



DEPARTMENT OF THE NAVY
NAVY MEDICINE READINESS AND TRAINING COMMAND
2080 CHILD STREET
JACKSONVILLE FL 32214-5000

IN REPLY REFER TO:

6200

Ser 06IHZZ/0604

8 Aug 23

From: Commander, Navy Medicine Readiness and Training Command Jacksonville
To: Director, Marine Corps Systems Command, Marine Corps Logistics Base, Albany, GA


Subj: PERIODIC INDUSTRIAL HYGIENE SURVEY OF MARINE CORPS SYSTEMS
COMMAND

Ref: (a) OPNAVINST 5100.23H
(b) OPNAV M-5100.23

Encl: (1) Executive Summary
(2) Industrial Hygiene Survey Report (AL23012)

1. A Periodic Industrial Hygiene Survey of Marine Corps Systems Command was conducted on 27 Jul 23 as required by references (a) and (b).

2. My point of contact for this matter is William (Bill) Wolfe, who may be reached via COMM: (904) 546-7033 or email: william.f.wolfe1.civ@health.mil.


G. A. MOELLER
By direction

Copy to:
MCLB Albany – Risk Management Office
Navy Medicine Readiness and Training Unit Albany – Occupational Health Department

EXECUTIVE SUMMARY

A Periodic Industrial Hygiene Survey of the Marine Corps Systems Command was conducted on 27 July 2023 by William (Bill) Wolfe, Industrial Hygienist, Navy Medicine Readiness and Training Command Jacksonville (NMRTC JAX). The purpose of this survey was to identify health hazards present, assess actual health risk, and recommend controls where needed, as well as to assess your Occupational Health program status. No formal response to Industrial Hygiene is needed, although the Command's Safety Office may specify recommendations made in this report as items for mandatory corrective action. For hazard communication/education purposes, it is recommended that shop personnel be made aware of information provided in this report. Following is a summary of major findings and recommendations. Detailed findings, observations and recommendations are provided in enclosure (2) and its associated attachments.

Item: *Hazard Assessments.* Since the previous industrial hygiene survey in December 2018, the only significant change is inclusion of weapons qualification for all Active-Duty personnel which changed the priority of the shop from a Priority 3 to a Priority 2. This survey consisted of a walk-through evaluation of the work areas, sampling as required and employee interviews, as appropriate, to assist in the Industrial Hygiene assessment.

Recommended Action: Please review the individual work center hazard assessments in Attachment (1) for more details on all identified hazards. If there are any changes in work operation from what is described in this report, or if a focused health hazard evaluation of a specific work operation or new project is needed, please contact William (Bill) Wolfe, Industrial Hygienist, NMRTC JAX, 904-546-7033.

Item: *Personal Protective Equipment (PPE).* Personal Protective Equipment (PPE) listed in the Industrial Hygiene survey is specified for the control of identified occupational health stressors. Additional PPE not specified in the survey report (e.g., safety-toed shoes/boots, fall protection, safety vests, etc.) may be required for personnel.

Recommended Action: Consult with your cognizant safety representative, PPE hazard assessment or local instruction/Standard Operating Procedure (SOP) for any additional required PPE specific to your worksite.

Item: *Noise and Hearing Conservation.* Active-Duty personnel in the Command are exposed to noise levels in excess of the DoD Occupational Exposure Limit of 140 decibel-Peak (dBP) during weapons qualification activities. The hearing protection utilized by the Company during weapon qualification activities is not capable of attenuating noise exposures below the OEL.

Recommended Action: Command leadership should ensure that all personnel within the command are enrolled into the Hearing Conservation Program (HCP) and receive annual audiograms, along with directing and emphasizing the need for wearing appropriate hearing protection when conducting noise hazardous processes (i.e., working with noise hazardous equipment, conducting weapons qualification activities, etc.). Single hearing protection is required when noise levels exceed 85 dBA or 140 dBP as a peak exposure, and double hearing protection is required when noise levels exceed 104 dBA or 165 dBP as a peak exposure.

