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Navy and Marine Corps Public Health Center Technical Manual

NAVY MEDICINE HEARING CONSERVATION PROGRAM TECHNICAL MANUAL

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The 2020 edition of the manual is an update of the 2008 edition, and was developed to complement and clarify, but not replace, applicable Navy Instructions. It defines the standard of care for delivery of Hearing Conservation Program services.

Reviewed and Approved

A handwritten signature in black ink, appearing to read 'R. J. Hawkins', with a long, sweeping flourish extending to the right.

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Commander

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I. Acronyms

ANSI	American National Standards Institute
ASN	Assistant Secretary of the Navy
BUMED	Bureau of Medicine & Surgery
CFR	Code of Federal Regulation
CAOHC	Council for Accreditation in Occupational Hearing Conservation
DoDI	Department of Defense Instruction
DON	Department of the Navy
DOEHRS-HC	Defense Occupational and Environmental Health Reporting System- Hearing Conservation
DR	Data Repository
ECAA	Enterprise Clinical Audiology Application
ESAMS	Enterprise Safety Application Management System
FFD	Fitness for Duty
HCP	Hearing Conservation Program
HCPM	Hearing Conservation Program Manager
HCT	Hearing Conservation Technician
HPD	Hearing Protection Device
HRO	Human Resource Office
IH	Industrial Hygiene
JKO	Joint Knowledge Online
MEB	Medical Evaluation Board
MEDIG	Medical Inspector General
MHS	Military Health System
MOA	Memorandum of Agreement
MOE	Measurements of Effectiveness
MOHCAT	Mobile Hearing Conservation Audiometric Truck
MOS	Military Occupational Specialty
MRI	Magnetic Resonance Imaging
MRRS	Medical Readiness Reporting System
MTF	Military Treatment Facility
NEC	Navy Enlisted Classification
NMCPHC	Navy and Marine Corps Public Health Center
NIHL	Noise Induced Hearing Loss
NRR	Noise Reduction Rating
OA/HC	Occupational Audiology and Hearing Conservation
OBA	Octave Band Analyzer
OIC	Officer in Charge
OMPA	Occupational Medicine Program Assessment
OPNAV	Office of the Chief of Naval Operations
OPNAVINST	Office of the Chief of Naval Operations Instruction
OSHA	Occupational Safety and Health Administration
PB	Phonetically Balanced
PCO	Prospective Commanding Officer
PHI	Protective Health Information
PII	Personally Identifiable Information

PTS	Permanent Threshold Shift
PXO	Prospective Executive Officer
SDOC	Service Duty Occupational Code
SECNAV	Secretary of the Navy
SEG	Similarly Exposure Group
SOH	Safety and Occupational Health
SOP	Standard Operating Procedures
SRT	Speech Reception Threshold
STS	Significant Threshold Shift
TCAPS	Tactical Communication and Protection Systems
TWA	Time-Weighted Average
WESS	Web-Enabled Safety System

II. INTRODUCTION

Hearing is a multidimensional sense that functions 24 hours a day, 7 days a week in a 360 degree sphere. Good hearing is important for communicating with others in our personal lives and at work. In certain situations, distinct hearing and precise communications are critical, where a lack of clear understanding can trigger serious consequences. Military occupational environments exemplify those venues. The military is a noisy enterprise. Tactical training, operational combat, shipboard operations and shore industrial environments are inherently noise hazardous occupations. Noise Induced Hearing Loss (NIHL) and tinnitus are the most prevalent occupational health risks in the military. Unprotected exposure to hazardous noise can cause temporary or permanent hearing loss, compromise verbal communications, degrade the ability to discern important auditory signals in the environment, and jeopardize human safety and operational efficiency.

The objectives of Occupational Audiology (OA) and the Hearing Conservation Program (HCP) are to prevent occupational NIHL through proactive implementation of outreach, education and prevention activities, and to preserve and enhance hearing capability by adhering to regulatory measures, implementing program guidelines, and applying technological advances.

A. Purpose

1. The purpose of the Navy Medicine HCP Technical Manual (TM) is to provide supplemental regulatory guidance to the Occupational Safety and Health Administration (OSHA), Department of Defense (DoD), and Office of the Chief of Naval Operations (OPNAV) 5100 series of instructions for the consistent and effective implementation of the Navy and Marine Corps HCP.

B. Guidance

Title 29, Code of Federal Regulation (CFR), Section 1910.95, Occupational Noise Exposure^a contains the OSHA regulation regarding hearing conservation. OSHA guidance provides the minimum standards regarding the regulation and monitoring of hearing conservation for business and industry. Specific HCP guidance for uniformed Armed Service members, military equipment, military systems and military operations is outlined in DoD regulations.

In addition, Title 29, CFR, Part 1904 Recording and Reporting Occupational Injuries and Illnesses^b mandates recording and reporting of work-related hearing loss to OSHA for civilians enrolled in the HCP.

DoD and OPNAV instructions are based on federal OSHA law but are often more stringent due to longer exposure times and noise levels. Combat operations are exempt from meeting OSHA regulations. Local Commands establish specific installation policies or standard operating procedures (SOPs) to implement the HCP.

1. Department of Defense Instruction (DoDI) 6055.12^c, Hearing Conservation Program establishes policy to protect all DoD personnel from hearing loss resulting from operational and occupational noise exposure through a continuing, effective, and comprehensive HCP. DoD Service Components must develop and maintain a written plan and ensure the implementation of a comprehensive HCP.

2. The Assistant Secretary of the Navy (ASN) determines Safety and Occupational Health (SOH) policy for the Department of the Navy (DON). OPNAVINST 5100.23, Navy Safety and Occupational Health Program Manual^d is published to provide overall Navy policy for the management of the total SOH program. OPNAVINST 5100.23 provides policy, procedures, and guidance pertaining to responsibilities set forth by the ASN and Chapter 18 is specific to Hearing Conservation and Noise Abatement.

General concepts and provisions of OPNAVINST 5100.23 apply to all Navy; however, exceptions are made for military-unique equipment, systems, and operations such as forces afloat. OPNAVINST 5100.19, Navy Safety and Occupational Health Program Manual^e for Forces Afloat is the primary SOH resource document for implementing the SOH Program for afloat commands. The purpose of OPNAVINST 5100.19 is to provide commanding officers, safety officers, managers, supervisors, and workers for afloat commands with a document that gives guidance and direction necessary to implement the SOH Program. Section B of OPNAV 5100.19 is divided into Major Hazard-Specific Elements and Chapter B4 pertains specifically to Hearing Conservation.

3. In addition to the OPNAVINST 5100 series, the Marine Corps Order 6260.3 series, Marine Corps Hearing Conservation Program^f establishes the HCP policy for Marine Corps personnel. USMC personnel must meet reference and annual audiogram requirements and audiogram dates must be recorded and tracked in the Medical Readiness Reporting System (MRRS).

4. Appendix A provides a list of supporting documents that can be found on the Navy and Marine Corps Public Health Center (NMCPHC) website.

C. Responsibilities

1. Bureau of Medicine and Surgery (BUMED) Audiologist. Establishes policy and procedures to implement and manage a comprehensive Department of the Navy Hearing Conservation Program.

a. Serves as the subject matter expert for hearing conservation-related matters for activities under the command and control of Chief, BUMED.

b. Coordinates the exchange of hearing conservation information between headquarters commands to ensure familiarity with BUMED policies and procedures, and that they are implemented consistently across Navy Medicine.

2. NMCPHC Occupational Audiology and Hearing Conservation (OA/HC) Division Head. Provides appropriate guidance and direction and serves as consultant to Navy audiologists, occupational health physicians, occupational health nurses and other health professionals in matters related to occupational audiology, hearing conservation, and noise control.

a. Provides input into the formulation of Navy Medicine policy concerning occupational audiology, hearing conservation, and noise control.

b. Serves as the Navy's Defense Occupational and Environmental Health Reporting System-Hearing Conservation (DOEHRS-HC) Program Manager for system development, field evaluation and operation. In this capacity, the NMCPHC OA/HC Division Head provides professional analysis of DOEHRS-HC data and develops authoritative scientific reports.

c. Reviews military treatment facility (MTF) requests for occupational audiology, hearing conservation and noise measurement equipment.

d. Provides technical oversight of the NMCPHC Calibration Laboratory which is responsible for distributing, repairing, maintaining, and calibrating audiometric, sound measuring, and other related occupational health equipment.

e. Provides standardization and quality assurance and oversight of Hearing Conservation Technician (HCT) training programs Navy-wide. Ensures training programs at a minimum meet the standards of the Council for Accreditation in Occupational Hearing Conservation (CAOHC), the nationally recognized accrediting body for hearing testing certification.

(1) All courses are required to be coordinated, scheduled and/or canceled with NMCPHC no later than one week prior to the end of the preceding month the course is being held. This can be done via email to the NMCPHC Information Systems and Training Specialist. Information required includes: Start date, location, course director, DOEHRS-HC instructor, and confirmation of CAOHC certification and CAOHC course number (if applicable). Also, NMCPHC has an inventory of available training equipment that can be provided (based on availability) to support courses. Course Directors will submit the request for training equipment at the time of scheduling the HCT Certification Course. Training equipment will be shipped back to NMCPHC no later than the first business day after course completion.

(2) Course Directors must follow the standardized five day HCT Certification Course curriculum that entails a written test, practical test, and oral patient counseling exam in order to meet certification requirements. There is a limit of one student per computer, audiometric hardware, and DOEHRS-HC software training set. It is recommended that Course Directors have students print manuals locally prior to class.

(3) For the course to be closed out and certifications to be approved by NMCPHC student rosters and student course critiques must be submitted within three business days of course completion.

f. Maintains liaison with and provides appropriate input to the Naval Medical Research and Development Command. Plans, recommends, coordinates and evaluates pilot projects with innovative audiometric techniques, procedures and equipment.

