HYGIENIST	GS-0690-13	USACHPPM-EUR, GERMANY
INDUSTRIAL HYGIENIST (8)	GS-0690-13	USACHPPM, APG, MD
<u>USACE</u>		
SUPERVISORY IH	GS-0690-14	HQ USACE, WASH, DC
INDUSTRIAL HYGIENIST	GS-0690-14	HQ USACE, WASH, DC
INDUSTRIAL HYGIENIST	GS-0690-14	HQ USACE, WASH, DC
SUPERVISORY IH	GS-0690-14	ENG DIST OMAHA, HTRW CX, OMAHA, NE
SUPERVISORY IH	GS-0690-13	ENG DIST OMAHA, OMAHA, NE
INDUSTRIAL HYGIENIST (3)	GS-0690-13	ENG DIST OMAHA, HTRW CX, OMAHA, NE
INDUSTRIAL HYGIENIST	GS-0690-13	ENG DIV NORTH ATLANTIC, NY, NY
INDUSTRIAL HYGIENIST	GS-0690-13	ENG DIV N ENGLAND, WALTHAM, MA
INDUSTRIAL HYGIENIST	GS-0690-13	ENG DIST SACRAMENTO, SACRAMENTO, CA
INDUSTRIAL HYGIENIST	GS-0690-13	ENG DIST BALTIMORE, BALTIMORE, MD
<u>INSTALLATION</u>		
SUPERVISORY IH	GS-0690-14	APG, MD
SUPERVISORY IH	GS-0690-14	WRAMC, WASH, DC
SUPERVISORY IH (2)	GS-0690-13	APG, MD
INDUSTRIAL HYGIENIST	GS-0690-13	APG, MD
SUPERVISORY IH	GS-0690-13	FT MEADE MEDDAC, FT MEADE, MD

INDUSTRIAL HYGIENIST (2) GS-0690-13 FT MEADE MEDDAC, FT MEADE,
MD

NGB

SUPERVISORY IH GS-0690-13 NGB, ARLINGTON, VA

AMC

INDUSTRIAL HYGIENIST GS-0690-14 HQ, AMC, ALEXANDRIA, VA

INDUSTRIAL HYGIENIST (2) GS-0690-13 HQ, COMM ELCT COM, FT
MONMOUTH, NJ

ERDEC

INDUSTRIAL HYGIENIST GS-0690-14 ERDEC, APG, MD

USAEC

INDUSTRIAL HYGIENIST GS-0690-13 USAEC, APG, MD

PMCD

INDUSTRIAL HYGIENIST GS-0690-13 PMCD, APG, MD

Number in parentheses indicates number of positions if more than one at that location.

APPENDIX B

COMPETENCIES FOR INDUSTRIAL HYGIENISTS AND INDUSTRIAL HYGIENE TECHNICIANS

1. Knowledge of occupational medicine principles, procedures, and program elements (i.e., vision, hearing, and medical surveillance) as outlined in DOD 6055.5M, 29 Code of Federal Regulations (CFR), and Army Regulation (AR) 40-5.
2. Knowledge of hearing conservation management, including hazard evaluation, worker protection, and record-keeping requirements.
3. Knowledge of hazardous toxic waste program as outlined in current public laws and ARs (i.e., 29 CFR, 40 CFR, AR 200-1, Superfund Amendment Reauthorization Act, and Resource Conservation and Recovery Act).
4. Knowledge of IH program management as outlined in current public laws or ARs, such as 29 CFR, AR 40-5, and Technical Bulletin Medical 503.
5. Skill in managing occupational health/IH personnel.
6. Skill in developing written criteria for and conducting evaluations of programs.
7. Ability to identify requirements for IH programs.
8. Ability to develop program documents (i.e., noise dosimetry, toxicological exposure, and evaluation and control) to specify goals, outline policies, establish priorities, and schedule for action.
9. Ability to determine and procure program resource needs (i.e., budget, personnel, equipment, and facilities).
10. Ability to determine and review employees' health-related requirements in all standing operating procedures (i.e., field training exercises and worksites).
11. Ability to plan and provide for emergency and prioritized routine services (i.e., worksite clearance, hazard toxic waste sites, or spill areas).
12. Ability to prepare and provide input into the occupational health budget.

13. Ability to coordinate with others to develop hazard toxic waste program policies and procedures to include superfund, installation restoration programs (i.e., defense environmental restoration program, former defense sites), and other related missions.
14. Ability to establish quality assurance indicators for program elements.
15. Ability to assist with methods and preparation of statistical analyses and reports of Office of Workers' Compensation Program accident/illness data and chargeback verification.
16. Ability to review new regulations, analyze impact, and provide comments to regulating agency.
17. Ability to provide technical advice and guidance to commanders, staff, and clients.
18. Ability to market services to installation and tenant commanders and develop plans for delivery and reimbursement of services.
19. Ability to actively participate in the MACOM, installation, community level Safety and Occupational Health Advisory Council, and other committees.
20. Knowledge of risk assessment policies, procedures, and techniques, including toxicology of environmental contaminants and physiological effects of workplace stressors.
21. Knowledge of laboratory operations, associated control procedures, and chemical hygiene management.
22. Knowledge of industrial operations (i.e., welding, spray painting, and vapor degreasing) including contaminants generated, hazards, and emergency procedures.
23. Knowledge of techniques and procedures for IH monitoring and sample analysis.
24. Knowledge of indoor air quality standards, practices, and criteria (i.e., American Society of Heating, Refrigeration, and Air Conditioning Engineers (ASHRAE), National Institute for Occupational Safety and Health (NIOSH), and Environmental Protection Agency (EPA) publications).
25. Knowledge of general occupational health standards, practices, and inspection procedures (i.e., Occupational Safety and Health Administration (OSHA) General Industry Standards, 29 CFR 1910, Federal Safety Standards, 29 CFR 1960, AR 40-5, and AR 385-10).
26. Knowledge of ergonomics and human factors design policies, practices, and guidelines.
27. Knowledge of medical treatment facility health criteria related to emergency medical services, medical and dental clinics, medical department activity (MEDDAC), dental activity, and hospital activities.
28. Skill in observing worksite procedures, physical layouts, and in interviewing employees to gather information on operations, material used, and equipment that may result in illness, impairment, injury, or impact on the health of workers and members of the community.
29. Skill in preparing methodology for sampling and evaluation of unique or emergency situations.
30. Skill in calibrating sampling/measuring instruments to National Institute for Standards Testing traceable standards and recording as required.

31. Skill in preparing written reports detailing findings, risk assessments, and recommended corrective actions, as well as in establishing appropriate priorities for action using the Risk Assessment Codes (RACs) and for documentation of the regulatory requirements.
32. Skill in presenting briefings on IH findings to management, unions, workers, and outside agencies.
33. Skill in coordinating with occupational medicine personnel regarding workers enrolled in the medical surveillance program.
34. Ability to determine actual or potential health hazards present in the workplace which require further evaluation using preliminary data.
35. Ability to research information sources (i.e., Material Safety Data Sheets, Health Hazard Information Module (HHIM), regulations, standards, other agencies, and experts) for health effects data applicable to work operations.
36. Ability to assist in preparing occupational health standards for unique or emergency situations.
37. Ability to measure airborne or surface concentrations of known or suspected chemical and/or biological contaminants in the workplace or surrounding area.
38. Ability to measure physical agents found in the workplace.
39. Ability to evaluate engineering controls found in the workplace to determine their effectiveness.
40. Ability to evaluate present controls (i.e., personal protective equipment (PPE), engineering controls, and work practices) and recommend improvements or new controls to eliminate or reduce hazards.
41. Ability to evaluate exposure data to determine the extent or presence of actual or potential health hazards by comparing with appropriate standards (i.e., risk assessments).
42. Ability to prepare a health hazard abatement plan for uncorrected hazards.

43. Ability to develop, review, and evaluate site-specific safety/health programs and plans for hazardous/toxic waste investigation, design, and construction activities.
44. Ability to follow up on hazard abatement strategies.
45. Ability to collect, review, and maintain data from surveillance and evaluation activities.
46. Knowledge of the material acquisition process including source selection, evaluation, test and evaluation procedures, and requirements documents.
47. Knowledge of resource management issues including staffing, EEO, position management, training, employee relations, manpower, budget, and professional development.
48. Knowledge of asbestos program management, use, operation procedures, mitigation, and medical effects, as outlined in 29 CFR, 40 CFR, AR 200-1, etc.
49. Knowledge of statistical analysis techniques (descriptive and inferential) for trend identification.
50. Knowledge of office automation applications (i.e., spreadsheets, graphics, database management, communication practices, the Occupational Health Management Information System (OHMIS), and the Hazardous Material Information System).
51. Knowledge of the procurement process to incorporate health requirements into contract documents, evaluate the health portions of contractor proposals, and monitor contracts.
52. Knowledge of regulations, standards, and practices concerning evaluation and selection of clothing and PPE (i.e., respirators, and eye and hearing protection).
53. Skill in purchasing or approving the purchase of nonstock protective clothing and equipment.
54. Skill in coordinating and conducting staff assistance visits and audits to assess and analyze programs or specific problems.
55. Ability to administer resources (i.e., budget, personnel, equipment, and facilities).
56. Ability to coordinate and maintain liaison with agencies and other related services including local, state, and federal levels.
57. Ability to implement IH program elements (i.e., respiratory protection, hazardous waste, etc.).
58. Ability to develop and review risk assessments, to include health hazards assessments, for all types of systems and operations.
59. Ability to represent the Army on various boards and committees.

