



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

IN REPLY REFER TO:

6200
Ser 06IHZZ/0605
8 Aug 23

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

Subj: PERIODIC INDUSTRIAL HYGIENE SURVEY OF MARINE CORPS LOGISTICS
BASE ALBANY, LOGISTICS SUPPORT DIVISION (LSD)

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

Encl: (1) Executive Summary
(2) Industrial Hygiene Survey Report (AL23005)

1. A Periodic Industrial Hygiene Survey of Marine Corps Logistics Base Albany, Logistics Support Division (LSD) was conducted on 24 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.

A handwritten signature in black ink, appearing to be "G. A. Moeller", is written over the typed name.

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 Marine Corps Logistics Base (MCLB) Albany, Logistics Support Division (LSD) was conducted on 24 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 MCLB Albany Safety Department 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 (IH) survey in January 2019, there were two (2) significant changes; the first was the inclusion of weapons qualification for all Active-Duty personnel which changed the priority of two (2) shops (Priority 3 to Priority 2), and the second was the merging of two (2) shops. 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.* Personnel in the Division are exposed to noise levels in excess of the DoD Occupational Exposure Limit of 85 decibel-A weighted (dBA) as an 8-hour time weighted averaged (TWA) while conducting vehicle maintenance/repair tasks and other noise hazardous operations. Personnel in the command are also exposed to noise levels in excess of the DoD Occupational Exposure Limit of 140 decibel-Peak (dBp) during weapons qualification activities. Based on noise dosimetry conducted, the current hearing protection utilized by the Division are capable of attenuating noise exposures below the OEL, except during weapons qualification activities.

Recommended Action: Division leadership should ensure that all personnel within the command are enrolled into the Hearing Conservation Program (HCP) and receive annual

Enclosure (1)

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, working around operating aircraft, 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

**PERIODIC INDUSTRIAL HYGIENE SURVEY
MARINE CORPS LOGISTICS BASE ALBANY (MCLB)
LOGISTICS SUPPORT DIVISION (LSD)
ALBANY, GA
REPORT NUMBER: AL23005**

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) Noise Survey, Hearing Protection and Personal Noise Sampling
(3) Neutral Posture for Computer Use/Computer Breaks
(4) Customer Satisfaction Survey

1. **Introduction.** Per references (a) and (b), a Periodic Industrial Hygiene Survey of MCLB Albany, Logistics Support Division (LSD) was conducted on 24 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.** 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). A list of the noise hazardous areas and operations and the required level of hearing protection is provided in attachment (2) along with a summary of personal noise sampling results. Attachment (3), the Neutral Posture for Computer Use/Computer Breaks, can be used for training personnel in utilizing their computer workstations ergonomically. Attachment (4) 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

Enclosure (2)

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 be continually re-assessed during future IH surveys.

The following table provides the shop hazard category and re-evaluation schedule for the work centers.

Work Center	Hazard Category⁽¹⁾	Current Survey Date (Mon/Yr)	Next Survey Due (Mon/Yr)
LSD, Administrative Offices	2	JULY 2023	JULY 2025
LSD, Travel Management Office	2	JULY 2023	JULY 2025
LSD, Garrison Supply Branch	2	JULY 2023	JULY 2025
LSD, Non-Tactical Vehicle Branch	2	JULY 2023	JULY 2025
(1) Hazard categories are based on a consideration of health risk of identified chemical stressors and potential of these stressors to exceed Navy occupational exposure limits, ACGIH Threshold Limit Values, or OSHA substance-specific standards. Hazard category determination protocol is spelled out in reference (b), Chapter 2. Industrial Hygiene has discretion to conduct surveys more often than the minimum frequencies listed above.			

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 (904-546-7033), NMRTC JAX should be notified in the event of any significant operational changes as described above so that a prompt re-evaluation can be completed.