3. NMCPHC Information Systems and Training Specialist. Provides resolutions to users with DOEHRS-HC and Data Repository (DR) software and hardware issues. Assists users with system trouble calls and ensures that problems are resolved. Shares solutions to common problems with the Audiology community, Program Managers and DOEHRS user communities and reports unusual problems to the DOEHRS-HC and DR Functional Managers.

a. Plans and develops educational strategies and materials to ensure all users at all audiometric test sites are fully competent with DOEHRS-HC and DR software and hardware use. Provides on-site training on the DOEHRS-HC system, as needed, to users and HCP Managers.

b. Monitors all audiometric test sites and works to ensure that all users are entering accurate and appropriate data into the DOEHRS-HC system. Works to ensure all sites maintain current DOEHRS-HC software, look-up tables, Unit Identification Code Finder software and other resources needed, specific to each test site, for optimum quality data collection.

c. Performs routine analysis of data. Monitors all exported DOEHRS-HC data to the DR for appropriate quantity and quality of data. Proactively educates and assists users and sites with data export and compliance issues to improve data quality/quantity.

4. NMCPHC Calibration Laboratory. Manages maintenance plans, practices and updates programs for all assigned equipment.

a. Resolves problems pertaining to the design, installation, maintenance, operation, calibration and repair of the assigned Industrial Hygiene, audiometric and other medical equipment pertaining to the HCP.

b. Maintains database for inventory control of audiometers, calibrators, sound level meters and dosimeters. Uses Defense Medical Logistics Standard Support (DMLSS) for the inventory control of HCP audiometers.

c. Per NAVMED P-5132, Equipment Management Manual^g, NMCPHC will procure, own, calibrate, and manage all Navy Medicine HCP audiometers.

d. Provides Navy-wide support for audiometer and sound level measuring equipment calibration, maintenance, repair and replacement. For any audiometers needing repair, immediate contact should be made to the NMCPHC Calibration Laboratory to coordinate the transfer of new equipment to replace the faulty equipment. Faulty equipment will be returned to NMCPHC for troubleshooting.

e. Provides technical assistance for equipment operation, life cycle management and equipment replacement.

f. Maintains the DOEHRS-HC training equipment utilized by the Hearing Conservation Program.

5. Regional Hearing Conservation Program Manager (HCPM). Regional HCPMs serve as the senior Occupational Audiology and Hearing Conservation subject matter experts for the Navy Medicine Regions, and are responsible for oversight and implementation of Navy/USMC HCPs throughout the Region.

a. Establishes regional business rules and benchmarks, and facilitates policy development/improvement.

b. Formally evaluates the HCPs of echelon 4 subordinate activity MTFs at least every three years as part of the Safety and Occupational Health Management Evaluation (SOHME) in accordance with appendix B references (d) and the Bureau of Medicine Instruction 5100.13, Safety and Occupational Health Program^h. At the discretion of the Regional HCPM or the request of an MTF, technical or informal program assist visits may be provided.

c. Collaborates with Medical Inspector General (MEDIG) SOH inspectors to ensure quality, stable, sustainable, effective programs and promote standardization of best practices across the enterprise.

d. Facilitates Occupational Audiologist cross-leveling support coverage at MTFs within the region. When MTFs have gapped Occupational Audiologist billets, Regional HCP Managers work to identify and designate another Occupational Audiologist within the region (military or civilian) to temporarily backfill a gapped position. When there is no available Occupational Audiologist within the region to support the gapped billet, the Regional Human Resources/Manpower Office forwards the cross-leveling support request to the other Navy Medicine Region or to the Navy Audiology Specialty Leader to identify a potential candidate to provide temporary coverage to the requesting command.

e. Briefs Prospective Commanding Officers (PCO) and Prospective Executive Officers (PXO) on the status of the gaining MTF's HCP.

f. Upon completion of each fiscal year, Regional HCP Managers review HCP Self-Assessments from each of the MTFs under their purview to evaluate the status of each MTF's program and (when possible) provide support and/or resources to facilitate improvements at commands where weaknesses or challenges exist.

g. Reviews and consolidates MTF HCP metrics and forwards to BUMED M44 at the end of each fiscal year.

6. MTF Hearing Conservation Program Manager. An MTF HCP Manager will be designated by appointment letter. The senior MTF Occupational Audiologist is the appropriate professional to serve as MTF HCP Manager. In the absence of an OA, the Regional HCP Manager will assist the MTF commanding officer in identifying an individual within the MTF's Area of Responsibility (AOR) to provide local program management and an OA to provide program oversight support via Memorandum of Agreement (MOA). MTF HCP Managers are responsible for implementing the Navy Medicine components of the HCP for noise hazard commands within the MTF AOR.

a. Ensures standardization of patient care and business practices across the MTF AOR. Provides centralized oversight, operational management, and technical supervision of OA and HCP personnel, services and resources within the MTF, branch clinics, and mobile facilities. Convenes at least semi-annual meetings and/or training with HCP staff to facilitate effective leadership, communication, and program/process improvement efforts.

b. Ensures adequate staffing, equipment, supplies, operating target, and access to OA and HCP care and services at MTFs in the AOR. The BUMED Occupational Audiology Staffing Model (OASM) will be used as a guide to determine appropriate staffing levels.

- c. Oversees staffing issues to include initiating, participating and facilitating in hiring actions and orientation of OAs and HCP personnel. Facilitates training, certification, and continuing education for HCP staff.
- d. Provides technical review of HCP notifications, correspondence and reports.
- e. Conducts medical record reviews, mentoring, and performance and competency evaluations for HCP staff.
- f. Monitors and evaluates DOEHRS data quality from HCP point of care sites and resolves discrepancies. Ensures all HCP workload is appropriately captured in patient Electronic Health Record (EHR) systems and all time spent performing HCP functions is accurately captured in the Defense Medical Human Resource System – Internet (DMHRSi) under the “FBN” Medical Expense and Performance Reporting System (MEPRS) code.
- g. Manages MTF HCP equipment inventory, maintenance, calibration schedules, and clinic space needs. Coordinates with leadership on facility design of new and renovated spaces and/or the relocation of OA and HCP personnel. Consults with the Regional OA/HCPM prior to purchasing new audiometric booth(s).
- h. Completes annual HCP Self-Assessment and metrics per reference (h). Annually briefs MTF leadership on overall HCP status, self-assessment findings, metrics, and plans for improvement. Submits assessment and metrics data to the cognizant Navy Medicine Regional HCP Manager per established timelines.
- i. Maintains HCP preparedness across the MTF enterprise for SOHME and Navy MEDIG inspections. Resolves all formal findings.
- j. Maintains a comprehensive list and contact information of all HCP enrolled commands and command Safety Managers/Officers and updates it semi-annually. See section 7.b.(1) below for required enrollment data elements.
- k. Participates in ongoing communication and collaboration with noise hazard commands to evaluate HCP effectiveness and work toward the common goal of hearing loss prevention.
- l. Monitors and tracks program effectiveness of all supported activities. Provides documented annual HCP performance reports to supported commands/activities and maintains these documents for at least 5 years for inspections, audits, or epidemiological trending.
- m. Ensures that formal hearing injury notifications are provided to employees and their supervisors within 21 days of OA confirmation of permanent threshold shift (PTS) or OSHA recordable hearing loss.
- n. Conducts quarterly review of DOEHRS data entry integrity and DR uploads for all DOEHRS users in the AOR. Analyzes DOEHRS data quality, and addresses and corrects data integrity issues. Quarterly reviews DR accounts and archives inactive users.
- o. The detailed program management checklist can be found on the NMCPHC website.

7. Occupational Audiologist. For the purpose of HCP Management, the Occupational Audiologist/Hearing Conservation Program Manager must maintain a close collaborative relationship with command leadership and Safety Managers of supported noise hazard commands, in addition to MTF Industrial Hygiene and Occupational Medicine professionals. Effective program management requires the following:

a. Work Schedule. OA's will allocate no more than 50 percent of the OA work schedule toward patient care to enable the proper distribution of efforts toward the primary mission of hearing loss prevention. Patient care responsibilities include:

- (1) Reviewing referrals and determining disposition.
- (2) Providing comprehensive diagnostic audiology care and services to referred patients.
- (3) Conducting medical qualification assessments on HCP enrollees that meet criteria for further audiological and fitness for duty evaluation.

b. At least 50 percent of the work schedule must be allocated to hearing loss prevention outreach efforts, program oversight, and management functions. OAs must maintain objective tracking documentation on how this time is spent. This includes:

(1) Maintaining a current, comprehensive directory of supported noise hazard commands within the MTF AOR. For each supported command and in collaboration with the Safety Officer and Work Area Supervisor (see Sections C.13 and C.14), the following minimum documentation is maintained: Unit Identification Code (UIC), HCP enrollment numbers, estimated program compliance data, PTS/hearing injury rates, and contact information for key HCP stakeholders. The directory must be updated at least semi-annually. Collaborative partnerships with IH personnel and the ability to access noise surveys and shared files is essential for maintaining current HCP directory information.

(2) Prevention Outreach. Each full-time OA must complete a minimum of 12 documented HCP training or hearing loss prevention events per fiscal year with supported noise hazard commands. Prevention Outreach must be tracked in Excel or other effective database tracking system and kept on file for at least 5 years. The objective of these events is to provide tangible program assistance and hearing loss prevention services that yield effective outcomes and return on investment (i.e., reductions in hearing injury/risk, greater awareness of noise hazard impacts, hearing protection use/fit improvements). Prevention Outreach may include:

(a) Worksite Assessments. Worksite assessments include a walk-through of the noise hazard worksite area(s) and review/evaluation of overall program compliance, worksite noise hazards, noise hazard signs/labels, hearing protection options/availability, employee communication requirements/challenges, potential for engineering controls/noise hazard reduction, and providing professional expertise and consultation on hearing loss prevention and HCP improvement initiatives. A worksite assessment report is sent to the command leadership/Safety Manager upon completion.

(b) Risk-Based Intervention/Support. Conducting more detailed, customized, targeted hearing loss prevention initiatives by prioritizing assistance to commands with the highest hearing injury rates, and assessing possible worksite elements, work practices and employee habits that influence injury risk. Working collaboratively with Safety, IH and other professionals to implement processes/procedures that mitigate risk.

