

Noise Exposure Assessments 101 (Parts 1-3)

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Noise Exposure Assessments – how, how often and how come

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Noise Exposure Assessments 101 (Parts 1-3)

- An easy-to-follow and informative (hopefully) treatise on how the NMCP, DPHS, Industrial Hygiene Department assesses noise exposures
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Noise Exposure Assessments 101 (Parts 1-3)

- Disclaimer – the views expressed in this article are those of the author(s) and do not necessarily reflect the official policy or position of the Department of the Navy, Department of Defense or the United States Government.
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Noise Exposure Assessments 101 (Part 1)

- Chris Jones, Head, Industrial Hygiene Department, part of DPHS, NMCP
 - Five Divisions, 44 folks, 9 CIHs, 1 CSP, 22 non-certified IH, 6 IH Technicians, 1 Secretary and 4 Office Automation Clerks
 - Ms. Seward and Mr. Hatstat, speakers two and three, both CIHs, are 2 of our 5 Division Heads
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Noise Exposure Assessments 101 (Part 1)

- NMCP IH Department is the primary IH service provider for the Hampton Roads Navy community
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What do we do in the Industrial Hygiene Department?

- Anticipate, recognize, evaluate and control hazards arising in Navy workplaces which may affect the health of workers or the surrounding community
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What do we do in the Industrial Hygiene Department?

- Unless those workers are contractors
 - Unless the hazards are in homes
 - We aim to do quantifiable exposure assessments
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Traditional busy micro-text Power Point slide



Noise Exposure Assessments 101 (Part 1) – What is noise?

- Unwanted sound





Who regulates noise? All sorts of folks

- ❑ Occupational Safety and Health Administration (OSHA)
 - ❑ American Conference of Governmental Industrial Hygienists (ACGIH)
 - ❑ Department of Defense (DOD)
 - ❑ Navy
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Noise regulations

- ❑ OSHA rules found in 29 CFR 1910.95 (www.osha.gov)
 - ❑ ACGIH rules found in latest "TLV Book"
 - ❑ DOD rules found in DOD INST 6055.12, "Hearing Conservation Program (HCP)", 3 Dec 2010
 - ❑ Navy rules found in OPNAVINST 5100.23G
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OSHA and ACGIH regs

- OSHA = OEL is 90 dBA, 8 hour time-weighted average (TWA); AL is 85 dBA, 8 hr TWA; 5 dB doubling rate;
 - ACGIH = OEL (TLV) is 85 dBA, 8 hour time-weighted average (TWA); no AL; 3 dB doubling rate;
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DOD and Navy regs

- DOD = OEL is 85 dBA, 8 hour time-weighted average (TWA); no AL; 3 dB doubling rate;
 - Navy = OEL is 84 dBA, 8 hr TWA; 4 dB doubling rate;
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What guidance is used by NMCP IH Department? The DOD's

- ❑ DOD INST 6055.12, "Hearing Conservation Program (HCP)", 3 December 2010
 - ❑ 85 dBA 8 hr TWA, 3 dB doubling rate
 - ❑ HPD must attenuate noise exposure < 85 dBA 8-hr TWA; if they don't, implement administrative controls (stay times)
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DOD INST 6055.12, "Hearing Conservation Program (HCP)"

- ❑ DOD Components should assess the adequacy of hearing protectors, using any generally accepted method for assessing attenuation
 - ❑ No more 104 dBA = dbl HPD
 - ❑ Now, if single HPD doesn't reduce exposures enough, use double
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Noise Exposure Assessments 101 (Part 1)

- You know what regulations we follow
 - You know how loud is loud

 - How often can you be exposed to loud (≥ 85 dBA) noise before you need audiometric testing?
 - It depends on who you ask
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Audiometric testing

- ❑ OSHA pretty much says once
 - ❑ “The employer shall establish and maintain an audiometric testing program ... by making audiometric testing available to all employees whose exposures equal or exceed an 8-hour time-weighted average of 85 decibels.”
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Audiometric testing

- ❑ OSHA also states "At least annually after obtaining the baseline audiogram, the employer shall obtain a new audiogram for each employee exposed at or above an 8-hour time-weighted average of 85 decibels."
 - ❑ ACGIH doesn't address audiometric testing
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Audiometric testing

- ❑ DOD agrees with OSHA ... once
 - ❑ "Personnel exposed to hazardous noise levels ... shall be placed in a hearing testing surveillance program. That program shall include pre-placement, periodic (at least annually), and termination audiograms."
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Audiometric testing

- ❑ Navy sends a different message
 - ❑ 23G states "All personnel routinely exposed to noise in excess of the NOEL ... shall also be included in the hearing conservation program ... and receive periodic monitoring hearing tests."

 - ❑ That sounds like once ... but wait!
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Audiometric testing

- ❑ "Routinely exposed" is described in Navy and Marine Corps Public Health Center TM 6260.51.99-2 (Sep 2008), "Hearing Conservation Program Procedures"
 - ❑ "As a rule of thumb, routinely may be defined as when the TWA exceeds 84 dB(A) on average more than 2 days in any month."
 - ❑ So 2 days/mo is OK ... maybe ...
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Audiometric testing – another twist

- ❑ On 9 August 2002, OSHA responded to an Army proposal to go with two days per month
 - ❑ OSHA said that wasn't protective enough
 - ❑ If 2 days/mo are bad, then 1 day/mo (12 days/yr) must be good!
 - ❑ We've used that since 25 Oct 2002
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Audiometric testing – another twist

- On 13 Feb 2004, 16 mo after we established our policy, OSHA reiterated the one day, ever, emphasis
 - I discovered these letters in Jan 2012
 - What to do?
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Audiometric testing

- ❑ The Navy says 2 days/mo; OSHA says that's no good
 - ❑ We went with 1 day/mo (12 days/yr); if OSHA was formally asked, they'd say that's no good, too
 - ❑ So
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Audiometric testing

- ❑ Both OSHA and DOD say once, ever, which is ... unusual
 - ❑ The Navy is moving to address this even as we speak, but it isn't done yet
 - ❑ Until we get formal Navy guidance, we're sticking with 1 day/mo (12 days/yr)
 - ❑ Unless you're a Marine
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Noise Exposure Assessments 101 (Parts 1-3)

- The second speaker, Ms. Seward, will talk about what we do with our noise measurements – how we crunch the numbers and what we do with them
 - The third speaker, Mr. Hatstat, will talk about reducing noise exposures and how we determine the adequacy of HPDs
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In the event you need more
info

□ 757-953-8911 = office number