60. Ability to evaluate the organization/installation level of readiness to handle mobilization and emergencies.
61. Ability to implement and administer the IH aspects of hazardous waste program policies and procedures to include superfund, installation restoration programs (i.e., defense environmental restoration program, formerly used defense sites), and other related missions.
62. Ability to administer contracts and to develop and review a statement of work (SOW).
63. Ability to provide workplace health hazard evaluations relevant to environmental differential pay determinations.
64. Ability to provide health protection requirements to supervisors and personnel officers for performance standards and job descriptions.
65. Ability to establish and maintain the HHIM of the OHMIS or other appropriate database.
66. Ability to develop technical documents for use in worksite evaluations or program implementations.
67. Ability to write job descriptions, performance appraisals, and Individual Development Plans (IDPs) for personnel supervised.
68. Ability to manage personnel administration.
69. Ability to draft hiring actions for vacant positions.
70. Knowledge of industrial ventilation design, evaluation standards, and guidance as provided by the ASHRAE, Industrial Ventilation Manual, and related publications.
71. Knowledge of mitigation and abatement procedures such as how to gather and analyze information in order to recommend corrective action by using engineering controls, work practices, and PPE.
72. Skill in developing and reviewing IH related portions of contractual documents (i.e., SOW, contractor proposal, and procurement specifications).
73. Ability to conduct, review, evaluate, and investigate design, and to construct plans (i.e., health hazard assessment, Site Safety and Health Plan) for hazardous toxic waste execution.
74. Ability to conduct, review, and evaluate health hazard assessments associated with the design of new and modified systems in the material acquisition cycle.

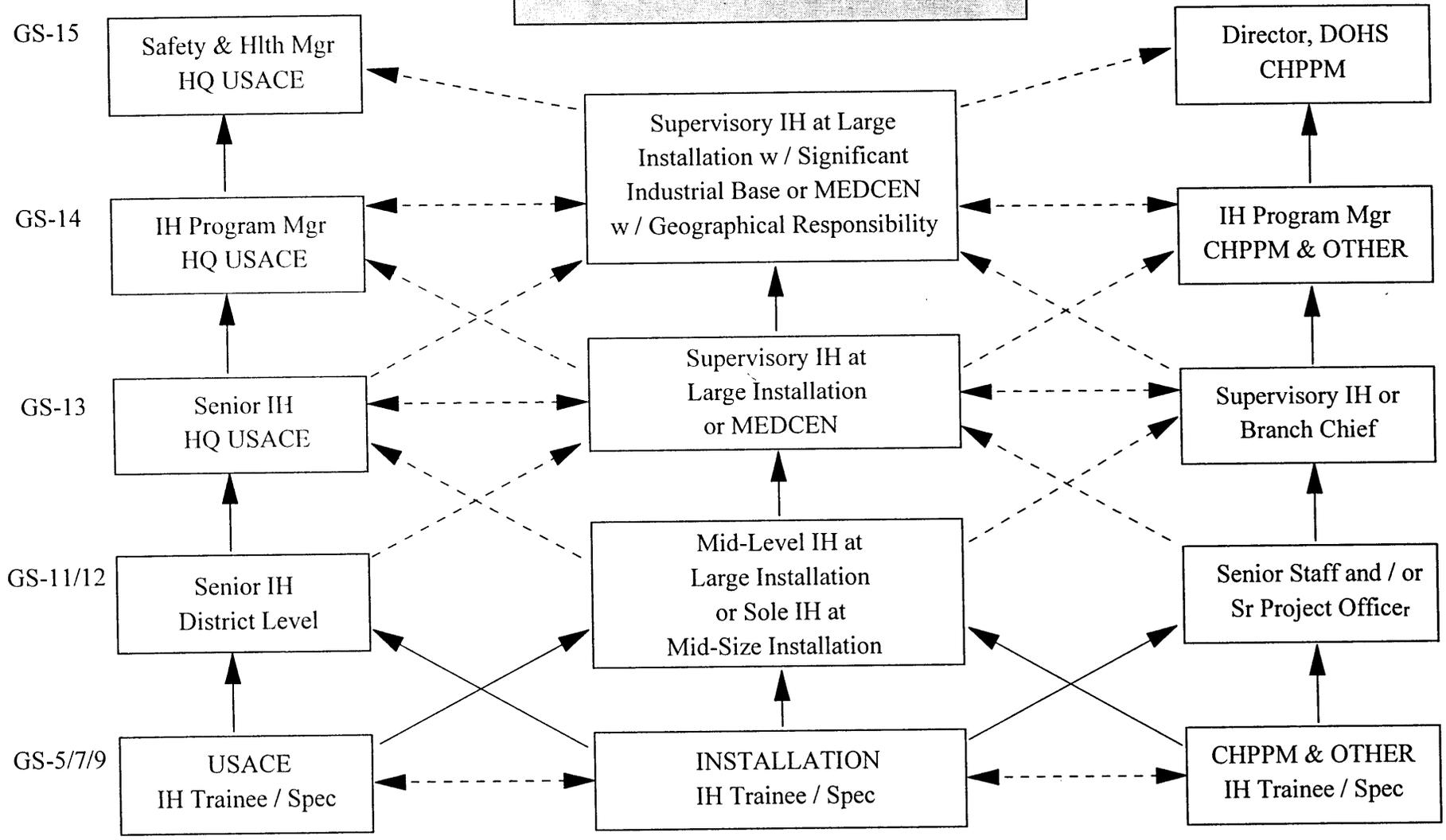
75. Ability to coordinate with developers and engineering personnel (to include contractors) to ensure timely access to documents for health hazards review of systems and facilities.
76. Ability to review work plans, blueprints, specifications, and other documents to ensure the application of health standards for illness and injury prevention in the construction and modification of facilities.
77. Knowledge of public health issues related to integration of IH into preventive medicine programs (i.e., nonoccupational exposures, recreation, and housing concerns).
78. Skill in investigating accidents/incidents involving injury, illness, property damage, or mission degradation.
79. Skill in providing input to accident/incident reporting and analysis systems.
80. Skill in serving as a board member or a technical advisor on investigation teams.
81. Ability to assist in conducting epidemiological investigations.
82. Ability to assist in conducting research in the application of health standards for identified or potential health problems.
83. Ability to analyze health-related accident/incident experience and recommend abatement measures.
84. Ability to complete and review health-related accident/incident reports (i.e., check for accuracy, completeness, and clarity).
85. Ability to perform accident/incident analyses by compiling statistical data on factors such as causes of illnesses and injuries.
86. Ability to review and evaluate accidents/incidents to identify failures resulting from deficiencies in materials or design, preexisting safety and health hazards, and appropriate abatement measures.
87. Ability to ensure appropriate control methods are implemented (i.e., training, engineering, and procedural modification).
88. Ability to prepare or review requests for waivers or exemptions as necessary.
89. Knowledge of training sufficient to determine training needs, define objectives, select media, and propose methods of presenting and evaluating training.

90. Skill in developing educational material and training techniques to promote awareness of health hazards and corresponding preventive procedures (i.e., hazard communications and hazardous toxic waste).
91. Skill in providing related educational material for training and in conducting training via different media (i.e., oral presentations and posters).
92. Skill in planning and implementing programs designed to promote on- and off-duty health hazard awareness (i.e., noise, asbestos, radon, and lead).
93. Ability to determine training requirements.
94. Ability to monitor certification or regulatory qualifications to ensure provision of special training for personnel (i.e., recertification training).
95. Ability to evaluate and revise training programs.
96. Ability to incorporate IH related information, practices, and standards in training literature.
97. Ability to provide Hazard Communications orientation for new employees and new supervisors (civilian and military).
98. Ability to plan, conduct, or monitor safety/health meetings.
99. Ability to promote professional relationships between and among other disciplines (i.e., procurement, finance, engineering, construction, personnel, safety, medical, etc.).
100. Ability to publicize and promote enforcement of occupational health policies and regulations (i.e., PPE and work practices).

APPENDIX C

INDUSTRIAL HYGIENIST CAREER PATHS

LEADER TRACK



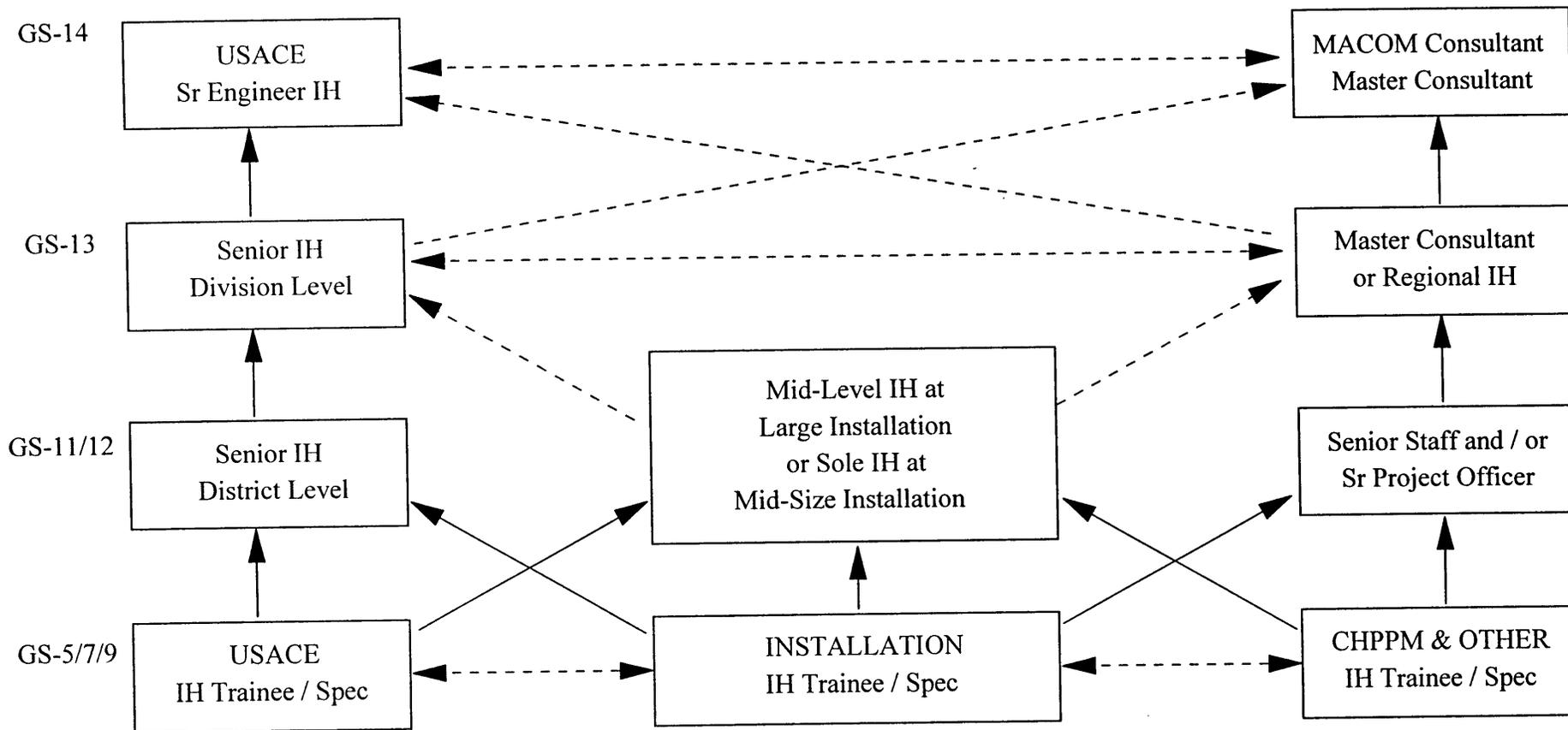
25

The solid lines show the most likely routes of ascension to the higher grades. The dotted lines show crossover to the other routes. Crossover is encouraged at the lower levels.