Reference: DoD Instruction 6055.12 of 14 August 2019

Enclosure (1)

**PERIODIC INDUSTRIAL HYGIENE SURVEY
MARINE CORPS LOGISTICS BASE ALBANY
MARINE CORPS SYSETEMS COMMAND
ALBANY, GA
REPORT NUMBER: AL23012**

Ref: (a) OPNAV M-5100.23 of 05 Jun 2020, *Navy Safety and Occupational Health Manual*
(b) Navy and Marine Corps Public Health Center (NMCPHC) Industrial Hygiene Field Operations Manual (IHFOM)

Att: (1) Periodic Industrial Hygiene Survey: Shop Assessments, Medical Surveillance Recommendations and Workplace Monitoring Plan
(2) Neutral Posture for Computer Use/Computer Breaks
(3) Customer Satisfaction Survey

1. **Introduction.** Per references (a) and (b), a Periodic Industrial Hygiene Survey of the Marine Corps Systems Command was conducted on 27 July 2023 by William (Bill) Wolfe, Industrial Hygienist, Navy Medicine Readiness and Training Command Jacksonville (NMRTC JAX). This survey consisted of a walk-through evaluation of the work areas, a review of the operations and the hazards associated and employee interviews, as appropriate, to assist in the industrial hygiene assessment.

2. **Report Contents.** R Reference (a) requires that each Navy workplace, or naval base supported DOD workplace, be thoroughly evaluated in order to accurately identify and quantify all potential health hazards. This report fulfills that requirement. The updated Periodic Industrial Hygiene Survey: Shop Assessments, medical surveillance recommendations and workplace monitoring plan for surveyed work centers are provided in attachment (1). Attachment (2), the Neutral Posture for Computer Use/Computer Breaks, can be used for training personnel in utilizing their computer workstations ergonomically. Attachment (3) is a Customer Satisfaction Survey, so that you may critique the services provided.

3. **Design Reviews.** Per reference (a), industrial hygienists should participate in the review of plans and specifications for local projects, standard operating procedures, purchasing transactions, and contracts which involve, or could create, exposure to potential health hazards, such as toxic materials, radiation, noise, or other health hazards. Cognizant facilities management and/or occupational health and safety personnel should ensure that the supporting industrial hygienist is made aware of such plans and specifications and that they are made available for his/her review.

4. **Re-evaluation Schedule and Changes in the Workplace.** Please retain this report on file and post a copy in a common work area for personnel to review. IH surveys had historically been accomplished with an established survey frequency based on the nature of operations at the Activity/Command in accordance with reference (a). Survey periodicity is scheduled at the command or shop level in accordance with reference (b). Ratings and associated survey frequency are now listed on individual workcenter assessment(s) within this report and reflect as High (annual), Moderate (biennial), or Low (quadrennial) hazard category. Shop periodicity will

Enclosure (2)

be continually re-assessed during future IH surveys. The workcenter is categorized as Moderate and will be reassessed biennially. The next survey will be scheduled for July 2025.

Any significant changes in the type of operations currently performed, current workplace setting, new equipment acquired, or change in the kinds or amounts of chemical used, as identified in the survey, will result in a need for an immediate re-evaluation of the affected area. Industrial Hygiene, Navy Medicine Readiness and Training Command Jacksonville should be notified in the event of any significant operational changes as described above so that a prompt re-evaluation can be completed.