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INDUSTRIAL HYGIENE SURVEY
WORKCENTER SPECIFIC EVALUATIONS FOR
MARINE CORPS LOGISTICS BASE ALBANY
LOGISTICS SUPPORT DIVISION (LSD)
ALBANY, GA
JULY 2023

DEPARTMENTS/WORKCENTERS	PAGE
LSD, Administrative Offices	2
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LSD, Garrison Supply Branch	12
LSD, Non-Tactical Vehicle Branch	22

Periodic Industrial Hygiene Survey: Shop Assessment

v1.3

Survey Date: 24 JUL 23**Shop Priority:** 2 - Medium**Command: N67008 /****Shop: Logistics Support Div, Administrative Offices**

Location: Building 3500

Industrial Hygienist: Wolfe, William
william.f.wolfe1.civ@health.mil**Safety POC:** Brinkley, Ashley
ashley.brinkley@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 are responsible for the day-to-day operations of the Division, and includes the Director, Deputy Director, Program Assistant, Fund Administrator, and the Purchasing Agent.

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2. Observations and Notes

07/24/2023

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

07/24/2023

Work-related musculoskeletal disorders (WMSD) risk factors which apply to all administration spaces: Personnel should ensure that all workstations are set up per attachment (3) 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	4
Professional/Administrative Duties	4
Weapons Qualification	1

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 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/m ³ 8 hr TWA OSHA		Yes	No

SEG: LSD - Administrative Offices

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/m ³ 15 min STEL AIHA	Yes	No
SEG: LSD - Administrative Offices 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	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: LSD - Administrative Offices 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: LSD - Administrative Offices 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: LSD - Administrative Offices 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: LSD - Administrative Offices 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: LSD - Administrative Offices 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	LSD - Administrative Offices	Audiometric Testing	1

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.

Periodic Industrial Hygiene Survey: Shop Assessment

v1.3

Survey Date: 24 JUL 23**Shop Priority:** 2 - Medium**Command: N67008 /****Shop: Logistics Support Div, Travel Management Office**

Location: Building 3500

Industrial Hygienist: Wolfe, William
william.f.wolfe1.civ@health.mil**Safety POC:** Brinkley, Ashley
ashley.brinkley@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 are responsible for processing the paperwork for passports and making the arrangements for the travel of military and government personnel and for moving their household goods.

4

2. Observations and Notes

07/24/2023

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

07/24/2023

Work-related musculoskeletal disorders (WMSD) risk factors which apply to all administration spaces: Personnel should ensure that all workstations are set up per attachment (3) 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	4
Professional/Administrative Duties	4
Weapons Qualification	1

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 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: LSD - Travel Management Office
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: LSD - Travel Management Office 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: LSD - Travel Management Office 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: LSD - Travel Management Office 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: LSD - Travel Management Office 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: LSD - Travel Management Office 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: LSD - Travel Management Office 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	LSD - Travel Management Office	Audiometric Testing	1

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.

Periodic Industrial Hygiene Survey: Shop Assessment

v1.3

Survey Date: 24 JUL 23**Shop Priority:** 2 - Medium**Command: N67008 /****Shop: Logistics Support Div, Garrison Supply Branch**

Location: Buildings 3500, 1330, 1260 (HAZMAT Storage), and 7523 (Armory)

Industrial Hygienist: Wolfe, William
william.f.wolfe1.civ@health.mil**Safety POC:** Brinkley, Ashley
ashley.brinkley@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 are responsible for administration of MCLB Albany's supply system; to include purchasing, inventorying, storing, and the distribution of equipment and gear to Command personnel. This shop also maintains the MCLB Albany armory, located in Building 7523, maintains the HAZMAT storage area for the Base and the operation of a ServMart for the distribution of supplies and equipment. The MCLB Albany Supply Officer is part of this shop; however, the officer is also the Headquarters & Support (H&S) Company commander, and is accounted for as the Company Commander.