APPENDIX C

INDUSTRIAL HYGIENIST CAREER PATHS

SPECIALIST TRACK



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The solid lines show the most likely routes of ascension to the higher grades. The dotted lines show crossover to the other routes. Crossover is encouraged at the lower levels.

APPENDIX D
MASTER TRAINING PLAN (MTP) MATRIX FOR THE INDUSTRIAL HYGIENISTS

COURSE / SEMINAR / OJT	TYPE OF TRAINING	LENGTH HOURS	ENTRY / TRAINEE		SPECIALIST		SR SPEC / SUPV		MASTER / MANAGER		SOURCE (APP F)	CORE COMPETENCIES (APP B)	TRAINING DESCRIPTION (APP E)
			GS-05	GS-07	GS-09	GS-11	GS-12	GS-13	GS-14	GS-15			
ORIENTATION FOR INDUSTRIAL HYGIENISTS	FC	40	U1	U1							STA/TDY	6,7,10,15,16,28,30,31,34,35,41,45	19
BASIC INDUSTRIAL HYGIENE TECHNIQUES	FC	80	U1	U1							AMEDDC&S	21,22,23,25,27,30,34,35,37,38,39,40,41,45,52	1
COMPUTER LITERACY FOR INDUSTRIAL HYGIENE TRAINEES	FC	40	U1	U1							USACHPPM	31,45,50,65,90,94,96	32
EFFECTIVE BRIEFINGS AND PRESENTATIONS	FC	40	U1	U1							USACHPPM	32,59,89,90,91,97,98,100	27
HEALTH HAZARD INFORMATION MODULE USER TRAINING	FC	40	U1	U1							USACHPPM	32,39,45,50,65	13
INTERN LEADERSHIP DEVELOPMENT COURSE	FC	40	U1	U1							CAL	13,56,59,75,80,88,98,99	21
SPRAY FINISHING OPERATIONS	OJT	40	U1	U1							STA/TDY	22,23,25,28,30,34,35,37,38,39,41,44,45,52,70	22
CARPENTRY/WOODWORKING OPERATIONS	OJT	40	U1	U1							STA/TDY	22,23,25,28,30,34,35,37,38,39,41,44,45,52,70	22
VEHICLE MAINTENANCE FACILITIES	OJT	40	U1	U1							STA/TDY	22,23,25,28,30,34,35,37,38,39,41,44,45,52,70	22
VENTILATION EVALUATION	OJT	40	U1	U1							STA/TDY	22,25,28,30,35,39,44,45	22
INDUSTRIAL NOISE EVALUATIONS	OJT	40	U1	U1							STA/TDY	22,25,30,34,35,38,41,44,45,52	22
INDOOR FIRING RANGE	OJT	40	U2	U2							STA/TDY	25,28,30,38,39,41,44,45,52	22
CHEMICAL DEMILLING/SURETY OPERATIONS	OJT	40	U2	U2							STA/TDY	22,23,25,28,30,34,35,37,38,39,41,44,45,52,70	22
HOSPITAL/DENTAL FACILITY	OJT	40	U2	U2							STA/TDY	21,23,24,25,28,30,34,35,37,38,39,41,44,45,52,70	22
AMMUNITION PLANT INDUSTRIAL HYGIENE EVALUATION	OJT	40	U2	U2							STA/TDY	22,23,25,28,30,34,35,37,38,39,41,44,45,52,70	22
INTERMEDIATE INDUSTRIAL HYGIENE TOPICS COURSE	FC	80		U1	U1	U1					STA/TDY	21,22,23,24,25,26,27,34,35,37,38,39,40,41,45,48,52,70	2
PRINCIPLES OF ERGONOMICS	FC	20		U1	U1	U1					USACHPPM	26,28,34,35,38,39,41,44,45	10
OCCUPATIONAL NOISE	FC	16		U2	U2	U2					USACHPPM	23,25,28,30,34,35,38,39,44,45,52	14
OCCUPATIONAL RESPIRATORY PROTECTION	FC	40		U2	U2	U2					USACHPPM	23,25,28,34,35,38,39,44,45,52	3
CHEMICAL PROTECTIVE CLOTHING	FC	24		U2	U2	U2					USACHPPM	22,25,26,28,38,44,45,52	28
INDUSTRIAL VENTILATION	FC	40			U1*/U2	U1*/U2	U1*/U2				USACHPPM	22,25,28,30,35,39,44,45,70	12
VIBRATION/ERGONOMIC STUDY	OJT	40			U1*/U2	U1*/U2	U1*/U2				STA/TDY	26,28,34,35,38,39,41,44,45	22
INDOOR AIR QUALITY	FC	24			U1*/U2	U1*/U2	U1*/U2				USACHPPM	21,22,23,24,25,27,28,30,34,35,37,38,39,44,45,70	33
BLUEPRINT READING & INDUSTRIAL HYGIENE DESIGN REVIEW	FC	40			U1*/U2	U1*/U2	U1*/U2				USACHPPM	22,25,28,30,35,39,44,45,70	9

LEGEND: SHADED COURSES ARE PART OF A COMPREHENSIVE CENTRALLY FUNDED TRAINEE PLAN

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APPENDIX D
MASTER TRAINING PLAN (MTP) MATRIX FOR THE INDUSTRIAL HYGIENISTS

COURSE / SEMINAR / OJT	TYPE OF TRAINING	LENGTH HOURS	ENTRY / TRAINEE		SPECIALIST		SR SPEC / SUPV		MASTER / MANAGER		SOURCE (APP F)	CORE COMPETENCIES (APP B)	TRAINING DESCRIPTION (APP E)
			GS-05	GS-07	GS-09	GS-11	GS-12	GS-13	GS-14	GS-15			
CONSTRUCTION / RENOVATION DESIGN REVIEWS	OJT	40			U1*/U2	U1*/U2	U1*/U2				STA/TDY	7,8,9,10,11,70	22
ASBESTOS BUILDING INSPECTOR COURSE	FC	24			U1*/U2	U1*/U2	U1*/U2				USACHPPM	22,23,25,28,30,34,35,37,38,39,41,44,45,48,52,70	6
ASBESTOS MANAGEMENT PLANNER COURSE	FC	16			U1*/U2	U1*/U2	U1*/U2				USACHPPM	22,23,25,28,30,34,35,37,38,39,41,44,45,48,52,70	7
ASBESTOS PROJECT DESIGNER COURSE	FC	16			U1*/U2	U1*/U2	U1*/U2				USACHPPM	28,31,32,34,35,37,39,41,44,45,48,71	8
LEAD-BASED PAINT ABATEMENT INSPECTOR	FC	40			U1*/U2	U1*/U2	U1*/U2				USACHPPM	22,23,25,28,30,34,35,37,38,39,41,44,45,52,70	45/46
LEAD-BASED PAINT ABATEMENT CONTRACTOR/SUPERVISOR	FC	40			U1*/U2	U1*/U2	U1*/U2				USACHPPM	22,23,25,28,30,34,35,37,38,39,41,44,45,52,70	47
LEAD-BASED PAINT ABATEMENT WORKER	FC	40			U2	U2	U2				USACHPPM	22,23,25,28,30,34,35,37,38,39,41,44,45,52,70	48
LEAD ABATEMENT STUDY	OJT	40			U2	U2	U2				STA/TDY	22,23,25,28,30,34,35,37,38,39,41,44,45,52	22
INDOOR AIR QUALITY SURVEYS	OJT	40			U2	U2	U2				STA/TDY	21,22,23,24,25,27,28,30,34,35,37,38,39,44,45,70	22
TOXICOLOGY	FC	24			U2	U2	U2				USACHPPM	20,29,34,35,36,41,81,82,83	34
CONTRACTING OFFICER REPRESENTATIVE COURSE	CC	40			U2	U2	U2				ALMC	6,17,18,19,44,51,53,56,59,62,75,76	35
ASBESTOS ABATEMENT CONTRACTOR/SUPERVISOR COURSE	FC	40			U2	U2	U2				USACHPPM	22,23,25,28,30,34,35,37,38,39,41,44,45,48,52,70	5
ASBESTOS ABATEMENT PROJECT	OJT	40			U2	U2	U2				STA/TDY	22,23,25,28,30,34,35,37,38,39,41,44,45,48,52,70	22
INDUSTRIAL HYGIENE CONTRACT REVIEW	OJT	40			UR	UR	UR				STA/TDY	6,14,17,43,44,45,66,72,75	22
HAZARDOUS WASTE OPERATIONS	FC	40			UR	UR	UR				USACHPPM	22,23,25,28,30,34,35,37,38,41,44,45,52	17
HAZARDOUS WASTE REMEDIATION	OJT	40			UR	UR	UR				STA/TDY	22,23,25,28,30,34,35,37,38,41,44,45,52	22
SAFETY HAZARD RECOGNITION FOR INDUSTRIAL HYGIENISTS	FC	40			UR	UR	UR				OSHA	13,15,16,19,53,59,60,63,64,73,76,78,79,83,84,,85,86	29
ANNUAL INDUSTRIAL HYGIENE SYMPOSIUM	FC	40			UR	UR	UR	UR	UR	UR	USACHPPM	4,7,9,16,18,19,32,54,56,58,59,71,80,888,898,99	4
SUPERVISOR DEVELOPMENT COURSE	CC	40					SUP-U1 U2	SUP-U1 U2	SUP-U1 U2	SUP-U1 U2	AIPD	6,8,9,14,15,18,47,55,67,68,69,99	20
LEADERSHIP EDUCATION AND DEVELOPMENT	FC	40					SUP-U1 U2	SUP-U1 U2	SUP-U1 U2	SUP-U1 U2	CAL	17,18,19,31,32,33,57,58,67,68,69,98,99	25
INDUSTRIAL HYGIENE DOCUMENT DEVELOPMENT	OJT	40					U2	U2	U2		STA/TDY	1,4,6,7,8,14,16,31,66,72,90	22
INSTALLATION PROGRAM EVALUATION	OJT	40					U2	U2	U2		STA/TDY	1,4,6,7,8,9,13,16,17,18,54	22