Periodic Industrial Hygiene Survey: Shop Assessment

v1.3

Survey Date: 27 JUL 23**Shop Priority:** 2 - Medium**Command: M38441073 / MARCORSYSCOM ALBANY GA****Shop: Marine Corps Systems Command Albany (MCSC)**

Location: Building 3500

Industrial Hygienist: Wolfe, William
william.f.wolfe1.civ@health.mil**Supervisor:** Wilson, Jeffrey
jeffrey.j.wilson@usmc.mil**This assessment consists of the following sections:**

1. Shop Description
2. Observations and Notes
3. List of Processes
4. Process Information, Controls, and Exposure Assessments
5. Hazards that have Special Notations
6. Medical Surveillance
7. Workplace Monitoring Plan

1. Shop Description**# of Shop Personnel**

Personnel in the Marine Corps Systems Command (MCSC) are responsible for acquiring Marine Corps equipment. The MCSC serves as the Navy's system command for weapons and IT systems to equip and sustain forces with full spectrum, current and future, expedition and crisis response capability. All Active-Duty qualify on weapons annually.

120**2. Observations and Notes**

07/27/2023

Abbreviations: ADM – Administrative, PPE – Personal Protective Equipment, ISO – Isolation, DV – Dilution Ventilation, ENG – Engineering Controls, and LV – Local Ventilation.

07/27/2023

Work-related musculoskeletal disorders (WMSD) risk factors which apply to all administration spaces: Personnel should ensure that all workstations are set up per attachment (2) of the periodic industrial hygiene survey to help prevent WMSD issues from occurring. Gel pads or wrist rests should be employed in front of the keyboards to help maintain a neutral wrist and keep the wrists off of hard edges of the desk. As chairs are replaced, consideration should be given to purchasing adjustable ergonomic chairs. OPNAV M-5100.23 stipulates an ergonomics program is a command responsibility.

3. List of Processes

Process Name	# of Process Personnel
General Housekeeping	120
Professional/Administrative Duties	120
Weapons Qualification	15

4. Process Information, Controls, and Exposure Assessments

Chemical and physical hazards have been assessed for the processes in this shop to determine if the exposure levels are less than Occupational Exposure Limits (OELs). OELs are established to protect workers from the potential health effects due to exposures to

chemical substances or physical agents. The Occupational Safety and Health Administration (OSHA) Permissible Exposure Limits (PELs) are the regulatory OELs to which employers must comply. When appropriate, we recommend alternate, more protective OELs as a best practice.

In the Control Use column, the controls marked as Required are the minimum deemed necessary to protect workers based solely on the IH exposure assessment. Controls marked as Recommended are considered best practice by the IH to further reduce exposures based on alternate OELs or used based on an instruction/Standard Operating Procedure (SOP). Additional PPE (e.g. safety-toed shoes/boots, fall protection, safety vests, etc.) not identified in this section may be required for personnel. Consult with your cognizant Safety representative, PPE hazard assessment or local instruction/SOP/Maintenance Requirement Card (MRC) for any additional required PPE specific to your worksite.

In the Adequate column, Yes signifies the control is in place and capable of controlling exposures during the process. If Adequate is listed as No, the control is not yet in place or incapable of controlling exposures. Additional details will be provided in the comments below the control.

In the Acceptable column, Yes indicates that it is highly unlikely that the worker is exposed to the hazard at or above the OEL without regard to PPE. If Acceptable is listed as No, additional controls are required, and the shop should investigate the feasibility of reducing/eliminating the hazard. Medical Surveillance may also be required (Section 6). If Yes is listed in the Need More Data column, see the Shop's Workplace Monitoring Plan (Section 7).

When appropriate, special hazard notations are noted in the exposure assessments below. Section 5 provides notation explanations and a summary of these hazards. Exposures to these hazards should be significantly reduced by elimination, substitution, engineering controls, or work practice controls.

Process: General Housekeeping

Frequency: Daily Duration: 0-15 minutes

Description: Personnel use household type cleaning products (Lysol (isopropanol), bleach solutions (sodium hypochlorite), Pledge (petroleum distillates), etc.) that are sprayed and wiped with paper towels or cloth rag in personal spaces. All common areas are cleaned and maintained by various personnel within each section. PPE (suitable protective gloves) is available to be worn.

Note: While administrative, PPE, and/or engineering controls, along with the exposure assessment sections below may reflect a limited subset of hazard(s) under "Hazard Name", all products with similar hazards used under this process should follow the same controls and reflects the same exposure assessment acceptability and rationale.