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2. Observations and Notes

07/24/2023

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

07/24/2023

Work-related musculoskeletal disorders (WMSD) risk factors which apply to all administration spaces: Personnel should ensure that all workstations are set up per attachment (3) 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
Armory Operations	3
Forklift Operations	5
General Housekeeping	26
HAZMAT Storage Operations	22
Noise Hazardous Operations	21
Professional/Administrative Duties	6

Warehousing Operations	23
Weapons Qualification	12

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: Armory Operations

Frequency: Monthly Duration: 4-6 hours

Description: Personnel are responsible for maintaining the inventory and repair of weapons assigned to the unit. The inventory consists of M16s, M4s, M9s, and M18s. This requires personnel to periodically conduct visually demanding tasks like disassembling, inspecting, and cleaning and lubricating; using Cleaner, Lubricant, and Preservative (CLP) (MIL-PRF-6340), all weapons in the armory. CLP (petroleum distillates) is poured onto a rag and the weapons are wiped down. PPE (suitable protective gloves) is available to be worn. Inspection and maintenance may require personnel to sit and/or stand for prolonged periods of time (static posture).

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.

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.

Excessive sitting and standing are NMCPHC listed reproductive/developmental hazards.

Engineering

Control Description	Hazards Controlled	Control Use	Adequate
Adequate Task Lighting	Visual Demand	Recommended	Yes
Comments: Having adequate task lighting is recommended to minimize eye strain (visual demand) during the disassembly and assembly of the various weapon platforms maintained by the armory.			

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.			

Natural Dilution	LEAD; PETROLEUM DISTILLATES	Recommended	Yes
Comments: Weapons/Equipment inspection and maintenance is conducted indoors in the armory, natural dilution is recommended to minimize potential airborne exposures to the CLP (petroleum distillates) used.			
Proper Hand Washing	LEAD	Recommended	Yes
Comments: Proper hand washing is recommended after conducting weapons qualifications activities to minimize the potential of ingestion of lead.			

PPE

Control Description	Hazards Controlled	Control Use	Adequate
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
Armory Operations	LEAD Inhalation (Carcinogen) (Reproductive) (Ototoxin)	0.05 mg/m ³ 8 hr TWA OSHA		Yes	No
SEG: LSD - Garrison Supply Branch Rationale: Potential for airborne concentrations greater than the applicable Occupational Exposure Limit (OEL) is not expected based on limited frequency and 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.					
Armory Operations	PETROLEUM DISTILLATES Inhalation	2000 mg/m ³ 8 hr TWA OSHA		Yes	No
SEG: LSD - Garrison Supply Branch Rationale: Potential for airborne concentrations greater than the applicable Occupational Exposure Limit (OEL) is not expected based on method of use and natural dilution. The use of PPE provides adequate protection from skin contact.					

Process: Forklift Operations

Frequency: Daily Duration: 1-2 hours

Description: Personnel operate gasoline, diesel, and electric powered forklifts outdoors and inside of the supply warehouse. This process also involves the refueling of the forklifts, which is conducted outdoors.

Administrative

Control Description	Hazards Controlled	Control Use	Adequate
Natural Dilution	CARBON MONOXIDE; DIESEL EXHAUST; DIESEL FUEL; GASOLINE	Recommended	Yes
Comments: Forklift operations are conducted in the supply warehouses and/or outside, natural dilution is recommended to minimize the potential airborne exposures to forklift exhaust constituents. Forklifts are also refueled with gasoline or diesel outdoors; natural dilution is recommended to minimize airborne exposure to gasoline or diesel fuel.			

PPE

Control Description	Hazards Controlled	Control Use	Adequate
Suitable Protective Gloves	DIESEL FUEL; GASOLINE	Recommended	Yes
Comments: Suitable protective gloves are recommended to be worn whenever refueling the forklifts with gasoline or diesel fuel to minimize dermal exposure to the fuel.			