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APPENDIX D
MASTER TRAINING PLAN (MTP) MATRIX FOR THE INDUSTRIAL HYGIENISTS

COURSE / SEMINAR / OJT	TYPE OF TRAINING	LENGTH HOURS	ENTRY / TRAINEE		SPECIALIST		SR SPEC / SUPV		MASTER / MANAGER		SOURCE (APP F)	CORE COMPETENCIES (APP B)	TRAINING DESCRIPTION (APP E)
			GS-05	GS-07	GS-09	GS-11	GS-12	GS-13	GS-14	GS-15			
VENTILATION SYSTEM TROUBLESHOOTING	FC	40					U1*/U2	U1*/U2	U1*/U2		USACHPPM	28,31,32,33,35,37,38,39,41,44,45,72,73,74,75,76	18
ERGONOMICS II/ MANAGEMENT	FC	20					U1*/U2	U1*/U2	U1*/U2		USACHPPM	6,15,16,17,18,19,26,28,29,31,32,33,34,35,36,40,41,42	11
PRESENT INDUSTRIAL HYGIENE TOPICS	OJT	40					U2	U2	U2		STA/TDY	17,18,19,32,59,80,91,100	22
RISK COMMUNICATION AND PUBLIC DIALOGUE WORKSHOP	FC	24					U2	U2	U2		USACHPPM	17,18,19,20,31,32,43,56,58,59,80	49
HEALTH HAZARD ASSESSMENTS	OJT	40					U2	U2	U2		USACHPPM	7,8,10,11,28,31,32,34,40,41,42,44,45,72,73,74,75,76,86	22
INDUSTRIAL HYGIENE CASE STUDIES COURSE	FC	40					U2	U2	U2		USACHPPM	5,7,8,9,10,11,12,13,16,17,29,32,36,41	16
MANAGEMENT CONCEPTS WORKSHOP	FC	40					U2	U2	U2		USACHPPM	5,6,7,8,9,12,14,15,17,18,19,31,32,33,55,57,58,98,99,100	15
DEVELOPING LISTENING AND MEMORY SKILLS	FC	16					UR	UR	UR		OPM	5,13,15,19,28,32,33,54,55,56,59	30
RESEARCH AND DEVELOPMENT LABORATORIES	OJT	40					UR	UR	UR		STA/TDY	6,14,16,17,28,31,34,35,37,38,39,40,41	22
SOURCE SELECTION EVALUATION BOARD	OJT	40					UR	UR	UR		USACHPPM	6,14,16,17,28,31,34,35,37,38,39,40,41	22
TECHNICAL PRESENTATION/PAPER	OJT	960					UR	UR	UR		STA/TDY	6,14,16,17,28,31,34,35,37,38,39,40,41	37
SPECIAL STUDIES	OJT	40					UR	UR	UR	UR	STA/TDY	6,14,16,17,28,31,34,35,37,38,39,40,41	22
ARMY MANAGEMENT STAFF COLLEGE (AMSC)	FC	560					C	C	C	C	AMSC (Belvoir)	14,16,17,47,49,51,55,59,60,68,69,88	36
EPA / OSHA / OTSG ROTATIONS	DVP	480					C	C	C	C	STA/TDY	6,14,16,17,28,31,34,35,37,38,39,40,41	22
LEGAL ASPECTS OF OCCUPATIONAL SAFETY AND HEALTH	FC	24						U1	U1	U1	NIOSH	7,10,14,15,16,17,18,19,31,42,44,54,56,58,64,66,76,80,88	31
MANAGER DEVELOPMENT COURSE	CC	20						L - U1	L - U1	L - U1	AIPD	17,18,19,31,32,33,57,58,67,68,69,95,99	39
ORGANIZATIONAL LEADERSHIP FOR EXECUTIVES	FC	80						L - U2 S-UR	L - U2 S-UR	L - U2 S-UR	CAL	17,18,19,31,32,33,57,58,67,68,69,98,99	26
PERSONNEL MANAGEMENT FOR EXECUTIVES (PME)	FC	64						L - U2 S-UR	L - U2 S-UR	L - U2 S-UR	ACCHRM	5,9,12,55,67,68,69,99	23
PERSONNEL MANAGEMENT FOR EXECUTIVES II (PME II)	FC	40						UR	UR	UR	ACCHRM	5,9,12,55,67,68,69,99	24
PUBLISHABLE RESEARCH PROJECT	OJT	960						UR	UR	UR	STA/TDY	16,17,18,31,32,42,65,81,82,96,99,100	38
THE LEGIS FELLOWSHIP FOR EXECUTIVE DEVELOPMENT	FC	2080							C	C	WASH DC (CAPITOL)	16,17,18,19,54,56,59,66,78,79,82,83,84,85,86,88	43
THE INDUSTRIAL COLLEGE OF	FC	1600							C	C	ICAF	27,47,48,51,52,53,55,56,	41

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APPENDIX D
MASTER TRAINING PLAN (MTP) MATRIX FOR THE INDUSTRIAL HYGIENISTS

COURSE / SEMINAR / OJT	TYPE OF TRAINING	LENGTH HOURS	ENTRY / TRAINEE		SPECIALIST		SR SPEC / SUPV		MASTER / MANAGER		SOURCE (APP F)	CORE COMPETENCIES (APP B)	TRAINING DESCRIPTION (APP E)	
			GS-05	GS-07	GS-09	GS-11	GS-12	GS-13	GS-14	GS-15				
THE ARMED FORCES (ICAF)												59,72,74,75,94,99		
THE ARMY WAR COLLEGE (AWC)	FC	1600								C	C	AWC	17,18,29,60	40
THE NATIONAL WAR COLLEGE (NWC)	FC	1600								C	C	NWC	59,60	42
SECRETARY OF THE ARMY RESEARCH AND STUDY FELLOWSHIPS	FC	1040								C	C	SARSF (TBD)	59,60,77,80,82,86,94,95	44
ACTION OFFICER DEVELOPMENT COURSE (AODC)	CC	6 months	U1	U1	U1	U1	U1	U1	U1	U1	U1	AIPD	7,8,10,15,17,28,33,34,35, 40,41,43,44,45,46,47,48, 49,54,55,58,65,66,68,70, 71,80,92,95,96,97,99,100, 105,107,110,111	50
DOD EXECUTIVE LEADERSHIP COURSE	1 year	1 year						C	C	C	C	DOD	15,17,28,32,33,34,40,41, 42,43,44,46,47,48,54,56, 59,60,71,86,88,95,101,105, 111	51
DOD SENIOR EXECUTIVE LEADERSHIP COURSE	1 year	1 year								C	C	DOD	15,17,28,32,33,34,40,41, 42,43,44,46,47,48,54,56, 59,60,71,86,88,95,101,105, 111	52
WOMENS EXECUTIVE LEADERSHIP	FC	13 months				C	C					OPM	28,32,33,34,38,40,41,42, 43,46,47,48,54,55,58,64, 65,71,72,76,92,95,101,105, 108	53

LEGEND: SHADED COURSES ARE PART OF A COMPREHENSIVE CENTRALLY FUNDED TRAINEE PLAN
FC = FORMAL COURSE
OJT = ON-THE-JOB TRAINING
CC = CORRESPONDENCE COURSE
DVP = DEVELOPMENTAL ASSIGNMENT
U1 = UNIVERSAL PRIORITY I
U2 = UNIVERSAL PRIORITY II