Administrative

Control Description	Hazards Controlled	Control Use	Adequate
Natural Dilution	ISOPROPANOL; SODIUM HYPOCHLORITE	Recommended	Yes
Comments: Cleaning products are used in accordance with product directions and in an office and warehouse environment, natural dilution is recommended to minimize potential airborne exposures to cleaning products.			

PPE

Control Description	Hazards Controlled	Control Use	Adequate
Suitable Protective Gloves	ISOPROPANOL; SODIUM HYPOCHLORITE	Recommended	Yes
Comments: Suitable protective gloves are recommended to be worn whenever conducting general housekeeping to minimize dermal exposure from cleaning constituents.			

Exposure Assessment

Process Name	Hazard Name	OEL	Exposure Level	Acceptable	Need More Data
General Housekeeping	ISOPROPANOL Inhalation	980 mg/m3 8 hr TWA OSHA		Yes	No
SEG: Marine Corps Systems Command Albany (MCSC) Rationale: Potential for airborne concentrations greater than the applicable Occupational Exposure Limit (OEL) is not expected based on method of use, diluted concentration of a household cleaner and limited duration of use. An alternate OEL exists for this stressor (ACGIH TLV 492.0 mg/m3). Whenever possible work to reduce exposures to this level through the use of engineering and work practice controls. See Control Section for recommendations. Contact your IH program office for assistance as needed. The use of PPE provides adequate protection from skin contact to isopropanol.					

General Housekeeping	SODIUM HYPOCHLORITE Inhalation	2 mg/m3 15 min STEL AIHA		Yes	No
SEG: Marine Corps Systems Command Albany (MCSC) Rationale: Potential for airborne concentrations greater than the applicable Occupational Exposure Limit (OEL) is not expected based on method of use, diluted concentration of a household cleaner and limited duration of use. The use of PPE provides adequate protection from skin contact to the sodium hypochlorite (bleach).					

Process: Professional/Administrative Duties

Frequency: Daily Duration: 6-8 hours

Description: Personnel work at desks where the keyboard and mouse are placed on top of the desks. Desks had hard edges and some keyboards were not equipped with a wrist rest or gel pads in front of them. Chairs observed being used were of good ergonomic design; having adjustable height and arm rests, and adequate lumbar support. Sit-Stand workstations can be obtained if requested. WMSD RISK FACTORS: No ergonomic-related injuries/problems directly related to work were reported during the survey walkthrough. Any ergonomic-related injury should be reported to the Command's Safety Office. Excessive sitting (static posture) is a NMCPHC listed reproductive/developmental hazard.

Administrative

Control Description	Hazards Controlled	Control Use	Adequate
Micro Breaks	Static Posture	Recommended	Yes
Comments: Micro breaks are recommended to minimize identified ergonomic hazards. OPNAV M-5100.23 stipulates an ergonomics program is a command responsibility.			

Process: Weapons Qualification

Frequency: Yearly Duration: 6-8 hours

Description: Personnel qualify on various weapons platforms; to include M16s, M4s, M9s, M18s. Qualification activities are conducted at the Paris Island (rifles) or MCLB Albany (pistols) outdoor ranges (heat stress and ultraviolet radiation). Personnel also are responsible for cleaning their weapons after qualification. Weapons are cleaned using Cleaner, Lubricant, and Preservative (CLP) (MIL-PRF-6340). CLP (petroleum distillates) is poured onto a rag and the weapons are wiped down. PPE (suitable protective gloves) is available to be worn.

Note: While administrative, PPE, and/or engineering controls, along with the exposure assessment sections below may reflect a limited subset of hazard(s) under "Hazard Name", all products with similar hazards used under this process should follow the same controls and reflects the same exposure assessment acceptability and rationale. Heat stress is a NMCPHC listed reproductive/developmental hazard.