(c) Conducting group HCP education or other substantial knowledge-based interactive hearing loss prevention activities for noise exposed personnel, supervisors, command leadership, or unit Safety personnel. Group training services may be captured as encounters in the Electronic Health Record.

(d) Providing group consultation on hearing protective device (HPD) selection, including advanced or custom protection options, or conducting HPD fit check assessments. HPD fittings and Fit-Check services must be captured as encounters in the Electronic Health Record.

(e) Base Safety Council meetings. Providing/presenting HCP information and statistics, such as: noise hazard command program performance data (estimated compliance, hearing injury/PTS), HPD options/samples/fitting demonstrations/new technology, HCP Self-Assessment checklist items, literature on available HCP services, and OA/HCP contact information.

(f) Networking/Relationship building. Maintain monthly email communications with 100% of noise hazard command safety managers and officers in the AOR. Establish systematic contact and on-site collaborative meetings with noise hazard command Safety Managers in the AOR to develop proactive communication and facilitate reciprocal cooperative relationships in the prevention of occupational hearing loss.

(3) Clinic Assist Visits. OAs who provide oversight to multiple HCP points of service locations must visit and assess each site quarterly. Clinics outside a 120 mile radius must be visited at least annually. An After Action Report is provided to the clinic Officer-in-Charge (OIC). Technician refresher training is encouraged during visits. See the NMCPHC website for Clinic Assist Visit checklist. Infection control protocol will be reviewed as part of the Clinic Assist Visit. See the NMCPHC website for infection control guidance.

(4) Hearing Conservation Technician Certification Courses. Periodic standardized hearing conservation technician certification courses are conducted to maintain adequate staffing and credentialing of certified technicians in the AOR. Course frequency is commensurate with local demands. OAs must maintain current hearing conservation Course Director credentials through CAOHC. See section II.C.2.e under Responsibilities for guidance on conducting HCT Certification Courses.

(5) Annual Technician Competency Evaluations. The provision of audiometry and other hearing conservation support services is accomplished under the supervision of an audiologist, otolaryngologist, occupational medicine physician, or other qualified physician. Technician proficiency in audiometric test instructions, administration, patient education, and HPD fittings is evaluated and documented at least annually as part of the certification maintenance process using the standardized form that can be found on the NMCPHC website. Technician Competency Evaluations are completed on all active certified technicians in the AOR. Active technicians are

those who have administered audiograms within 1 year. Newly certified technicians are considered fully qualified and a competency evaluation is not required until 1 year from certification date.

(6) Hearing injury notification reports. Formal notification is provided to the patient and his/her supervisor within 21 days of OA confirmation of a work-related PTS or OSHA recordable hearing loss. A sample report is located on the NMCPHC website.

(7) HCP Performance Reports. Annual fiscal year HCP performance reports are provided to supported commands, and must include estimated compliance and PTS/hearing injury rates. The NMCPHC website provides a template for the HCP Performance Report.

c. Audiology Equipment. The MTF or regional OA must be involved in all audiology equipment purchases and installations. Prior to submitting a procurement package, consult the cognizant Regional HCPM on all audiometric test booth purchases for review. See section V for a listing of current standard of care audiology equipment.

d. Peer Review. OAs will complete peer review process in accordance with local command credentials protocol. In the absence of a qualified Occupational Audiologist to provide peer review services, the Regional Audiologist will assist with coordinating a viable peer review process.

8. Hearing Conservation Technician (HCT).

- a. Educates HCP enrollees on the components, requirements, and benefits of the HCP.
- b. Reviews ear and hearing information from patient's medical record. Obtains patient history on conditions that may contribute to loss of hearing sensitivity, or that may affect hearing test results. Documents any significant patient history in the medical record.
- c. Performs otoscopic examination of ear canals to ensure there are no medical contraindications to testing, such as excessive ear wax, foreign bodies, evidence of infection or disease or other conditions that may affect hearing or the insertion of earplugs. When contraindications to testing are noted, the HCT refers the employee to appropriate provider for evaluation, treatment and disposition.
- d. Prepares patients for hearing tests. Gives clear, concise test instructions. Administers air conduction audiometric tests. For HCP enrolled patients, compares annual hearing test results to the most current Reference Audiogram (DD Form 2215) in the patient's medical record to determine if a Significant Threshold Shift (STS) exists. Reviews audiogram results with patients. Enters test results in the patient's medical record.
- e. Schedules and performs follow-up tests, tympanometry, Hearing Protection Device (HPD) checks/fittings, or other procedures, as required. Refers patients with STS on final follow-up test to Occupational Audiology. Consults with OA on referral and disposition of patients with asymmetrical hearing loss, low frequency loss or unusual/abnormal test results. Adheres to referral guidelines outlined in section V.

f. Ensures fit of issued HPDs, demonstrates proper use and discusses advantages, limitations, and possible consequences of misuse or non-use. Educates on proper care and maintenance of hearing protective devices. Determines special hearing protective needs based on patient needs, concerns and work environment.

g. Ensures proper maintenance of audiometric equipment. Prior to daily patient testing, performs a functional and a biological calibration check of the equipment. Records results on a DD Form 2217, or stores results in microprocessor. Follows infection control guidelines found on the NMCPHC website for cleaning patient headphones and patient exam areas.

h. Electronically transmits hearing conservation test result data to the DOEHS DR daily. Prepares and submits other hearing conservation reports as needed or as requested by Occupational Audiology.

9. NEPMU Audiologist. Provides HCP oversight and consultation to supported operational platforms.

a. Conducts shipboard Technical Assist Visits for specified commands (in accordance with local agreements) to monitor HCP compliance and provide trend analysis.

b. Supports readiness for fleet safety and medical inspection requirements, such as the Board of Inspection and Survey (INSURV), Naval Safety Center Survey, Medical Readiness Inspection, and Afloat Training Group Inspection.

c. Conducts annual HCT Competency Evaluations for shipboard HCTs with specified commands.

d. Provides support to remote active duty service members receiving HCP audiograms outside of the MTF. Support includes reviewing these audiograms, inputting the audiograms into DOERHS-HC, and recommending follow-up testing as needed.

10. Clinical Audiologist. Provides auditory and vestibular diagnostic evaluations, aural rehabilitation, hearing aid fittings, disposition, medical record documentation, and appropriate tertiary care referral(s).

11. Industrial Hygiene (IH): Responsible for conducting noise exposure assessments and designating noise hazardous areas and equipment based on the noise measurements and associated information as part of IH surveillance programs. Industrial Hygienists provide HPD recommendations and employee HCP enrollment recommendations based on the noise exposure assessments. Exposure assessment results, along with the associated recommendations, are submitted to customer commands via a baseline, periodic or special IH survey report. Industrial Hygienists typically conduct ashore and afloat annual audiometric test booth certifications. Upon request, IHs may participate as instructors in Hearing Conservation Technician Certification courses. Additional information pertaining to noise exposure assessments and the role of Industrial Hygienists is provided in Chapter 5 of the NMCPHC, Industrial Hygienist Field Operations Manual¹.

12. Occupational Medicine (OM). OM professionals (to include OM Providers and Occupational Health Nurses) have training and experience with the HCP and can be of assistance with program implementation and guidance. Their scope of responsibilities include: documentation of employee occupational health histories, medical surveillance assessments, medical certifications for select occupations, worksite visits, review and analysis of IH data, identification of appropriate employee work restrictions, and occupational Fitness for Duty evaluations on military and federal civilian workers.

13. Safety Officer. The Commanding Officer has overall responsibility for the HCP. The Safety Officer and Work Area Supervisor manage and track program implementation and compliance. The Safety Officer is responsible for establishing and maintaining the roster of HCP enrolled personnel and semi-annually providing the cognizant medical facility with the total program enrollment number. The Safety Officer is also responsible for tracking and recording PTS hearing injury and OSHA recordable hearing loss through an established electronic mechanism, such as Web-Enabled Safety System (WESS), Enterprise Safety and Management System (ESAMS) or MRRS. The Safety Officer is responsible for exploring engineering and administrative noise abatement controls.

14. Work Area Supervisor. Work Area Supervisors are responsible for tracking HCP enrollment, enrolling and removing personnel from the HCP based on noise exposures and IH survey recommendations, and managing and tracking medical surveillance exams for their assigned personnel. Specific to the HCP, Work Area Supervisors must ensure medical surveillance compliance is met by coordinating appointments with the supporting MTF, using SECNAV 5100/1 (found on NMCPHC website) form for communicating the type of assessments needed from the MTF, and ensuring personnel complete required appointments. Work Area Supervisors are responsible for ensuring effective HPDs are available to personnel and that their employees properly wear HPDs in noise hazardous areas/conditions. Work Area Supervisors will notify the Safety Officer and/or request a noise survey whenever a change in operations may impact noise levels.

III. Noise Measurement and Control

A. Reference (i) Chapter 5 (Noise Surveys) provides guidance on:

- Noise Measurement and Evaluation (IH Surveys)
- Noise Exposure Monitoring Plans
- Identifying and Labeling Hazardous Noise Areas and Equipment
- Audiometric Booth Certification

B. Noise Abatement and Control. Engineering controls constitutes the primary method for preventing occupational hearing loss. Removing or reducing hazardous noise from the source is the most effective method for preventing occupational hearing loss and creating a safe sound environment. Every effort must be made to eliminate or reduce identified noise hazards through the systems engineering and systems safety process. Industrial Hygienists, Occupational Audiologists, command leaders, Facilities Managers and Safety Managers collaborate on appropriate engineering controls and apply processes for eliminating or reducing the noise, where possible.

1. Administrative control of exposure time is required in cases where noise control is not possible and hearing protective devices provide insufficient attenuation to reduce the employee's effective exposure level below 85 dBA Time Weighted Average (TWA). Implementation of administrative controls must be accomplished under strict supervisory control, and in consultation with safety and industrial hygiene or occupational audiology.