SUP = SUPERVISOR ONLY
UR = UNIVERSAL PRIORITY III
C = COMPETITIVE
L = LEADER TRACK

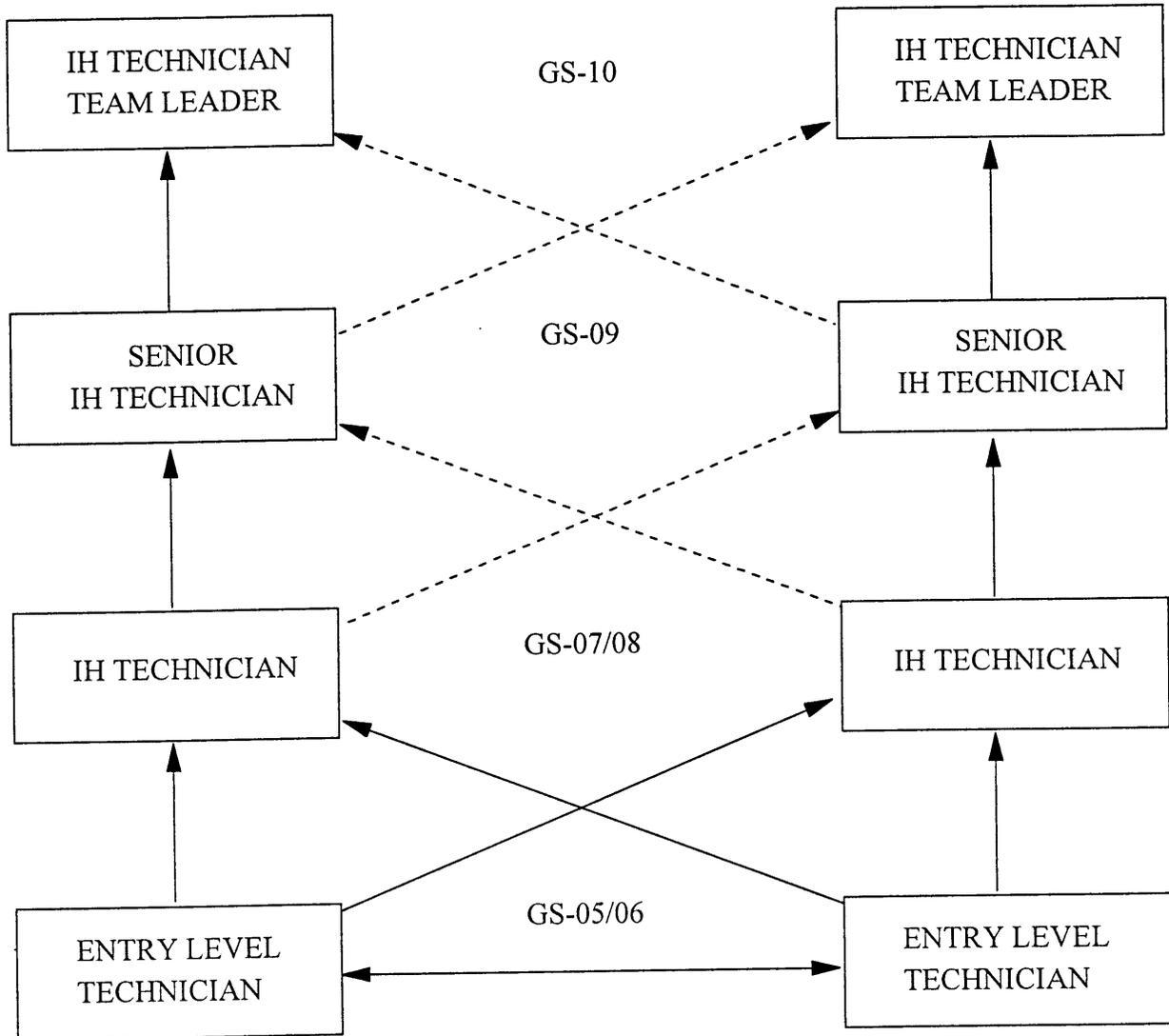
S = SPECIALIST TRACK
* = ACCORDING TO INDIVIDUAL
JOB REQUIREMENTS

APPENDIX E

INDUSTRIAL HYGIENE TECHNICIAN CAREER PATHS

USACHPPM / NGB

INSTALLATION



The solid lines show the most likely routes of ascension to the higher grades. Crossover between the pathways is encouraged at the lower levels. Due to special mission requirements, the grade levels of some positions may exceed those indicated above.

APPENDIX F
MASTER TRAINING PLAN (MTP) MATRIX FOR INDUSTRIAL HYGIENE TECHNICIANS

COURSE / SEMINAR / OJT'	TYPE OF TRAINING	LENGTH HOURS	GS-05	GS-06	GS-07	GS-08	GS-09	GS-10	SOURCE (APP F)	CORE COMPETENCIES (APP B)	TRAINING DESCRIPTION (APP E)	
ORIENTATION FOR INDUSTRIAL HYGIENE TECHNICIANS	OJT	40	U2	U2					STA/TDY	21,23,30,35,37,38,45,53,65	22	
BASIC INDUSTRIAL HYGIENE TECHNIQUES	FC	80	U2	U2					AMEDDC&S	21,22,23,25,27,30,34,35,37,38,39,40,41,45,52	1	
COMPUTER LITERACY FOR INDUSTRIAL HYGIENE TRAINEES	FC	40	U2	U2					USACHPPM	45,50,65,90	32	
HEALTH HAZARD INFORMATION MODULE USER TRAINING	FC	40	U2	U2					USACHPPM	45,50,65	13	
SPRAY FINISHING OPERATIONS	OJT	40	U2	U2					STA/TDY	22,23,25,28,30,34,35,37,38,39,41,44,45,52,70	22	
CARPENTRY/WOODWORKING OPERATIONS	OJT	40	U2	U2					STA/TDY	22,23,25,28,30,34,35,37,38,39,41,44,45,52,70	22	
VEHICLE MAINTENANCE FACILITIES	OJT	40	U2	U2					STA/TDY	22,23,25,28,30,34,35,37,38,39,41,44,45,52,70	22	
VENTILATION EVALUATION	OJT	40	U2	U2					STA/TDY	22,25,28,30,35,39,44,45	22	
INDUSTRIAL NOISE EVALUATIONS OJT		40	U2	U2					STA/TDY	22,25,30,34,35,38,41,44,45,52	22	
INDOOR FIRING RANGE	OJT	40	U2	U2					STA/TDY	25,28,30,38,39,41,44,45,52	22	
CHEMICAL DEMILLING/SURETY OPERATIONS	OJT	40	U2	U2					STA/TDY	22,23,25,28,30,34,35,37,38,39,41,44,45,52,70	22	
HOSPITAL/DENTAL FACILITY	OJT	40	U2	U2					STA/TDY	21,23,24,25,28,30,34,35,37,38,39,41,44,45,52,70	22	
AMMUNITION PLANT INDUSTRIAL HYGIENE EVALUATION	OJT	40	U2	U2					STA/TDY	22,23,25,28,30,34,35,37,38,39,41,44,45,52,70	22	
INTERMEDIATE INDUSTRIAL HYGIENE TOPICS COURSE	FC	80			U2	U2			STA/TDY	21,22,23,24,25,26,27,34,35,37,38,39,40,41,45,48,52,70	2	
PRINCIPLES OF ERGONOMICS	FC	20			U2	U2			USACHPPM	26,28,34,35,38,39,41,44,45	10	
OCCUPATIONAL NOISE	FC	16			U2	U2			USACHPPM	23,25,28,30,34,35,38,39,44,45,52	14	
OCCUPATIONAL RESPIRATORY PROTECTION	FC	40			U2	U2			USACHPPM	23,25,28,34,35,38,39,44,45,52	3	
APPENDIX F MASTER TRAINING PLAN (MTP) MATRIX FOR INDUSTRIAL HYGIENE TECHNICIANS	COURSE / SEMINAR / OJT'	TYPE OF TRAINING	LENGTH HOURS	GS-05	GS-06	GS-07	GS-08	GS-09	GS-10	SOURCE (APP F)	CORE COMPETENCIES (APP B)	TRAINING DESCRIPTION (APP E)
CHEMICAL PROTECTIVE CLOTHING	FC	24			U2	U2				USACHPPM	22,25,26,28,38,44,45,52	28
INDUSTRIAL VENTILATION	FC	40			U1*/U2	U1*/U2				USACHPPM	22,25,28,30,35,39,44,45,70	12
VIBRATION/ERGONOMIC STUDY	OJT	40						U1*/U2	U1*	STA/TDY	26,28,34,35,38,39,41,44,45	22
INDOOR AIR QUALITY	FC	24						U1*/U2	U1*	USACHPPM	21,22,23,24,25,27,28,30,34,35,37,38,39,44,45,70	33
BLUEPRINT READING AND IH DESIGN REVIEW	FC	40						U1*/U2	U1*	USACHPPM	22,25,28,30,35,39,44,45,70	9

ASBESTOS BUILDING INSPECTOR COURSE	FC	24					U1*/U2	U1*	USACHPPM	22,23,25,28,30,34,35,37,38,39,41,44,45,48,52,70	6
ASBESTOS MANAGEMENT PLANNER COURSE	FC	16					U1*/U2	U1*	USACHPPM	22,23,25,28,30,34,35,37,38,39,41,44,45,48,52,70	7
LEAD BASED PAINT ABATEMENT INSPECTOR	FC	40					U1*/U2	U1*	USACHPPM	22,23,25,28,30,34,35,37,38,39,41,44,45,52,70	45
LEAD BASED PAINT ABATEMENT CONTRACTOR/SUPERVISOR	FC	40					U1*/U2	U1*	USACHPPM	22,23,25,28,30,34,35,37,38,39,41,44,45,52,70	47
LEAD BASED PAINT ABATEMENT WORKER	FC	40					U2	U2	USACHPPM	22,23,25,28,30,34,35,37,38,39,41,44,45,52,70	48
LEAD ABATEMENT STUDY	OJT	40					U2	U2	STA/TDY	22,23,25,28,30,34,35,37,38,39,41,44,45,52	22
INDOOR AIR QUALITY SURVEYS	OJT	40					U2	U2	STA/TDY	21,22,23,24,25,27,28,30,34,35,37,38,39,44,45,70	22
ASBESTOS ABATEMENT CONTRACTOR/SUPERVISOR COURSE	FC	40					U1*/U2	U1*	USACHPPM	22,23,25,28,30,34,35,37,38,39,41,44,45,48,52,70	5
ASBESTOS ABATEMENT PROJECT	OJT	40					U2	U2	STA/TDY	22,23,25,28,30,34,35,37,38,39,41,44,45,48,52,70	22
HAZARDOUS WASTE OPERATIONS	FC	40					U1*/U2	U1*	USACHPPM	22,23,25,28,30,34,35,37,38,41,44,45,52	17
HAZARDOUS WASTE REMEDIATION	OJT	40					U2	U2	STA/TDY	22,23,25,28,30,34,35,37,38,41,44,45,52	22