Administrative

Control Description	Hazards Controlled	Control Use	Adequate
Natural Dilution	LEAD; PETROLEUM DISTILLATES	Recommended	Yes
Comments: Weapons qualification is conducted at the outdoor firing ranges at Paris Island (rifles) or MCLB Albany (pistols), natural dilution is recommended to minimize potential airborne exposures to lead. Weapons cleaning is typically conducted outdoors after qualification, natural dilution is recommended to minimize potential airborne exposures to the CLP (petroleum distillates) used.			
Proper Hand Washing	LEAD; PETROLEUM DISTILLATES	Recommended	Yes
Comments: Proper hand washing is recommended after conducting weapons qualifications activities to minimize the potential of ingestion of lead.			
Proper Hydration	HEAT STRESS	Recommended	Yes
Comments: Adhering to proper hydration recommendations are adequate to minimize the potential for heat stress.			
Work/Rest Cycle	HEAT STRESS; ULTRAVIOLET RADIATION	Recommended	Yes
Comments: Adhering to a work/rest cycle, based on WBGT Flag conditions and Navy/Marine Corps policy, that allows for personnel to take breaks in shaded and/or air-conditioned spaces is adequate to minimize the potential for heat stress issues and UV radiation exposure.			

Control Description	Hazards Controlled	Control Use	Adequate
Earplugs and Ear Muffs	NOISE	Required	No
Comments: Impulse noise from weapons firing requires double hearing protection devices (HPD) to protect workers from significant hazardous noise. Weapons firing can produce peak impulse noise in excess of the DoD standard; 140 decibels dBP. DoD requires double hearing protection for weapons firing and at ranges.			
Suitable Protective Gloves	LEAD; PETROLEUM DISTILLATES	Recommended	Yes
Comments: Suitable protective gloves are recommended to be worn whenever conducting weapons cleaning tasks to minimize dermal exposure to lead and the constituents of the CLP (petroleum distillates) used.			

Exposure Assessment

Process Name	Hazard Name	OEL	Exposure Level	Acceptable	Need More Data
Weapons Qualification	NOISE (Reproductive)	140 dBP 0 Peak OSHA		No	No
SEG: Marine Corps Systems Command Albany (MCSC) Rationale: Personnel exposure to noise in excess of the standard is expected based on exposure to noise above the OEL of 140 dBP during weapons firing.					
Weapons Qualification	HEAT STRESS			Yes	No
SEG: Marine Corps Systems Command Albany (MCSC) Rationale: The potential for heat stress occurring while weapons qualification is minimized based adhering to proper hydration standards and rest breaks that allow personnel to rest in shaded areas and/or in air-conditioned buildings.					
Weapons Qualification	LEAD Inhalation (Carcinogen) (Reproductive) (Ototoxin)	0.05 mg/m3 8 hr TWA OSHA		Yes	No
SEG: Marine Corps Systems Command Albany (MCSC) Rationale: Potential for airborne concentrations greater than the applicable Occupational Exposure Limit (OEL) is not expected based on limited frequency and that exposures occur at outdoor ranges (natural dilution). Workers potentially exposed to airborne lead at any level are required to be informed of the content of Appendices A and B of 29 CFR 1910.1025 (OSHA Lead standard). Hand washing is expected to provide adequate control against transfer and ingestion of the Lead.					
Weapons Qualification	PETROLEUM DISTILLATES Inhalation	2000 mg/m3 8 hr TWA OSHA		Yes	No
SEG: Marine Corps Systems Command Albany (MCSC) Rationale: Potential for airborne concentrations greater than the applicable Occupational Exposure Limit (OEL) is not expected based on method of use and natural dilution (task conducted outdoors). The use of PPE provides adequate protection from skin contact.					
Weapons Qualification	ULTRAVIOLET RADIATION (Carcinogen)			Yes	No
SEG: Marine Corps Systems Command Albany (MCSC) Rationale: The potential for UV radiation issues occurring while weapons qualification is minimized based adhering rest breaks that allow personnel to rest in air-conditioned buildings.					