2. If hazardous noise exposure cannot be sufficiently eliminated or reduced through engineering and administrative controls, appropriate HPDs should be fitted for each individual exposed.

C. HCP Enrollment. Military and civilian personnel working in hazardous noise areas will be identified by their parent activity and enrolled in the HCP. Subsequently, these employees will undergo hearing protection fitting and issue, annual hearing loss prevention education, and annual audiometric testing. Per reference (f) all active duty and reserve U.S. Marine Corps personnel are enrolled in the HCP. Civilian personnel should not be HCP enrolled if there is documented evidence that they do not meet enrollment criteria, as this introduces potential for unwarranted liability and compensation claims, and adds undue burden onto government and medical systems.

D. HCP Enrollment Criteria.

1. Noise hazard exposure criteria that requires enrollment in the HCP:

a. ≥ 85 dBA TWA continuous and intermittent noise for 1 day or more per year. TWA calculation is based on an 8 hour workday with a 3 dB exchange rate.

b. ≥ 140 dB SPL impulse noise for 1 day or more per year.

2. Exposure assessments should be made to determine hazardous noise areas and operations. Assessments include noise measurements performed per reference (i), which will determine personnel enrollment in the HCP per reference (e). Assessments should be made initially and reassessed whenever operations have changed based on the risk management process of DoDI

6055.05 per reference (c). In addition, noise surveys should be performed when a ship has undergone a major repair availability, had significant work to existing engineering systems, or has new equipment installed per reference (e). Acquisition and new system development should incorporate noise measurements during the test and evaluation stage per reference (d). When insufficient noise data is available to determine risk, personnel may be enrolled in the HCP based on the sampling of Similarly Exposed Groups (SEGs).

3. Per reference (f), all active duty and reserve U.S. Marine Corps personnel, and all active duty and reserve Navy personnel serving with or supporting USMC units are enrolled in the HCP, regardless of noise exposure levels. All civilian personnel occupationally exposed to hazardous noise will be enrolled in the HCP according to the criteria listed under section III.D.1 above.

E. HCP Enrollment Responsibilities/Actions.

1. Medical Department Industrial Hygiene personnel are responsible for identifying noise hazardous areas and equipment within a command during baseline and periodic noise hazard surveys and during select noise exposure monitoring events. Formal IH survey reports are subsequently provided to commands detailing the noise hazard areas and operations.

2. Commands are responsible for identifying the personnel who work in noise hazard areas or operations, enrollment of personnel into the HCP, removing personnel from the HCP when they no longer work in hazardous noise, and semi-annually updating HCP enrollment rosters/databases.

3. Visitors to hazardous noise areas are required to wear hearing protection, but are not required to be enrolled in the HCP, have their hearing tested or be included on a roster of noise exposed personnel.

F. Questions regarding the health effects of unusual noise exposures should be directed to an Occupational Audiologist, Occupational Medicine Physician, or NMCPHC. Such exposures may include, but are not limited to, the following:

- Greater than 16 hours of continuous or intermittent exposure per day
- Intense low frequency noise (i.e., when the difference between the C-weighted and A-weighted values are greater than 15 dB)
- High intensity noise above 140 dBA sound pressure level
- Impulse/impact noise above 165 dBp sound pressure level
- Facility/equipment alteration that significantly impacts noise levels

IV. Hearing Protection

A. Hearing Protection Device (HPD) Use. HPD use is mandatory when personnel are occupationally exposed to noise levels of >85 dBA or >140 dBP. HPDs and earplug carrying cases are provided to and worn by personnel working in potentially hazardous noise in accordance with appendix B references (d) or (e). Areas or equipment where the sound pressure levels are 104 dBA or greater or 165 dB peak or greater shall be labeled and require the use of double hearing protection (earplugs and circumaural muffs). Personnel who are not in compliance with the mandatory and appropriate use of hearing protection in noise-hazardous areas (double protection where required) are subject to administrative or disciplinary action. Per Appendix B references (d) and (e), all personnel exposed to weapons fire regardless of a simulated or live training event must wear HPDs. Commanders will determine the use of HPDs in combat based on mission requirements, the impact on communication, and situational awareness per appendix B references (d) and (e).

B. Hearing Protection Product Selection. Commercial HPD product Noise Reduction Rating (NRR) values are not representative of real world attenuation. Reference (i) describes calculation methods for determining more authentic product noise reduction capability to help facilitate appropriate HPD selection. HPD attenuation measurements conducted by government labs (and government approved labs) reflect accurate noise reduction values and can be relied on when selecting HPD devices. Noise hazard commands are advised to consult with MTF Occupational Audiologists or Industrial Hygienists on product selection to assure that selected devices are appropriate and effective for the noise environments. Field attenuation estimation systems, commonly referred to as a fit-test system are recommended as a best practice. Field attenuation estimation using the fit-test system should be performed by a trained safety professional or industrial hygienist per reference (d), or by an occupational audiologist.

1. Considerations for hearing protection are found on the NMCPHC website.
2. Information and guidance on NRR, ordering information, custom molded hearing protection and other HPD products is available on the NMCPHC website.
3. The user should be permitted some freedom of choice in the selection of hearing protective device type, unless the selected protector is medically contraindicated or inappropriate for a particular noise hazardous area or operation. Pre-formed and hand-formed earplugs, as well as other HPD options should be available at all times for personnel in the Hearing Conservation Program, and hand-formed disposable earplugs must be available for visitors to noise-hazardous areas.
4. OA consultation is recommended in instances of HCP enrollee significant hearing loss, high intensity noise exposures (TWA's in excess of 104 dBA or 165 dBP impulse/impact), Fitness for Duty (FFD) concerns, or communication-critical situations.

C. Specialized Hearing Protection Products and Communication Devices.

1. Use of custom hearing protection devices is authorized. HCP enrolled personnel have the option to use custom hearing protection to effectively reduce excessive noise exposure and maintain

and/or enhance communication ability. Only audiologists, otolaryngologists, or trained aviation physiologists/technicians may take impressions of the ear necessary to make the custom earplugs. Consult local audiologist for custom ear impression guidance and protocols.

2. Procurement of Tactical Communication and Protection Systems (TCAPS), or other advanced electronic devices that enhance or improve communication and reduce noise exposure should be coordinated with the MTF Occupational Audiologist, who can provide product selection advice, device fitting, training support, and attenuation assessments.

D. HPD Fitting Procedures.

1. While the command or activity is required to purchase, provide and maintain hearing protection for its employees, non-disposable and specialized hearing protectors require accurate sizing and fitting by medically trained personnel. Before any such device is placed in an ear, a well-lighted visual inspection is necessary to determine whether any condition is present that would make insertion inadvisable, such as, observable pathology or excessive earwax. Each ear canal will be inspected and sized separately.

2. HPD fit is a critical factor in preventing Noise-Induced Hearing Loss. The quality of the fit significantly influences the amount of protection provided by the device. Provision of personal hearing protection of any sort requires basic instruction as to use and care. All personnel required to wear hearing protection will receive adequate and effective training in the proper use and care of hearing protective devices. Medically trained personnel must examine the fit and condition of preformed, specialized and custom earplugs at initial fitting and at least annually, preferably in conjunction with the annual hearing test.

3. Recreational listening devices must not be used in place of or in conjunction with approved hearing protectors. Hearing aids or amplification devices must not be used in noise hazard areas, unless specifically approved by an audiologist. Hearing aids must not be used in place of or in conjunction with an approved hearing protector unless approved for that purpose by an audiologist. Any decisions to waive or alter the use of HPDs must be made and documented by an occupational audiologist.

E. HPD Purchase and Procurement. As with all personal protective equipment, purchase and provision of hearing protection and communication devices is a responsibility of noise hazard commands. Hearing protection and earplug carrying cases are considered safety supply items, not medical items. MTF's must also maintain a supply of a variety of HPDs and carrying cases for the purposes of educating command safety representatives, employee supervisors, and employees on available and appropriate HPD options and current technology.

V. Audiometric Monitoring

A. **Audiometric Testing and Diagnostic Audiology Services.** The Navy Medical Department is responsible for the provision of all required HCP evaluations to include diagnostic audiology evaluations and Medical Qualification/Auditory Fitness for Duty (AFFD) evaluations. All hearing evaluation results must be captured and maintained in the Electronic Health Record. On joint service and sister service bases, medical surveillance and diagnostic hearing evaluations may be obtained through certified technicians and audiologists from supporting DoD MTFs via MOA. Navy and DoD occupational audiologists are the subject matter experts on federal regulations and military guidance regarding occupational hearing standards and requirements for AFFD determination.

B. **Audiometric Equipment and Software Requirements.** Audiology equipment must be replaced once it has exceeded its life cycle expectancy.

1. For HCP Medical Surveillance Audiometric Testing:
 - a. Certified audiometric test chamber (audio booth)
 - b. Benson Medical CCA-200 mini microprocessor audiometer for each station with accompanying headphones and patient response button (provided by NMCPHC)
 - c. Benson Medical BAS-200 Acoustic Simulator for each station (provided by NMCPHC)
 - d. Current version of DOEHRS-HC software
 - e. Otoscope
 - f. Middle ear screener (optional/recommended)
 - g. Otoacoustic Emission Screening equipment (optional/recommended)
2. For diagnostic audiology assessments:
 - a. Certified audiometric chamber that meets diagnostic test attenuation requirements (recommend double-walled booth)
 - b. Enterprise Clinical Audiology Application (ECAA)-compatible diagnostic audiometer with accompanying headphones, bone oscillator and patient response button
 - c. ECAA-compatible middle ear analyzer
 - d. Otoacoustic Emission equipment
 - e. Diagnostic otoscope
 - f. Compact disc player/device for administering recorded speech tests

- g. Hearing Protection Fit-Check equipment
- h. Custom earmold impression equipment and supplies
- i. Current version of ECAA software
- j. Virtual Audiology Equipment (optional/recommended for supporting remote clinics)

3. Audiology Booth Installation and Certification Requirements.

a. Audiometric test chambers (audio booths) must be certified annually with a Type 1 Octave Band Analyzer (OBA) meter with a 1 inch microphone, meeting the requirements of the most recent version of ANSI standards. Recertification is also required when a chamber, including Mobile Occupational Hearing Conservation Audiometric Truck (MOHCAT), is relocated, and whenever there is a significant change in ambient noise levels that could affect hearing testing.

b. Certification is performed by an industrial hygienist, audiologist, or others meeting guidelines established by NMCPHC. An approved booth certification form with instructions for conducting a booth certification is provided on the NMCPHC website. Current booth certifications must be posted in the area where audiometric testing is performed.

c. New booth purchases or relocation of existing booths must be coordinated through the local Audiologist. The regional OA must be consulted to ensure the appropriate size and type of booth is selected. Adequate space planning and preparation is required when determining facility location for audiometric testing services. Sound-treated audiometric chambers occupy a significantly large footprint. The designated room must also accommodate audiometric medical equipment, office furniture, and patient counseling area. Sound attenuation is critical for obtaining valid audiometric results, therefore, careful pre-planning is required prior to booth purchase and installation. Audiometric testing locations should be designated in areas away from known noise sources, such as conference rooms, break rooms, auditoriums, ambulance bays and other significant outdoor noise sources, intercom systems, ventilation systems, and heavy patient traffic areas.