LEGEND: FC = FORMAL COURSE
OJT = ON-THE-JOB TRAINING

U1 = UNIVERSAL PRIORITY I
U2 = UNIVERSAL PRIORITY II

* = ACCORDING TO INDIVIDUAL JOB REQUIREMENTS

APPENDIX G

COURSE DESCRIPTIONS FOR THE INDUSTRIAL HYGIENIST AND THE INDUSTRIAL HYGIENE TECHNICIAN

- 1. BASIC IH TECHNIQUES.** Presents AMEDD personnel a basic knowledge of techniques used in the recognition, evaluation, and control of occupational health hazards. Instruction is presented through conferences, practical exercises, and examinations.
- 2. INTERMEDIATE IH TOPICS COURSE.** Presents AMEDD personnel advanced training and continuing education in the technical aspects of IH topics. Specific content varies from year to year depending upon current issues; however, the course addresses the principal topics of Respiratory Protection and Industrial Ventilation.
- 3. OCCUPATIONAL RESPIRATORY PROTECTION COURSE.** Presents advanced topics and problems of respirator usage. Includes an update on current standards, legal decisions, and research results; a self-contained breathing apparatus workshop with field exercise; qualitative and quantitative fit test workshops; and cleaning and maintenance workshop. This course is open primarily to the IHs.
- 4. ANNUAL IH SYMPOSIUM.** A series of meetings and presentations which collectively enable all personnel supporting the IH mission at DA facilities to exchange ideas, insights, and information. Designed to give specialists a chance to deliver short presentations on various aspects of IH as well as allow for free exchange of opinions by attendees. After attending the symposium, DA support personnel will have received up-to-date information on trends in policy, changes in equipment, and plans for dealing with current issues. The symposium is focused on helping attendees to better meet their mission goal of protecting the health of DA military and civilian employees.
- 5. ASBESTOS ABATEMENT CONTRACTORS AND SUPERVISORS COURSE.** An EPA accredited course designed to teach the proper techniques for designing and operating an Asbestos Abatement Project. Includes how to prepare the site for the abatement, how to properly contain the asbestos building materials, instituting state-of-the-art work practices, PPE requirements, and current EPA and OSHA regulatory requirements. Includes techniques for cleaning the project area and performing the final cleanup air monitoring.
- 6. ASBESTOS BUILDING INSPECTOR COURSE.** An EPA-accredited course designed to teach proper techniques of performing an inspection of buildings to determine where potential asbestos building materials are located and assess its physical condition. Teaches the proper methods for sampling building material to determine if it contains asbestos.
- 7. ASBESTOS MANAGEMENT PLANNER COURSE.** An EPA-accredited course required for persons who prepare asbestos management plans for schools. This course covers procedures for developing an asbestos management plan.

8. ASBESTOS PROJECT DESIGNER COURSE. An EPA-accredited course required for persons who must design projects for roofs, abate asbestos in roofs, and inspect roofs. Topics include health effects, safety system design specifications, PPE, fiber aerodynamics and control, design of abatement solutions, preparation of drawings, and regulatory, liability, and economic issues.

9. BLUEPRINT READING AND IH REVIEW CLASS. Focuses on the design review process. Includes a review of key regulatory criteria for Army construction projects including special sessions on indoor firing ranges and child day-care facilities. Attendees will gain an understanding about blueprint formats and drawings through several hours of hands-on workshops. This course is open to IHs and technicians.

10. PRINCIPLES OF ERGONOMICS. Introduces the application of ergonomic principles in an effort to reduce stresses and strains on the employee's body. Topics include work physiology, biomechanics, anthropometry, repetitive motion disorders, videodisplay terminals, manual lifting, back injury problems, design of workstations and equipment, and demonstrations of instrumentation and equipment used in the field of ergonomics.

11. ERGONOMICS II / MANAGEMENT. Presents training necessary to identify and correct work habits and/or worksite conditions that contribute to cumulative trauma injuries. Included in this 3-day course will be on-site evaluations of both office and industrial workplaces followed by classroom problem-solving sessions. Students are expected to have a basic knowledge of how to evaluate ergonomic problems gained by either work experience or previous ergonomic training courses (see #10 above).

12. INDUSTRIAL VENTILATION. Presents basic and advanced concepts of industrial ventilation through lecture, laboratory sessions, and practical exercises. Emphasis is on the characteristics of air to include airflow and pressure relationships, design of ventilation systems used to prepare a basic concept design, selection of fans, and the role of dilution ventilation in industrial environments including calculations for predicting dilution ventilation rates. The course will also include a demonstration of the instruments and methods used in testing ventilation systems.

13. HEALTH HAZARD INFORMATION MODULE USER TRAINING. Presents the necessary background information and skills to use the HHIM system. The HHIM is the IH portion of the OHMIS. Focuses on using the HHIM software to enter the results of field surveys, editing existing data entries, use of standard reports, and using the ad hoc reporting capabilities. Also provides extensive hands-on data entry and relates to the application of the HHIM to the administration of a local program. Students become familiar with assessing priorities for further services, assigning exposure potential codes based on evaluative results or need for further study, and methods for determining health and noise RACs.

14. OCCUPATIONAL NOISE. Provides hands-on training with the Quest M-280 Noise Dosimeter. Each student must bring one (1) Quest M-280 Noise Dosimeter and a microphone to the training course. In addition to the hands-on training, this course also provides information in the

following areas: physics of sound, key elements of OSHA's Occupational Noise Standard and Hearing Conservation Amendment, and a basic explanation of sound level meters and noise dosimeters. This course is open to technicians and specialists.

15. MANAGEMENT CONCEPTS WORKSHOP. Presents practical and relevant knowledge and application of skills and abilities to all personnel actively managing IH programs at the DA facilities. Designed for technical specialists who are currently managing or may be promoted to supervisory and managerial positions, and who would like to enhance their management skills and abilities through an interactive learning experience.

16. IH CASE STUDIES COURSE. Designed for Senior Level IHs. Challenges one's thinking by seeking solutions to a variety of problems encountered in the field of IH.

17. HAZARDOUS WASTE OPERATIONS. Presents the training required in 29 CFR 1910.120, Hazardous Waste Operations and Emergency Response.

18. VENTILATION SYSTEM TROUBLESHOOTING. Focuses on common ventilation system problems. Presents the evaluation system for determining the source of trouble as well as methods used to correct it.

19. ORIENTATION FOR IHs. Presents newly hired IHs with basic information about employment in the Federal Government and specific information about the IH ACTEDS Plan.

20. SUPERVISOR DEVELOPMENT COURSE. This correspondence course presents first time supervisory personnel with the basic knowledge of civilian personnel administration procedures and techniques. A mandatory course supplemented by the local Civilian Personnel Office with "traditional" instruction in appropriate areas. Supervisors must complete this correspondence course before enrolling in the Leadership Education and Development course. (See #25 below.)

21. INTERN LEADERSHIP DEVELOPMENT COURSE. Training in the operational concepts and structure of the Army competencies of individual leader/follower skills, understanding of team development, organizational leadership elements of purpose, direction, and motivation, and familiarization with the career progression process of a DA civilian.

22. ON-THE-JOB TRAINING. Structured training at an installation designed to put into practice job skills learned in the classroom. Includes specialized work experiences and projects that gradually increase in complexity and scope to approach those performed by Senior Level IHs.

23. PERSONNEL MANAGEMENT FOR EXECUTIVES. Presents a broad perspective of personnel management in relation to the total management function, the relationship of operating and staff officials in the discharge of personnel management responsibilities, and the current and projected developments in personnel administration.

24. PERSONNEL MANAGEMENT FOR EXECUTIVES II. Designed to build on the original PME experience. Participants have a shared understanding of the theory, skills and issues of PME and an understanding of the rapport and trust. The program objectives for PME II are (a) build on the initial PME experience to specifically focus on personal leadership styles, (b) explore the various dimensions of leadership and human resource management as primary concerns of the DA executive.

25. LEADERSHIP EDUCATION AND DEVELOPMENT. Develops and hones leadership skills of supervisors. Focuses on situational leadership, motivation, communication, performance counseling, conflict management, team building, problem solving, values and ethics, and systems theory. Supervisors must complete the Supervisor Development Course before enrolling in this course. (See #20 above.)

26. ORGANIZATIONAL LEADERSHIP FOR EXECUTIVES. Hones leadership skills for the executive level supervisor. Expands the concepts and theories addressed in the Leadership Education and Development course.

27. EFFECTIVE BRIEFINGS AND PRESENTATIONS. Presents instruction in communication principles as well as the basic principles of business presentations. Covers how to plan presentations and provides guidance on choosing the best methods, materials, and location/environment for each situation. Techniques include presentations to inform, presentations to persuade, question and answer techniques, and technical presentations. Students, while learning these techniques, will be provided the opportunity to practice them and critique their own performance on video.

28. CHEMICAL PROTECTIVE CLOTHING. Presents the classification and categories of chemical protective clothing, the materials and methods of construction, and the criteria for selection. The processes of degradation, penetration, and permeation are presented, including the methods of testing. Also discussed are the causes, effects, and control of during stress from the use of chemical protective clothing.

29. SAFETY HAZARD RECOGNITION FOR THE IHs. Identifies commonly occurring safety hazards in general industry and construction workplaces, and cites the appropriate safety standards pertaining to these hazards. Identifies the sources of information on the causes and control of safety hazards such as the National Electric Code, National Fire Protection Association, and the American National Standards Institute standards.

30. DEVELOPING LISTENING AND MEMORY SKILLS. Through lectures, practical exercises, and discussions, the students learn to use practical techniques for improving listening skills; recognize and overcome barriers to effective listening; organize information transmitted orally by applying the principles of effective listening; and remember names, faces, facts, figures, and ideas more readily and accurately.

31. LEGAL ASPECTS OF OCCUPATIONAL SAFETY AND HEALTH. Identifies current occupational safety and health laws and legal procedures affecting the working environment. Specific topics include: Common Law Liability, Enforcement, Current Issues of Workers Right to Know, Limits of Protection, and Labor Management Relations.

32. COMPUTER LITERACY FOR IH TRAINEES. Presents an introduction to computers for a generic understanding of automated systems.

33. INDOOR AIR QUALITY. Presents the basic strategies of evaluating and correcting indoor air quality problems with special emphasis on the use of ASHRAE Standard 62-1989, Ventilation for Acceptable Indoor Air Quality, and ASHRAE Standard 55-81, Thermal Environmental Conditions for Human Occupancy, in evaluating work areas. Upon completion, attendees will evaluate indoor air quality complaints and heating, ventilation, and air conditioning equipment (to include operation and maintenance), and provide recommendations ensuring applicable standards are met.