5. Hazards that have Special Notations

The following is a summary of hazards found to be in use in this Shop that have one or more of the following notations: Carcinogen, Reproductive, Sensitizer, Skin, or Ototoxin. These notations are provided next to the hazard names in Section 4, Chemical and Physical Hazards Exposure Assessments. Exposure to these hazards should be significantly reduced by elimination, substitution, or through work practice and engineering controls.

Carcinogen: A Carcinogen is a hazard capable of causing cancer.

LEAD (IARC (2B)- Possible Human Carcinogen)

ULTRAVIOLET RADIATION (IARC (1)- Human Carcinogen)

Reproductive: Hazards identified with the Reproductive notation are those associated with occupational exposures regarding their potential to cause an adverse effect on reproductive health or fetal development. Pregnant workers and/or workers concerned about their future reproductive capacity should seek the advice of their medical provider before working in an environment that contains reproductive hazards.

LEAD

NOISE

Respiratory sensitizer: Hazard that can induce hypersensitivity of the airways following inhalation of the stressor. Work exposures to these stressors may be severe

None

Dermal sensitizer: Hazard that can induce an allergic response following skin contact with the stressor. Worker exposures to these stressors may be severe.

None

Skin: This notation refers to the potential significant contribution to a worker's overall exposure by the cutaneous route, including mucous membranes and the eyes, by contact with vapors, liquids, and solids. A Skin notation is not applied to chemicals that solely cause dermal irritation.

None

Ototoxin: Ototoxic chemicals either cause hearing loss independently, or work synergistically with hazardous noise to damage the inner ear. Regardless of the mechanism, exposure to certain chemicals, either alone or in concert with noise, results in hearing loss.

LEAD

6. Medical Surveillance

The following are exposure based medical surveillance program recommendations. Workers are included in medical surveillance programs based on several factors: 1) unacceptable exposure assessments, 2) frequency of exposure, and 3) the availability of surveillance criteria. The decision to include a worker in a program is based on potential or actual exposure at or above a regulatory action level, if OSHA has established one. The decision may also be driven by other exposure standards, policy and guidance from the DoD or Navy. The only certification exam recommended in the IH Survey is for Respirator Users.

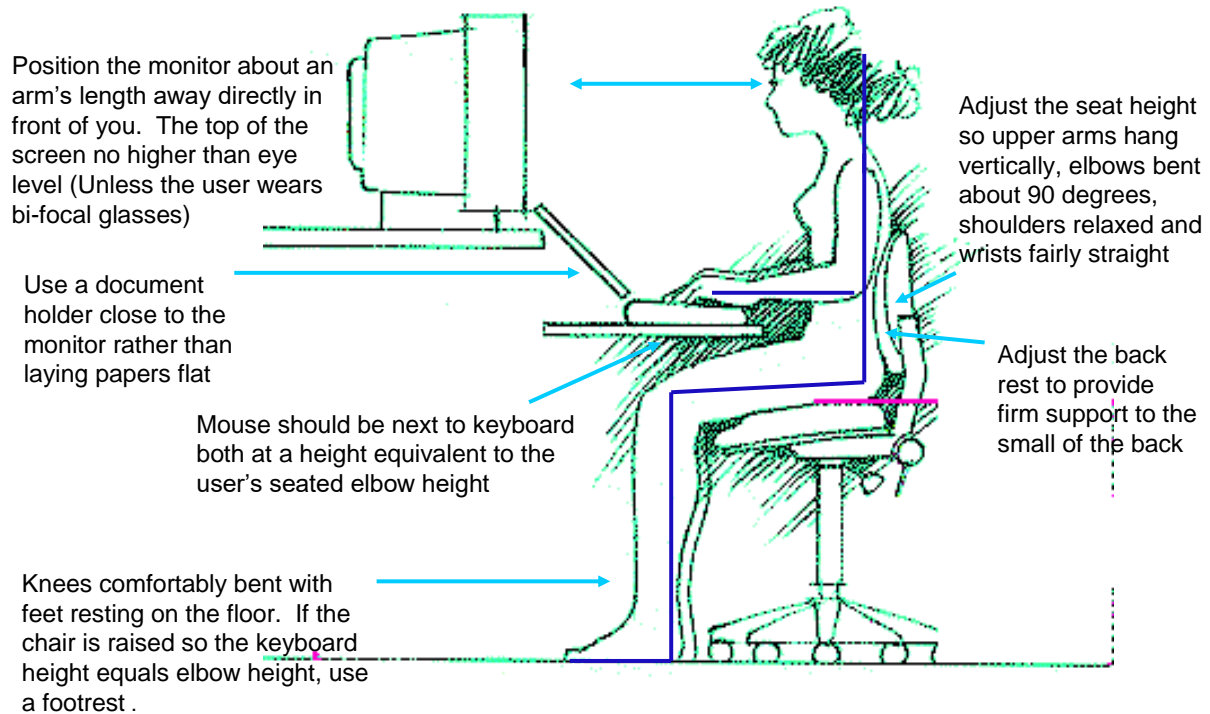
Process Name	SEG Name	Med Surv Program	# Process Personnel
Weapons Qualification	Marine Corps Systems Command Albany (MCSC)	Audiometric Testing	15