4. Equipment Use, Maintenance and Calibration Requirements.

a. Medical Surveillance Audiometric Equipment. All MTF hearing conservation audiometric testing sites must use the DoD designated microprocessor audiometer with the most recent version of the DOEHRS-HC software for all hearing conservation testing. The most current version of DOEHRS-HC installation software is available at the DOEHRS-DR website for those with active accounts, or may be obtained by contacting the Military Health System (MHS) helpdesk at 1-800-600-9332 or e-mail: help@mhs-helpdesk.com. Software maintenance updates must also be downloaded on a monthly basis. These updates are located at the DOEHRS-HC DR website. After logging onto the website, HC updates are found under the DOEHRS-HC menu.

b. An exception to using microprocessor-based DOEHRS-HC audiometry includes patients who require manual audiometry (tinnitus patients, hard-to-test patients, and referrals to the audiologist). In these instances, the manual audiometer test results will be manually entered into the DOEHRS-HC software and uploaded to the DOEHRS-HC DR to ensure the central data repository remains current on all hearing conservation test results. Each audiologist will have the DOEHRS-

HC software loaded onto their desktop to allow entering of re-established baseline or periodic audiograms.

c. Audiometric Equipment Calibration.

(1) Calibration of clinical and diagnostic audiology equipment is the responsibility of the MTF and is conducted onsite by an MTF contracted vendor. Calibration for clinical and diagnostic audiology equipment is required to be completed by or before the calibration due date indicated on the equipment. Daily calibration checks are not required for diagnostic audiology equipment.

(2) Medical surveillance microprocessor audiometers will be calibrated by physical methods at least annually for compliance with the most recent version of ANSI standards. Calibration and repairs affecting calibration are provided by NMCPHC at no cost for all DOEHRS-HC microprocessor audiometers used in the HCP. The calibration of clinical or diagnostic audiometers used in otolaryngology or audiology clinics are not part of the NMCPHC service.

(3) Preventive and minor maintenance of medical surveillance audiometers which does not affect calibration is accomplished by the local MTF biomedical equipment maintenance and repair staff. A local pool of audiometers for loan may be maintained for branch clinics and fleet activities, where necessary, to be used for exchanging defective units which cannot be immediately repaired locally. The local HCP Manager will control this pool. Guidance concerning the pool or for assistance with audiometer repair, calibration, or loan may be obtained by contacting the audiometer calibration and repair staff at the NMCPHC.

(4) Problems with DOEHRS-HC software must be reported to the MHS Help Desk by email to servicecenter@dha.mil or by phone (CONUS: 1-800-600-9332 or OCONUS: 1-866-637-8725). These emails cannot be encrypted and must not include Protected Health Information/Personal Identifying Information (PHI/PII). Emails should include a brief, but detailed description of the problem including screen captures (if possible), error messages, the software version being used, and user and facility contact information.

(5) A functional listening check is performed each day the medical surveillance microprocessor is used. A biological calibration check is performed each day the equipment is used. An acoustic simulator or normal hearing listener with pre-recorded baseline thresholds will be used to complete the daily biologic calibration check. Biological calibration results are electronically recorded on a DD Form 2217. Daily biologic calibrations must be maintained and available for review for five years. If the daily calibration test results differ from the calibration baseline audiogram by more than +/- 5dB at 500 - 4000 Hz, or more than +/- 10 dB at 6000 Hz, an alternate normal "listener" with a reference audiogram on file must be tested and results compared against recorded reference hearing values for that listener. Listeners are not interchangeable once calibration baselines are established immediately after annual electro-acoustic calibration. An audiometer must be removed from service and repaired/recalibrated if it fails the calibration check.

C. Audiometric Test Types

1. There are 4 types of audiograms: reference (baseline) audiogram, medical surveillance monitoring audiogram, non-HCP audiogram, and diagnostic audiogram.

2. All personnel enrolled in the HCP are required to obtain reference (baseline) and annual medical surveillance hearing tests, which consist of pure tone, air conduction hearing threshold measurements at test frequencies of 500, 1000, 2000, 3000, 4000, and 6000 Hz. Each ear is tested separately and unaided. All audiometric assessments must be permanently retained in individual health records. All required data fields can be found on a copy of the DOERHS-HC Demographic Data Intake Form (sample provided on NMCPHC website).

a. Reference Audiograms are recorded on DD Form 2215. The reference hearing test will not be administered unless the individual has been free from exposure to occupational and non-occupational noise above 80 dBA for at least 14 hours. This requirement cannot be met by wearing hearing protection devices. Five types of reference audiograms are used in the HCP:

- Type 0 (Manually entered) Reference is manually entered into DOEHRHS-HC when the reference audiogram is not electronically available. It is entered to conduct comparison with a periodic audiogram (DD Form 2216). This data will only be transcribed from a DD Form 2215 from the employee's medical record.
- Type 1 (Baseline) Reference is administered prior to (within 30 days) employees beginning initial work assignment in occupational noise exposure. All active duty military personnel must receive a Type 1 reference audiogram at their first duty station. Civilians who are enrolled in the HCP must receive a Type 1 reference audiogram upon HCP enrollment. Diagnostic audiology evaluations are required when Type 1 reference audiogram results are abnormal.
- Type 2 (Baseline) Reference is administered after exposure to hazardous noise, such as when the original reference audiogram was lost, or was never established. Diagnostic audiology evaluations are required when Type 2 reference audiogram results are abnormal.
- Type 3 (Re-established) Reference is administered as the result of a follow-up program and is used to re-establish the baseline due to a (negative or positive) PTS. Only an Audiologist or HCPM can authorize the re-establishment of a baseline after a positive (hearing gets worse) PTS. A certified HCT can re-establish reference audiograms when a negative (DD2216 results are significantly better than the current reference) STS has been verified and previous audiometric history has been reviewed.
- Type 4 Reference is administered when there is a change in service component. A type 4 Reference is used for patients who are former active duty military and are now a civil service employee or when a former civil service employee enters active duty service or there is a break in service. In the case of civilians transferring between DoD service and components (i.e., a worker employed by the Army transfers to Navy employment) the baseline remains the same. Diagnostic audiology evaluations are required when Type 4 reference audiogram results are abnormal.

b. Medical Surveillance Monitoring Audiograms are recorded on DD Form 2216. Monitoring hearing tests are used to detect incremental changes in hearing and identify potential problems before the hearing loss begins to interfere with verbal communications, job performance, or safety. Comparison is made between the most current monitoring audiogram with the most current reference audiogram to determine whether significant changes in hearing have occurred. A follow-up monitoring audiogram is required if results indicate a significant change in hearing in order to validate the results. All follow-up audiograms must occur within 30 days for civilian personnel or 90 days for military personnel to be considered valid. If follow-up testing is not

obtained during this time frame, the monitoring sequence starts over. A referral to occupational audiology is required when a significant decrease in hearing is detected on the final follow-up test.

- The monitoring audiogram may be conducted at any time during the work shift. Follow-up tests require the patient to be free from occupational and non-occupational noise (less than 80 dBA) for 14 hours prior to testing. This requirement cannot be met by wearing HPDs.
- Termination Audiograms are also recorded on DD Form 2216. Military personnel will receive a Termination Audiogram only upon leaving military service within 180 days prior to termination of military service, regardless of noise exposure history. Civilian personnel who have been routinely exposed to hazardous noise and were enrolled in the HCP will receive a hearing test preceding termination of employment. Additionally, all civilian personnel who no longer require inclusion in the HCP due to removal from hazardous noise duties will have a Termination Audiogram to document auditory status at the time of reassignment.
- Pre/Post Deployment Audiograms are not required to be administered for DON personnel before and after deployment unless specifically indicated as part of a pre/post deployment physical. Pre/post deployment audiograms are recorded on a DD2216.

c. Non-HCP Audiograms are used to record audiometric test results for non-hearing conservation purposes or for personnel not enrolled in the HCP.

d. Diagnostic Audiology Evaluations are administered by MTF privileged Audiologists for referred patients.

D. Coordination of Medical Surveillance Audiometric Testing

1. Employee supervisors are responsible for ensuring that HCP enrolled personnel report to the supporting MTF for all annual and required follow-up hearing tests and diagnostic evaluations.

2. DON Supervisor's Medical Surveillance and Certification Exam Referral Form (SECNAV 5100/1) is used to communicate and coordinate HCP care and services between the MTF and supported commands. Employee supervisors are responsible for initiating and submitting this form to the supporting MTF. Close collaboration between the MTF Occupational Audiologist or HCPM and supported noise hazard command Safety Officers is crucial to the success of the program. Commands with personnel in the HCP must provide the MTF HCPM or Occupational Audiologist with Safety Officer contact information, denominator or enrollment data, Unit Identification Code (UIC) for Navy and UIC/MCC (RUC) for Marine Corps, and program specifics to ensure effective program management and success.