34. TOXICOLOGY. Presents information on the acute and chronic effects of toxic substances and residues. Discusses human physiology, physiological mechanisms, health effects, and the target organs of the exposed.

35. CONTRACTING OFFICER REPRESENTATIVE COURSE. Presents an overview of the legal requirements and fundamentals of contracting that lead to the award of a contract. Emphasis is on contract situations where many contract administration functions are performed by the requiring activity's personnel, such as writing specifications and performing contract surveillance and/or overall contract monitorship. Designed to improve job performance of personnel outside the contracting career field who will be involved with contracts as a contracting officer's representative or quality assurance evaluator. Concentrates on service rather than supply, research and development, or construction contracts.

36. ARMY MANAGEMENT STAFF COLLEGE (AMSC). The AMSC focuses on strategy, doctrine, functional relationships, and systems relevant to the Total Army with emphasis on the sustainment base. Specifically, knowledge of military forces and doctrine, national policy and strategic studies, force integration, resource management, acquisition and logistics management, installation management, information management, management techniques, personnel management systems, health and fitness communicative arts, and program analysis and evaluation are addressed.

37. TECHNICAL PRESENTATION / PAPER. Subject of presentation should be of use/interest to DA. Presentation/paper should be delivered/distributed on an armywide basis to other occupational health professionals.

38. PUBLISHABLE RESEARCH PROJECT. Subject/focus of project should be of use/interest to DA. Findings should be published in a national peer reviewed professional journal.

39. MANAGER DEVELOPMENT COURSE. This correspondence course covers topics such as organizational culture, time management, setting objectives and plans, problem solving and

decision making, planning, programming and budgeting, manpower management, communications, information technology applications, the Army environmental program, EEO, professional ethics, internal management control, and Army Family Team building.

40. THE ARMY WAR COLLEGE (AWC). The AWC curriculum focuses on the role of land power as part of a joint or combined force in support of the U.S. national military strategy. The curriculum emphasizes theory, concepts, systems, and the national security decision-making process. It teaches through numerous case studies, exercises, and wargames. The student seminar group is the fundamental learning vehicle at the school.

41. THE INDUSTRIAL COLLEGE OF THE ARMED FORCES (ICAF). The ICAF curriculum focuses on broad-based national security decision making for senior policy makers in a dynamic world environment. The academic program emphasizes postgraduate, executive level education and focuses on enduring principles and concepts rather than transient contemporary events. The curriculum consists of interrelated courses which are presented in a balanced mix of seminars and lectures. The program employs the case method complemented by extensive student reading, written and oral presentations, classroom analysis, lectures by faculty members and prominent outside authorities, and a field study program.

42. THE NATIONAL WAR COLLEGE (NWC). The NWC curriculum focuses on national security policy and strategy with a joint, multiservice perspective. The curriculum is designed to expand and deepen the students' knowledge of national security matters and to sharpen their analytical skills. The academic program consists of prescribed core courses, advanced studies, and regional studies. Teaching methods include lectures, seminar discussions, case studies, and student exercises. The core curriculum provides students an understanding of the development and implementation of national security policy and strategy. It addresses the domestic and international contexts within which policy and strategy are developed, examines the national security decision making process, and focuses on the formulation and conduct of national security strategy, military strategy, and joint operations. Completion of the curriculum meets the educational requirements for Joint Specialty Officers.

43. THE LEGISLATIVE (LEGIS) FELLOWSHIP FOR EXECUTIVE DEVELOPMENT. LEGIS Fellows receive instruction and hands-on experience in a congressional office through training and developmental activities including 3 weeks of intensive briefings on the operations and organization of the U.S. Congress; a full-time assignment on the staff of a member, committee, or support agency or organization of the U.S. Congress; and, frequent seminars during the work assignment on Capitol Hill.

44. SECRETARY OF THE ARMY RESEARCH AND STUDY FELLOWSHIP. Fellowships may be awarded to include study or research at institutions of higher learning or in comparable educational or research environments which best support the project. Proposed projects must indicate a high potential value to the Army and benefit the applicant as well. The applicant must be able to complete the project within the time proposed. Fellowships are not substitutes for projects that should be done on a normal on-duty assignment and financed through mission funds.

45. LEAD-BASED PAINT ABATEMENT INSPECTOR. This course presents the EPA's model lead inspection curriculum and augments it with current research findings from leading investigators and practical advice from experienced inspectors. It will train those who are responsible for inspecting housing and public buildings for lead hazards and those who will design inspection projects. The course will focus primarily on state-of-the-art methods for determining lead in paint, soil, water, and settled dust. This course also features workshops that will provide each student with an opportunity to operate x-ray fluorescence analyzers to identify unknown and known lead paint film concentrations using real world samples. A field trip is included to give students an opportunity to conduct an inventory of items which would require lead testing as well as an opportunity to conduct those tests.

46. LEAD-BASED PAINT ABATEMENT PLANNER / DESIGNER. This course will train those individuals who will be conducting risk assessments in housing on the protocol issued by the Department of Housing and Urban Development (HUD), and the Risk Assessment Chapter of the newly-revised HUD Guidelines for the Evaluation and Control of Lead-Based Paint Hazard in Housing. This risk assessment course focuses on issues related to integrating in-place management and maintenance operations. Individuals completing this course will also be able to recommend various abatement and interim control programs. Personnel taking this course must have successfully completed the Lead-Based Paint Abatement, Inspector course. (See #45 above.)

47. LEAD-BASED PAINT ABATEMENT CONTRACTOR / SUPERVISOR. This course will familiarize individuals engaged in the supervision of residential lead abatement projects with safe, effective, and efficient abatement methods and procedures. In addition to the techniques for carrying out lead-based paint, soil, and dust, lead abatement emphasis is also placed on worker protection and safety, occupant protection, cleanup and clearance, waste disposal, resident and community relations, regulatory aspects, use of XRF analyzers, and legal and insurance issues.

48. LEAD-BASED PAINT ABATEMENT WORKER. An EPA-accredited course which includes lectures, demonstrations, hands-on laboratory work, and individual respirator fit testing.

49. RISK COMMUNICATION AND PUBLIC DIALOGUE WORKSHOP. This workshop deals with "low trust - high concern" audiences. Students will learn the "tools" to evaluate and communicate risk information. Upon hearing research results and case studies, students will develop a systematic approach for presenting "risk communication messages," whether they are spoken, written, or prepared for the media. Some topics included in the workshop are: the community as an interconnected group of stakeholders and interests, how people tend to perceive risk, perception versus how beliefs are formed, importance of credible messages, measuring dialogue effectiveness, news media interactions, and methods to test messages and public interactions.

50. ACTION OFFICER DEVELOPMENT COURSE (AODC). Correspondence course that prepares employees for the requirements of staff work with training similar to that of the Combat Arms and Services Staff School (CAS3). The AODC is designed for career interns (both local and those centrally funded by ACTEDS), and Army civilians newly appointed or promoted to journeyman level positions. Leadership support of this mandatory training will ensure that all Army civilian career

interns and new journeyman level employees possess the knowledge and skills required to function effectively as action officers. An action officer is a staff member with subject matter expertise who “works actions” on behalf of senior staff officers or commanders. The term “action officer” does not refer to duty position. This course describes “staff work” as generally practiced Armywide. Commanders are responsible to enroll these employees within 30 days of the appointment or promotion and successfully complete the AODC within six months of the enrollment. Although the AODC applies only to those employees in a two-grade interval profession, it is available to all other employees as desired. There are no prerequisites for enrollment. Unlike most other correspondence courses, the AODC requires progressive involvement of the supervisor. The supervisor of each student must enter into an agreement with the employee to provide opportunities for the employee to become proficient in conducting briefings and writing to the Army standards. Upon completion of the course material, the supervisor must certify the employee’s proficiency in these areas. Army Institute for Professional Development (AIPD) will grant credit for course completion when the supervisor’s certification and the student’s examination are received and processed. Commanders may grant waivers to employees who have previously completed both the non-resident and resident phases of CAS3. Course materials are available from AIPD using DA Form 145. Source: AIPD

51. DOD EXECUTIVE LEADERSHIP COURSE. Introduces the process by which DOD decisions are made through understanding of DOD missions, organization, and influences on these systems; ability to prepare and present complex briefing materials under realistic conditions; ability to speak clearly and effectively; ability to analyze complex materials and write concise reports; ability to meet and deal with senior decision makers in DOD; ability to apply selected problem-solving methodology to operational situations; ability to negotiate at any level in an organization; ability to resolve conflict more effectively; ability to afford greater respect and understanding of others' opinions and contributions; and ability to be a more effective team member through greater understanding of group dynamics. Competitive development course for GS/GM-12/13. Formal classroom instruction 50-55 days over 1 year, plus significant homework assignments. Source: DOD.

52. DOD SENIOR EXECUTIVE LEADERSHIP COURSE. This course trains the individual to integrate internal and external program/policy issues while ensuring consideration of key national and agency-wide goals, priorities, values, and other issues in the decision-making process. Attendees learn how to represent the work unit and/or organizations and how to coordinate with other work units and organizations effectively; guide and direct programs, projects, or policy development; obtain and allocate the financial and material resources necessary to support program or policy implementation; utilize human resources appropriately; and ensure that programs and policies are implemented with the desired outcome. Competitive development course for GS/GM 14/15 with 1 year supervisory experience. Formal classroom instruction 44 days plus 6 - 9 months developmental assignment in DOD, and homework over a one-year period. Source: DOD.