7. Workplace Monitoring Plan

Processes listed below require initial and/or periodic exposure monitoring to determine if levels are controlled to below the Occupational Exposure Limits. In order to fulfill this requirement, your assistance in scheduling monitoring is needed by notifying the Industrial Hygiene Department at least 48 hours in advance of the next operation.

No Workplace Monitoring Requested at this time.

Neutral Posture for Computer Use



TIME TO TAKE A COMPUTER BREAK

For every 20 minutes of computer use,
look at an object 20 feet away for
20 seconds. This reduces eyestrain.

Move your eyes side-to-side and
top to bottom. This helps moisten
your eyes and reduces eyestrain.

Cup your eyes with your hands
and close your eyes. Do not put
any direct pressure on your eyes.
This relaxes your face and
moistens your eyes.

Rotate your ankle. This promotes
blood circulation in your legs.

While seated, elongate your back
by pretending there is a cable
attached to your head that is slowly
pulling upwards. This will promote
good posture and relieve some
low back pain.

Slowly pull your arms back as far as
you can, trying to touch your shoulder
blades together. This will reduce
upper back stress.

Close your eyes and gradually
lower your head. This relaxes
your eyes and neck.

Extend your arms and fingers
and rotate. This reduces stress
on the upper extremities.

With your arms at your sides,
shake your fingers. This
relaxes your arms, hands
and fingers.

Shrug your shoulders. This eliminates
stress from the shoulders and upper back.

Tip: Taking 20 second micro-breaks throughout the day to refocus your eyes will reduce fatigue at the end of the day. 20/20 rule: for every 20 minutes of work, rest the eyes 20 seconds.

CUSTOMER SATISFACTION SURVEY

Industrial Hygiene Department
Navy Medicine Readiness and Training Command Jacksonville

Command: _____ Date: _____

Please rate this survey and report by indicating the numbers below that reflect your level of satisfaction:

	Level of Satisfaction				
	Low				High
	1	2	3	4	5
1. Coordination and/or response to request					
2. Courtesy and professionalism of IH personnel					
3. IH personnel's ability to communicate clearly and openly					
4. Clarity of Report					
5. Usefulness of Report					
6. Exposure Monitoring (if applicable)					
7. Timeliness of Report					

8. How can we improve the services we are providing?

9. What other services would you like Industrial Hygiene Services to provide?

10. Additional Comments (add a separate sheet if necessary):

Name: _____ Position: _____ Shop/Codes: _____

PLEASE RETURN THIS SURVEY TO:

Head, Industrial Hygiene Department
Navy Medicine Readiness and Training Command Jacksonville
george.a.moeller2.civ@health.mil

THANKS!!!

Attachment (3)