3. HCP enrolled personnel are required to bring their personal hearing protectors to the audiometric testing location in order to verify fit and effectiveness.

E. Medical Surveillance Audiometric Testing Outcomes

1. Significant Threshold Shifts (STS). An STS is defined as a change in hearing threshold relative to the current reference audiogram of an average of 10 dB or more at 2000, 3000, and 4000 Hz, in either ear. The STS may be either positive (poorer hearing) or negative (better hearing). A

change of 15 dB or greater in either ear at any test frequency from 1000 to 4000 Hz is considered an early warning of potential future STS, requiring verbal counseling and assurance of appropriate hearing protection for the individual. Per reference (c), the DoD does not allow an age correction factor to be applied when determining STS.

a. Positive STS. If the STS is positive, that is, the hearing levels of the monitoring audiogram are significantly poorer than the reference audiogram, a 14-hour noise-free (less than 80 dBA) follow-up test must be administered on a subsequent day to determine if the decrease in hearing is permanent.

b. If the results of this first follow-up test do not indicate an STS, no additional follow-up testing is required and the individual is counseled and returned to annual monitoring.

c. If positive STS persists on the first follow-up and if frequencies below 3000 Hz are involved, then it is efficient and necessary to rule out an obvious conductive (mechanical) or medically significant basis for the shift before proceeding to the second follow-up. The preferred method to rule out conductive hearing loss is through otoscopy and technician-administered screening tympanometry. Normal otoscopy, in conjunction with a normal tympanogram, is a quick and accurate indication that the threshold shift was likely not the result of an acute medical condition. A health record entry is made to document the tympanometry and otoscopic findings. If the tympanogram is abnormal, then evaluation by a health care provider (medical officer, nurse practitioner, physician's assistant, or independent duty corpsman) must be obtained and documented and the individual followed until cleared medically. If tympanometry is not available, the test sequence is continued. Further guidance concerning local procedures are provided by the audiologist or physician responsible for case management.

d. Perform a second follow-up audiogram if otoscopy, tympanometry, and/or medical evaluations are within normal limits. This follow-up test may be administered on the same day as the first follow-up. If the STS persists on the second follow-up, the patient is referred to the MTF Occupational Audiologist or designated DoD provider for the review of results, determination of PTS, and disposition.

e. Negative STS. If the STS is negative, that is, the hearing levels of the monitoring audiogram are significantly better than the reference audiogram, a retest will be conducted on the same day. Based upon the results of this retest, the following action will be taken:

(1) If the results of the follow-up audiogram are not significantly different from the reference audiogram (meaning no STS is present), no further testing is required. The individual is counseled on the test results and returns in 12 months for the next annual test (if enrolled in the HCP).

(2) If the results of the retest remain significantly improved from the reference audiogram, establish the retest as the new re-established Reference (Type 3) audiogram. No Audiology consult is needed.

2. Hearing Injury / Positive PTS and OSHA Reportable Hearing Loss Notifications.

a. **PTS.** A positive PTS is defined as a 10dB average decrease in hearing at 2000, 3000, and 4000 Hz in either ear when compared to the Baseline/Reference audiogram that is confirmed by an Audiologist. A positive PTS is a potentially recordable illness or injury and is reported to the command safety office for entry on OPNAV 5102/7 (Log of Navy Injuries and Occupational Illnesses), or equivalent. Upon confirmation of a PTS, the reference audiogram will be re-established as a Type 3 audiogram on a DD Form 2215.

b. **OSHA Recordable Hearing Loss.** All test results for civilian HCP enrollees are reviewed for evidence of an OSHA-Recordable STS. For an STS to be considered OSHA-Recordable, three criteria must be met: 1) a confirmed positive PTS, 2) the average hearing threshold levels at 2000, 3000, and 4000 Hz is 25dB HL or greater, and 3) the PTS is determined to be work related. OSHA Recordable STS is not applicable to active duty personnel.

c. **PTS/OSHA Recordable Hearing Loss Notification.** All PTS results must be reviewed by an Occupational Audiologist or HCPM for validation. The HCP Manager is responsible for notifying the HCP enrollee, his/her supervisor, and Safety Manager in writing within 21 days of determination of a positive, PTS or OSHA recordable hearing loss. The HCP enrollee's signature on the DD2216 serves as an appropriate formal written notice of a PTS to the individual. A sample notification letter to the HCP enrollee's command is provided on the NMCPHC website.

d. **Hearing Injury/PTS/OSHA Recordable Hearing Loss Tracking.** The employee's command is required to document and track employee STS and PTS through MRRS, ESAMS, or other established system. For civilian HCP enrollees with a PTS that are also categorized as an OSHA recordable loss, the command is required to document the injury on the OSHA 300 log. For active duty HCP enrollees with a PTS it may be required to enter the injury into WESS. An OSHA or WESS recordable hearing loss is recorded as a Class D mishap. A progressive hearing loss is typically recorded as an illness; an acoustic trauma from an instantaneous event such as weapon fire or impulse/impact noise is recorded as an injury.

e. **Hearing Injury/STS/PTS Mishap Investigation.** Monitoring audiograms do not prevent hearing loss, but serve as a gauge of HCP success. Once a hearing injury has occurred, it is imperative that the command take action to address and prevent future injury. Intervention effort should be made at the earliest indication of decreased hearing. Early Warning Shifts and STS incidence are the initial precursors of impending hearing injury, and are the most opportune time to intervene. Upon notification to the Commanding Officer/Safety Officer of a PTS occurrence, the command Safety Officer shall provide follow-up action to prevent further hearing loss. Recommended actions may include the evaluation of the worksite, review of potential noise hazard engineering and/or administrative controls, assessment of the adequacy and availability of appropriate hearing protectors, and review of the effectiveness of hearing loss prevention training.

F. Audiology Referral Criteria

1. Abnormal results on initial baseline (DD2215) audiograms as indicated in block 15D of form.
2. Positive STS on final follow-up audiogram (DD2216).

3. Asymmetrical hearing loss. Individuals whose hearing thresholds at any test frequency differ by 40 dB or more between ears cannot be tested by a technician and must be referred to an audiologist, as masking is required. In addition, any patient with an asymmetry of 20 dB or more at two consecutive frequencies will be referred to an Audiologist.

4. Abnormal pre-placement audiograms. Civilian employee applicants undergoing pre-placement evaluations are referred to the supporting MTF Occupational Audiologist for review of any pre-existing hearing loss for the purposes of assisting medical qualification determination.

5. Significant Hearing Loss. A significant hearing loss exists when the average Hearing Thresholds in either ear at 500, 1000 and 2000 exceeds 30 dB and/or individual thresholds in either ear exceed 35 dB at 3000 Hz and 45 dB at 4000 Hz per DoD Instruction 6130.3, Medical Standards for Appointment, Enlistment, or Induction into the Military Services^j.

6. Fitness for Duty/270 Rule. Any individual who has hearing loss in which the sum of thresholds at the frequencies of 3000, 4000, and 6000 Hz in both ears equals or exceeds a sum total of 270 dB will not be assigned to duties involving exposure to hazardous noise without a medical qualifying evaluation and clearance.

7. 3 PTS Rule. Individuals monitored under the HCP who have their reference audiogram re-established due to deteriorated hearing on three separate occasions must obtain clearance from an audiologist, otolaryngologist, or occupational medicine physician before returning to duties involving hazardous noise. These individuals are considered to be at high risk for developing further hearing loss and require comprehensive diagnostic audiology evaluations and medical qualification determination.

8. Auditory Complaints. Personnel enrolled in the HCP reporting significant occupational hearing loss, bothersome tinnitus, or difficulty understanding verbal communication should be referred to the audiologist for evaluation. Employees who experience any occupational illness or injury should be instructed to report these problems to their immediate supervisor.

G. Medical/Otolaryngology Referral Criteria

1. Patients with abnormal screening otoscopy and tympanometry results.
2. Individuals not responding to treatment of ear canal occlusion, persistent ear pain, or ear canal drainage.
3. Significant aural pathology, dizziness, severe and persistent or unilateral tinnitus, or sudden onset of hearing loss warrants immediate otolaryngology consultation.
4. Upon completion of assessment/treatment, periodic monitoring hearing testing can resume and a diagnostic Audiology evaluation may be warranted to determine if a PTS has occurred.

H. Occupational Audiology Evaluation

1. Comprehensive Occupational Audiology Evaluations involve a detailed diagnostic audiological assessment and are allotted for a 60 minute appointment slot. ECAA software will be

used to electronically capture diagnostic audiology assessment results, which will be transferred into the Electronic Health Record. Patients referred for a comprehensive Occupational Audiology evaluation will undergo:

a. Review of complete patient audiological and relevant medical history, to include: occupation and description of work, noise exposure (past and current), number of previous threshold shifts, hearing protection required/used, workplace communication demands and potential consequences of miscommunication, need for situational awareness, localization and other related communication skills.

b. Comprehensive diagnostic evaluation of both ears to include: pure tone air conduction testing at 250-8000 Hz, bone conduction testing at 500-4000 Hz, Speech Reception Thresholds (SRTs), Word Recognition testing in quiet using recorded speech, tympanometry, ipsilateral and contralateral acoustic reflex testing. Additional optional tests, as applicable include: otoacoustic emissions, reflex decay, and Phonetically Balanced (PB) Rollover. As indicated, further diagnostic testing or Magnetic Resonance Imaging (MRI) may be warranted.

c. Speech-in-Noise testing is conducted as part of the comprehensive assessment for Medical Qualification/AFFD evaluations. Speech-in-Noise test options include: Speech Recognition in Noise Test (SPRINT), QuickSIN, Hearing in Noise Test (HINT), and Words-in-Noise (WIN). See the NMCPHC website for SPRINT scoring rubric.

2. Federal hearing standards for specified occupations will guide AFFD/Medical Qualification determination cases. The NMCPHC website provides a chart that summarizes applicable federal and DoD Hearing Standards. The 270 Rule will guide AFFD/Medical Qualification determinations in the absence of federal hearing standards or other higher guidance.