53. WOMEN’S EXECUTIVE LEADERSHIP PROGRAM. This course trains the individual to lead; communicate assertively; build effective teams; manage stress; portray a professional image; manage cultural diversity; coach and counsel; recognize and exert personal power; resolve conflicts; learn organizational survival techniques; and gain skill in making presentations. Attendees gain

knowledge of the Federal Personnel Management system; legal and ethical issues impacting managers; and factors which impact on career success. Competitive development course for GS-11-12 (men and women). Formal classroom 24 days, plus five months developmental assignment and special activities over a 13-month period. Source: OPM

APPENDIX H

GLOSSARY

ACRONYM

DEFINITION

ACCHRM	- Army Center for Civilian Human Resource Management
ACTEDS	- Army Civilian Training, Education and Development System
AEC	- Army Environment Center
AIPD	- Army Institute for Professional Development
ALMC	- Army Logistics Management College
AMEDDC&S	- U.S. Army Medical Department Center and School
AMC	- Army Materiel Command
AMSC	- Army Management Staff College
AODC	- Action Officer Development Course
APG	- Aberdeen Proving Ground, MD
APPD	- AMEDD Personnel Proponent Directorate
AR	- Army Regulation
ASA(M&RA)	- Assistant Secretary of the Army (Manpower and Reserve Affairs)
ASHRAE	- American Society of Heating, Refrigeration, and Air Conditioning Engineers
AWC	- Army War College
CAL	- Center for Army Leadership
CHPPM	- Center for Health Promotion and Preventive Medicine
CIH	- Certified Industrial Hygienist
CONUS	- Continental United States
DA	- Department of the Army
DOD	- Department of Defense
DOHS	- Director of Health Sciences
EPA	- Environmental Protection Agency
ERDEC	- Edgewood Research, Development and Engineering Center
FC	- Functional Chief
FCR	- Functional Chief Representative
HHIM	- Health Hazard Information Module
HTRW	- Hazardous Toxicological and Radiological Waste
HUD	- Housing and Urban Development
ICAF	- Industrial College of the Armed Forces
IDP	- Individual Development Plan
IH	- Industrial Hygiene / Industrial Hygienist
IHIT	- Industrial Hygienist in Training
IHT	- Industrial Hygiene Technician
KSA	- Knowledge, Skills, and Abilities
MACOM	- Major Army Command
MTP	- Master Training Plan
NGB	- National Guard Bureau
NIOSH	- National Institute for Occupational Safety and Health
NWC	- National War College

OCE	- Office of the Chief of Engineers
OCONUS	- Outside Continental United States
OHMIS	- Occupational Health Management Information System
OJT	- on-the-job training
OSHA	- Occupational Safety and Health Administration/Act of 1970
PMCD	- Program Manager for Chemical Demilitarizaion
PPE	- personal protective equipment
RAC	- Risk Assessment Code
SARSF	- Secretary of the Army Research and Study Fellowships
SME	- subject-matter expert
SOW	- statement of work
STA/TDY	- on station or on temporary duty
TAPES	- Total Army Performance Evaluation System
TSG	- The Surgeon General of the U.S. Army
UR	- Universal Recommended, Priority III (UR)
U1	- Universal Mandatory, Priority I (U1)
U2	- Universal Mandatory, Priority II (U2)
USACE	- U.S. Army Corps of Engineers
USACHPPM	- U.S. Army Center for Health Promotion and Preventive Medicine
USAEC	- U.S. Army Environmental Center

APPENDIX I

REQUEST FOR EQUIVALENCY CREDIT FOR MANDATORY FUNCTIONAL TRAINING

Privacy Act Statement: Authority EO 9397, November 1993 (SSN). The principal purpose of this form is to document credit for equivalency training. The purpose of soliciting the social security number is for positive identification and for processing in the Army Civilian Personnel System (ACPERS). Routine use of this form is for verification by the individual's supervisors, functional chiefs, functional chief representatives, personnel proponents, and the individual's personnel office to ensure that mandatory functional training requirements have been fulfilled. Failure to provide requested information precludes effective evaluation of equivalency credit for mandatory functional training and update of individual's training record in ACPERS.

SECTION I - EMPLOYEE/COURSE INFORMATION (Type or print in ink)

1. LAST NAME, FIRST NAME, MI

2. SOCIAL SECURITY NUMBER

3. POSITION TITLE

4. PAY PLAN/SERIES/GRADE

5. CAREER PROGRAM TITLE

6. CAREER FIELD TITLE

5a. CAREER PROGRAM NUMBER

6a. CAREER FIELD NUMBER

IDENTIFICATION OF COURSE FOR WHICH EQUIVALENCY IS REQUESTED

7a. COURSE NUMBER

7b. COURSE LEVEL (Entry, Intermediate, Senior, etc.)

7c. COURSE TITLE

7d. COURSE OFFERED BY (Name of college, institution, school, etc.)

ADDRESS (Include street, city, state, zip code, etc.)

WWW-R

REQUEST FOR EQUIVALENCY CREDIT FOR MANDATORY FUNCTIONAL TRAINING

8. CURRENT ORGANIZATION (Include office symbol, location, address, zip code)

9. EMPLOYEE SIGNATURE

10. DATE SIGNED

SECTION II - TRAINING INFORMATION

11. TRAINING COMPETENCIES ACQUIRED THROUGH (Check as applicable)

- WORK EXPERIENCE (Attach detailed explanation of work assignments. Identify competencies and explain how they were acquired.)
- FORMAL EDUCATION (Attach transcript(s) and descriptions of course work, to include course title and course level. Identify competencies and explain how they were acquired.)
- CORRESPONDENCE STUDY (Attach certificate(s) and description of course work. Identify competencies and explain how they were acquired.)
- SELF-DEVELOPMENT ACTIVITIES (Attach detailed explanation. Identify competencies and explain how they were acquired.)

SECTION III - SUPERVISOR'S RECOMMENDATION

12. CONCURRENCE/NON-CONCURRENCE (Check one)

- CONCUR - (Based on evaluation on individual's documentation, requisite competencies have been attained.)
- NON-CONCUR - (Return documentation to individual.)

13. HOW WERE EQUIVALENCIES DETERMINED? (Check one)

- CASE-BY-CASE BASIS STANDARD EQUIVALENT

(Exceptions: See AR 690-400, Chapter 410, Subchapter 19, Army Civilian Training, Education and Development System (ACTEDS), paragraph 19-7(4).)

WWW-R

REQUEST FOR EQUIVALENCY CREDIT FOR MANDATORY FUNCTIONAL TRAINING

14. SUPERVISOR'S NAME AND TITLE

15. CURRENT ORGANIZATION (Include office symbol, location, address, and zip code.)

16. SUPERVISOR'S SIGNATURE

17. DATE SIGNED

SECTION IV - APPROVING AUTHORITY

18. APPROVAL/DISAPPROVAL

_____ APPROVED (Remove attachments and return to individual's supervisor.
Forward WWW-R to individual's servicing Civilian Personnel Office.)

_____ DISAPPROVED (Return WWW-R and attachments to individual's
supervisor.)

19. APPROVING OFFICIAL'S NAME AND TITLE

20. CURRENT ORGANIZATION (Include office symbol, location, address, and zip code.)

21. SIGNATURE OF APPROVING OFFICIAL

22. DATE SIGNED

WWW-R

REQUEST FOR EQUIVALENCY CREDIT FOR MANDATORY FUNCTIONAL TRAINING

SECTION V - DISPOSITION BY CIVILIAN PERSONNEL OFFICE

23. DOCUMENTATION (Check applicable Army Civilian Training, Education and Development System (ACTEDS) Data Identification Number (DIN) Code(s) for use in coding training/equivalency information. Reference Field Level Army Civilian Personnel System (ACPERS) User's Manual, Chapters 5 (CA), 6 (CE), and 8.)

23a. DATE OF ACPERS INPUT _____
(year/month/day)

23b. WAS ACPERS DIN FXL USED? _____ Yes _____ No

24. FILING INSTRUCTIONS: File WWW-R on the right side of the employee's (see Item No. 1) Official Personnel Folder.

WWW-R

APPENDIX J

PRIVACY ACT STATEMENT

Section 4103 of Title 5 to U.S. Code authorizes collection of this information. This information will be used by staff management personnel and the Personnel Office servicing your locality, to plan and/or schedule training and development activities. Collection of your Social Security Number is authorized by Executive Order 9397. Furnishing the information on this form, including your Social Security Number, is voluntary .

INDIVIDUAL DEVELOPMENT PLAN

NAME:	SSN:	PERIOD COVERED:	CAREER FIELD:
POSITION TITLE/GRADE:		ORGANIZATION:	
1. DEVELOPMENTAL OBJECTIVES (Skills/Performance Enhancement, Career Accomplishments, Etc.)			
a. Short-Term Objectives		b. Long-Term Objectives (3-5 Years)	
1.		1.	
2.		2.	
3.		3.	
4.		4.	
5.		5.	
6.		6.	

2. MANDATORY TRAINING FOR ACCREDITATION							
Course Title/Number	Objective Supported	Priority	Course Provider	Date Required	Hours	Tuition	Est Trvl/PD
1.							
2.							
3.							
4.							
5.							
6.							

3. REQUIRED TRAINING (Priority 1 or 2)							
Course Title/Number	Objective Supported	Priority	Course Provider	Date Required	Hours	Tuition	Est Trvl/PD
1.							
2.							
3.							
4.							
5.							
6.							

7.							
8.							

4. RECOMMENDED TRAINING (Priority 2 or 3)

Course Title/Number	Objective Supported	Priority	Course Provider	Date Required	Hours	Tuition	Est Trvl/PD
1.							
2.							
3.							
4.							
5.							
6.							
7.							
8.							

5. DEVELOPMENTAL ASSIGNMENTS (LTT, Rotational Assignment, Etc.)

Type of Assignment	Location	Proposed Dates	Est Trvl/PD
1.			
2.			
3.			
4.			
5.			
6.			

6. TRAINING OR SELF DEVELOPMENT COMPLETED DURING LAST FY

Training Course or Developmental Activity	Location	Completion Date	Hours
1.			
2.			
3.			
4.			
5.			
6.			

I certify that I will support the training and/or development outlined in this IDP and will recommend approval of training costs in each FY budget. I have discussed this with the employee for whom this IDP has been prepared and concur with training documented.

Program Manager

Date

Director

Date

I have discussed my career goals and the training or development needed to achieve these goals. I have included only goals that I can realistically expect to achieve during the time period specified.

Employee

Date