I. Medical Qualification/AFFD Determination

1. Medical personnel make recommendations on HCP enrollee ability to perform essential job functions. The fitness for duty decision is a collaborative effort between medical and key personnel from the employee's command (i.e., employee supervisor, Safety representative, Human Resources). The role of medical is limited to determining whether the individual meets physical standards/requirements of the position and can, from a medical standpoint, perform the job capably and safely. Waivers and employment-related decisions are fundamentally managerial, not medical.

2. It is recommended that an interdisciplinary working group is established to make recommendations regarding the medical qualification/fitness for duty for individuals on a case-by-case basis.

a. The interdisciplinary working group should be comprised of a Navy or DoD OA and other occupational health professionals from the Occupational Medicine, Industrial Hygiene, Preventive Medicine, and Health Promotion Departments.

b. The individual's Supervisor and Safety Manager should be consulted to determine the essential job tasks required of the individual, the capabilities of the individual to perform the essential tasks, and a safety analysis that documents the individual's ability to perform essential

tasks without personal risk or risk to others. See the NMCPHC website for a sample Job Capability and Safety Analysis Worksheet.

c. An on-site assessment of the employee's worksite may be warranted to evaluate job requirements, communication demands, noise exposure, availability/use of protective equipment, and potential for reasonable workplace accommodations. A functional onsite assessment of an employee's ability to perform the requirements of their position while operating in the noise environment can assist in guiding the AFD determination.

d. Before the final medical qualification/fitness for duty determination is made Human Resources and applicable legal representative(s) should be consulted to review pertinent issues specific to the case and provide guidance on the appropriate course of action.

3. Active Duty Patients. Service member's chain of command and Safety Officer/Manager are notified when an active duty service member is not medically qualified to work in noise. Employee placement in an alternate work environment without hazardous noise or potential change to a non-hazardous noise occupation [Military Occupational Specialty (MOS)], Service Duty Occupational Code (SDOC)] is recommended to the command. A medical board may be recommended.

4. Civil Service Patients. Civil service employee's chain of command, Safety Officer/Manager, and Human Resource Office (HRO) are notified when the employee is not medically qualified to work in noise. Employee placement in an alternate work environment without hazardous noise may be recommended to the command.

5. Possible determinations include: Medically qualified, Not Medically Qualified or Medically Qualified with Limitations. Final determination decisions will be forwarded to the appropriate authorities for action:

a. Active Duty patients. Notifications of those deemed Medically Qualified will be forwarded to the service member's chain of command and Safety Officer/Manager. Findings of Not Medically Qualified will be referred to an appropriate physician for consideration regarding a Medical Evaluation Board (MEB).

b. Civil Service patients. Medical qualification recommendations will be forwarded to the employee's chain of command.

J. Provider Credentials

1. Audiologists supporting the HCP must be credentialed and privileged through the MTF and must be certified as a Course Director by CAOHC. All HCP audiometric testing will be supervised by the cognizant MTF's Occupational Audiologist or HCP Manager.

2. HCTs or nurses providing medical surveillance audiometric testing must be certified in occupational hearing conservation. Successful completion of a Hearing Conservation Certification Course authorized/approved by the NMCPHC is required for certification. This training is provided by military and civil service audiologists who are CAOHC certified Course Directors. Navy HCP course locations, dates and contact information are available on the NMCPHC website.

a. Equivalent training sponsored by other military services may be utilized with prior permission/coordination from NMCPHC.

b. HCTs obtaining initial certifications should observe audiometric testing in an HCP clinic for at least one day prior to the HCT Certification Course. After completing the HCT Certification Course the HCT should be supervised the first 3-5 days of initial hands-on experience and before conducting hearing testing independently. Technicians who have been inactive for more than six months should be supervised to ensure competency prior to conducting hearing testing independently. Those providing the supervision should ensure HCTs possess the knowledge and skills associated with DOEHRS-HC procedures and data accuracy, HCP procedures and regulatory requirements, and electronic medical record applications.

c. Recertification training is required every five years. Certification extensions may be granted on a case-by-case basis from NMCPHC.

d. An annual on-site HCT competency assessment (sample on the NMCPHC website) must be conducted on all active certified HCTs by an Occupational Audiologist, HCP Manager or Lead Technician. Competency assessments for Lead Technicians will be conducted by an OA. Active Technicians are defined as those who have used the DOEHRS-HC system within 1 year. HCTs will be evaluated on test instructions, administration, education, and fitting of hearing protective devices. This evaluation will be documented at least annually to maintain certification. Documentation of successful competency evaluations must be maintained in technician training files and tracked by the HCPM.

e. At the discretion of the MTF HCPM, DOEHRS-HC accounts may be locked or archived for Technicians who have not successfully completed the annual Technician Competency Evaluation, or have demonstrated lack of skills/competency, or are non-compliant with requirements.

f. Annual in-service refresher training is recommended during on-site visits.

g. Quarterly group meetings with all HCP staff are recommended to provide targeted training on issues/trends identified during Technician Competency Evaluations, improve HCP implementation/management, and facilitate mentorship and open communications among OA providers and Technician staff.

K. Provider Workload Capture. HCP patient care services provided by audiologists and certified technicians must be captured in the Electronic Health Record and coded as a special program service in an F-MEPRS clinic (FBN*). Accuracy of workload capture will be monitored by the HCPM.

L. Medical Diagnosis and Procedure Coding. Occupational Audiologists and HCP Technicians will adhere to the Military Health System (MHS) and Hearing Center of Excellence (HCE) guidelines for medical coding.

VI. Employee Training

A. Training Requirements

1. Initial hearing conservation training must be provided prior to assignment to duties in hazardous noise, and annually thereafter. Civilians enrolled in the HCP should obtain initial training from the command during an orientation module. Uniformed personnel should obtain initial education during basic training.

2. Provision and documentation of initial and annual training is the responsibility of the employee's command. Commands are encouraged to seek MTF Occupational Audiology subject matter experts to assist with providing effective, meaningful training.

B. Training Content

1. Initial and annual training must be sufficiently comprehensive to ensure familiarity with the following training elements: (1) the physical and psychological effects of noise environments and hearing loss, (2) recognition of posted noise-hazardous spaces and environment, (3) audiometric testing and its purpose, (4) the proper selection, fitting, use and care of HPDs, (5) roles/responsibilities in the prevention of hearing loss, (6) awareness training as to the hazards of non-occupational noise exposure during recreational activities, (7) the impact of hearing loss on job performance and FFD, and (8) disciplinary actions for HCP non-compliance.

2. Other than successful noise abatement operations, nothing is more important to the successful prevention of NIHL than motivating personnel to wear hearing protectors appropriately and ensuring compliance with personal protective and medical surveillance requirements. Personnel must understand why they need to protect themselves, when and how to do so, resources available for hearing protection and communication, and the consequences of carelessness or deliberate non-compliance.

3. Successful education at all levels of command is vital. As HCP subject matter experts, Navy Medicine Occupational Audiologists assist noise hazard commands in providing annual hearing conservation training, and in educating leadership on HCP compliance and the appropriate tools and technology for hearing loss prevention.

4. Occurrences of technician-administered refresher training is documented in the medical record when provided in conjunction with the annual audiogram.

C. Training Resources

1. Sources of training support are the Occupational Audiology /Hearing Conservation Program offices at Navy MTFs and Navy Environmental and Preventive Medicine Units. Upon request, these subject matter experts can provide assistance with HCP training, as schedules permit.

2. Sources for hearing conservation training materials and information may be found on the NMCPHC website. A Hearing Education and Readiness (HEAR) course (DHA-US097) is recommended and available on the Joint Knowledge Online (JKO) website. The course length is

thirty minutes with a course certificate provided upon completion. The target audience for this course includes military and civilian employees, Supervisors, and Safety personnel.

VII. Record Keeping

A. Hearing Conservation Data

1. All hearing conservation data will be recorded using the following forms:

- a. DD Form 2215, Reference Audiogram
- b. DD Form 2216, Hearing Conservation Data
- c. DD Form 2217, Audiometer Biological Calibration Check

2. Employee Health Record. Hard copy print-out of DD Forms 2215's and 2216's are placed in Part 1 of the individual's health record. The health record of each individual identified by command for inclusion in the HCP will contain the following: Original baseline/reference audiogram (DD Form 2215), Re-established reference audiogram(s), if different from original baseline audiogram (DD Form 2215), and all monitoring audiograms (DD Form 2216). Diagnostic OA evaluation results will be captured in ECAA software with an electronic copy saved into the electronic health record and hard copy placed in the individual's health record.

3. DOEHRS-HC. Audiometric testing sites that are connected to local-area network (LAN) lines will export (upload) to the DOEHRS DR each day that the system is used to administer audiometric testing. Testing sites that are not connected to LAN lines will export DOEHRS data at least weekly. Information concerning exporting data is available at NMCPHC, DOEHRS-HC and DR websites.

4. An electronic backup of the local audiometric database must be retained for maintaining data integrity. Electronic backups must be conducted at least weekly, and preferably daily.

B. Individual Noise Exposure

1. Individual dosimetry results must be recorded in the employee medical record. Documentation of exposure may be based on actual exposure or similar exposure group (SEG) data associated with the individual's job code [Navy Enlisted Classification (NEC), MOS, SDOC] and may not be readily available in the medical file. Avoid selection of a specific noise exposure choice on the DD Forms 2215/2216 without documentation of the actual exposure.

- a. NMCPHC Form 5100/17, Industrial Hygiene Noise Survey Form
- b. NMCPHC Form 5100/18, Industrial Hygiene Noise Dosimetry Form

C. Medical Department Documentation

1. The following records are maintained:

a. Current number (denominator) of personnel enrolled on the HCP, as provided by the supported commands. This number will be updated at least every 6 months.

b. Results of noise surveys. (Survey data for individual commands may not be available.) Noise survey data and files should be available to OA and Occupational Medicine Department personnel.

c. Results of daily Audiometer Biological Calibration Checks (DD Form 2217).

d. Results of annual audiometric test booth certifications.

e. Records of competency evaluations and in-service training of HCTs.

D. Retention of Records

1. Results of hearing tests performed for hearing conservation, as well as exposure documentation, will be a permanent part of an individual's health record.

2. Noise exposure data, recorded on a DD Form 2214, NMCPHC Form 5100/17, or NMCPHC Form 5100/18, will be kept for a minimum of 40 years.

3. All other hearing and noise-related documentation will be retained for five years.

E. HCP Workload Reporting

1. All Occupational Audiology and HCP patient care workload will be recorded in the Electronic Health Record under the FBN MEPRS code per current MEPRS guidance. FBN is used to document hearing conservation services to active duty service members and DoD civilians enrolled in the HCP. FBN is also used to document diagnostic audiology services, including hearing loss evaluations for worker's compensation, hearing readiness/fitness for duty, significant threshold shift, acoustic trauma, and difficult to test patients (non-organic behavior or response).

2. All MTF personnel performing Occupational Audiology or HCP activities will record this work time under FBN in the DMHRSi application.

VIII. Program Evaluation and Management

A. MTF tracking of the following metrics by fiscal year is required. Metrics will be reported through: annual HCP Self-Assessments and Metrics submissions to the cognizant Navy Medicine Region and annual HCP status briefings with MTF leadership. This data will also be reviewed during SOHME/MEDIG evaluations.

1. Noise hazard command HCP enrollment, estimated compliance and hearing injury rates
2. Hearing loss prevention outreach initiatives (minimum of 12 per full-time OA per FY)
3. Technician Competency Evaluation rate (benchmark = 95%)
4. Clinic Assist Visits (benchmark = 100%)
5. Submission of annual HCP performance reports to noise hazard commands in the MTF AOR (benchmark = 100%)
6. Submission of hearing injury reports (within 21 days) to noise hazard commands in the MTF AOR (benchmark = 100%)

B. HCP Metrics. Key to a successful HCP is to ensure that all personnel who are exposed to hazardous noise in the workplace are enrolled in the command's HCP, receive annual audiometric evaluations, and active measures are taken to prevent occupational hearing loss (i.e., noise control, HPD use). While Navy Medicine is responsible for management of the medical components of the program, ultimately it is each command's responsibility to ensure its personnel receive proper medical surveillance to include annual audiograms. Navy Medicine does not have control over the number of individuals reporting for annual required testing.

The DOEHRS DR offers both standard and ad hoc queries against all centrally maintained data. Guidance in utilizing the DR can be provided by NMCPHC. Incomplete reporting, either through the HCP enrollee roster or DOEHRS data entry and uploads, and/or non-compliance with annual testing requirements negatively impact the data integrity and usefulness of HCP trend analysis through the centralized DOEHRS-HC database and the DOEHRS DR.

1. Audiogram Compliance and Hearing Injury Rates are important data points for measuring HCP success.

Command Safety Officers and Work Area Supervisors manage and track HCP implementation and compliance. The Safety Officer and Work Area Supervisor are responsible for establishing and maintaining the roster of HCP enrolled personnel, semi-annually providing the cognizant medical facility with the total program enrollment number, ensuring medical surveillance compliance is met by coordinating appointments with the supporting MTF, and ensuring personnel complete required appointments. Because the Safety Officer manages and tracks HCP implementation, it is their compliance metrics that will be reported for Annual Audiogram Compliance.

The HCPM at the MTF is subject to periodic assessment to ensure technical management of OA services. As a part of that assessment the HCPM will be asked to present efforts made to monitor Annual Audiogram Compliance that include those outlined in the Responsibilities section above.

a. HCP Enrollment. Accurate HCP enrollment numbers are necessary for calculating compliance.

b. Compliance = the number of individuals enrolled in the HCP who have a current audiogram (dated within 12 months) divided by the number of individuals enrolled. The statistic is: $\# \text{ in HCP with current audiogram} \times 100 = \% \text{ HCP compliance}$.

(1) Calculating Annual Audiogram Compliance. The denominator in the compliance calculation is the number of personnel enrolled in the HCP. The accuracy of this number can be susceptible to HCP enrollee roster availability from Safety Officers and/or Work Area Supervisors and roster updates, especially with the transient nature of military personnel moving to different assignments.

The numerator in the compliance calculation is the number of personnel enrolled in the HCP that received their annual audiogram. Numerator accuracy is contingent on correct data entry into DOEHRS-HC and successful routine (daily/weekly) uploading of the audiogram test results into the DOEHRS DR by the HCT.

(2) Reporting Annual Audiogram Compliance. The Navy reports the percentage of compliance of annual audiograms based on self-reported data from Echelon II commands submitted to the Naval Safety Center and consolidated into the Medical Surveillance Command Report. USMC annual audiogram compliance is collected, consolidated, and reported on through the Medical Readiness Reporting System (MRRS).

The accuracy of the Navy and USMC compliance data for annual audiograms is a result of shared efforts made at local levels between noise hazardous commands and MTF HCP personnel. It is the responsibility of the Safety Officer and Work Area Supervisor to ensure personnel enrolled in the HCP receive appropriate medical surveillance testing and the HCT's to properly conduct, record, and routinely (daily/weekly) upload audiometric testing. It is the responsibility of the OA and/or the HCPM to monitor upload schedule and data integrity issues.

c. Injury Rate.

(1) Incidence of STS = the number of positive STSs (poorer hearing) on annual monitoring tests (minus follow-up exams for the same individual) in the latest fiscal year, divided by the number of individuals monitored. The statistic is: $\# \text{ of STS detected} \times 100 = \% \text{ incidence STS} \# \text{ monitored}$.

(2) Incidence of PTS = the number of PTSs (poorer hearing) in the latest fiscal year divided by the number of individuals tested during that period. The statistic is: $\# \text{ PTS detected} \times 100 = \text{PTS incidence}$.

(3) STS rate metrics guide: $\leq 5\%$ = Green, 6-9% = Yellow, $\geq 10\%$ = Red

2. Population MOEs

a. NMCPHC publishes an annual HCP MOE Compendium Report that provides population metrics and expands on the traditional injury (STS) rate and estimated compliance rates. In addition to the traditional metrics, data is also provided for percentages of hearing impaired, new accessions with hearing impairment, and those eligible for compensation on termination audiogram. These expanded MOEs serve as a standardized operational demand signal that is actionable from the unit commander through the chain of command and serve as an enterprise tool to assess efforts made to minimize preventable hearing loss across the DON.

b. Requests for ad hoc queries should be directed to the Regional Audiologists.

APPENDIX A: List of Supporting Documents

HCP Management Checklist

This appendix provides a detailed program management checklist for HCP Managers to implement the Navy Medicine components of the HCP for noise hazard commands within the MTF AOR. To access this document, please visit the NMCPHC website.

Clinic Assist Visit Checklist

This appendix provides Occupational Audiologist with a standardized checklist to assist when conducting clinical assist visits. To access this document, please visit the NMCPHC website.

Occupational Audiology/HCP Infection Control Guidelines

This appendix provides infection control guidance. To access this document, please visit the NMCPHC website.

Technician Competency Evaluation Form

The standard form shall be used when completing the Technician Competency Evaluation Form. To access this document, please visit the NMCPHC website.

Sample Hearing Injury/PTS Notification Letter

The appendix provides a sample PTS formal notification letter that must be provided to the patient and his/her supervisor within 21 days of determination of a work-related PTS or OSHA recordable hearing loss. To access this document, please visit the NMCPHC website.

Hearing Conservation Program Performance Report

This appendix provides a template for the HCP Performance Report to provide to supported commands. To open this template click on the hyperlink: [HCP Performance Report](#)

SECNAV 5100/1 Form

SECNAV 5100/1 form is used to communicate and coordinate the type of medical surveillance assessments to be conducted by the MTF and to document the completion and outcome of required appointments. To access this document, please visit the NMCPHC website.

Hearing Protective Devices (HPDs)

This appendix provides information on Hearing Protective Devices (HPDs). To access this document, please visit the NMCPHC website.

Audiometric Booth Certification Form

An approved booth certification form with instructions for conducting a booth certification is provided in this appendix. To access this document, please visit the NMCPHC website.

DOEHRS-HC Demographic Data Intake Form

Required data fields for reference and annual audiometric tests can be captured on the demographic data intake form for DOEHRS-HC data entry purposes. To access this document, please visit the NMCPHC website.

SPRINT Score Guide

Speech-in-Noise testing is conducted as part of the comprehensive assessment for Medical Qualification/AFFD evaluations. This appendix provides scoring methodology and disposition recommendations regarding the SPRINT. To access this document, please visit the NMCPHC website.

Hearing Standards

This appendix provides a chart that summarizes applicable Hearing Standards. To access this document, please visit the NMCPHC website.

Job Capability and Safety Analysis

This appendix provides a sample Job Capability and Safety Analysis Worksheet. To access this document, please visit the NMCPHC website.

APPENDIX B: References

- (a) Title 29, Code of Federal Regulation (CFR), Section 1910.95, Occupational Noise Exposure
- (b) Title 29, CFR, Part 1904 Recording and Reporting Occupational Injuries and Illnesses
- (c) Department of Defense Instruction (DoDI) 6055.12, Hearing Conservation Program
- (d) OPNAVINST 5100.23, Navy Safety and Occupational Health Program Manual
- (e) OPNAVINST 5100.19, Navy Safety and Occupation Health Program Manual for Forces Afloat
- (f) Marine Corp Order 6260.3 Series, Marine Corp Hearing Conservation Program
- (g) NAVMED P-5132, Equipment Management Manual
- (h) Bureau of Medicine Instruction 5100.13, Safety and Occupational Health Program
- (i) Navy and Marine Corps Public Health Center, Industrial Hygienist Field Operations Manual
- (j) DoD Instruction 6130.3, Medical Standards for Appointment, Enlistment, or Induction into the Military Services