Exposure Assessment

Process Name	Hazard Name	OEL	Exposure Level	Acceptable	Need More Data
Forklift Operations	CARBON MONOXIDE Inhalation (Reproductive) (Ototoxin)	55 mg/m3 8 hr TWA OSHA		Yes	No
SEG: LSD - Garrison Supply Branch Rationale: Potential for airborne concentrations greater than the applicable Occupational Exposure Limit (OEL) is not anticipated based on natural dilution (supply warehouse and/or outdoors). An alternate OEL exists for this stressor (ACGIH TLV 29.0 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.					
Forklift Operations	DIESEL EXHAUST Inhalation (Carcinogen)			Yes	No
SEG: LSD - Garrison Supply Branch Rationale: An Occupational Exposure Limit (OEL) has not been established for this hazard by OSHA or Navy recognized authorities. As good practice, exposure should be minimized to the greatest degree feasible. Potential for exposure to levels of health significance is not expected based on the frequency of the task and presence of adequate dilution ventilation.					
Forklift Operations	DIESEL FUEL Inhalation (Skin)	100 mg/m3 8 hr TWA ACGIH Inhalable		Yes	No
SEG: LSD - Garrison Supply Branch Rationale: Potential for airborne concentrations greater than the applicable Occupational Exposure Limit (OEL) is not anticipated based on natural dilution (fueling occurs outdoors). The use of PPE provides adequate protection from skin and eye contact.					
Forklift Operations	GASOLINE Inhalation (Carcinogen) (Reproductive)	890 mg/m3 8 hr TWA ACGIH		Yes	No
SEG: LSD - Garrison Supply Branch Rationale: Potential for airborne concentrations greater than the applicable Occupational Exposure Limit (OEL) is not anticipated based on natural dilution (fueling occurs outdoors). The use of PPE provides adequate protection from skin and eye contact.					

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 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: LSD - Garrison Supply Branch

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
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SEG: LSD - Garrison Supply Branch

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: HAZMAT Storage Operations

Frequency: Daily Duration: 1-2 hours

Description: Personnel are responsible for processing hazardous materials received on base. This includes receiving, tracking, storing, and issuing hazardous material, which may require the lifting and carrying of items that may be in excess of 35 pounds (physical stress - heavy lifting).

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.

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.

Heavy lifting is a NMCPHC listed reproductive/developmental hazard.

Engineering

Control Description	Hazards Controlled	Control Use	Adequate
Forklifts, Carts and/or Dollies	PHYSICAL STRESS	Recommended	Yes
Comments: The use of material handling equipment (i.e., forklifts, carts and/or dollies) is recommended to minimize ergonomic hazard during supply/material handling tasks that require the lifting and carrying of heavy items. OPNAV M-5100.23 stipulates an Ergonomics Program is the Command's responsibility.			

Administrative

Control Description	Hazards Controlled	Control Use	Adequate
Proper Lifting Techniques (2-person lifts)	PHYSICAL STRESS	Recommended	Yes
Comments: A two-person lift is recommended for items weighing 35 pounds or more. This weight limit may be decreased based on required posture, height of lift, and other factors. The NIOSH Lifting Equation or ACGIH TLVs for Lifting Tasks should be consulted in those cases. OPNAV M-5100.23 stipulates an Ergonomics Program is the Command's responsibility.			

PPE

Control Description	Hazards Controlled	Control Use	Adequate
Suitable Protective Gloves	PETROLEUM DISTILLATES	Recommended	Yes
Comments: Suitable protective gloves are recommended to be worn whenever handling hazardous waste material drums to minimize dermal exposure from any contamination on the drums.			

Exposure Assessment

Process Name	Hazard Name	OEL	Exposure Level	Acceptable	Need More Data
HAZMAT Storage Operations	PETROLEUM DISTILLATES Inhalation	2000 mg/m ³ 8 hr TWA OSHA		Yes	No

SEG: LSD - Garrison Supply Branch

Rationale: Potential for airborne concentrations greater than the applicable Occupational Exposure Limit (OEL) is not expected based on natural dilution (task conducted in a large warehouse or outdoors). The use of PPE provides adequate protection from skin contact.

HAZMAT Storage Operations	PHYSICAL STRESS			Yes	No
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SEG: LSD - Garrison Supply Branch

Rationale: The potential for physical stresses (heavy lifting) exposure occurring during supply/material handling tasks are minimized based on adhering to proper lifting techniques and the use of material handling equipment (forklifts/carts/dollies). NIOSH's Lifting Equation or ACGIH's Lifting TLV table should be utilized for maximum weights to be lifted. Any ergonomic related injury should be reported to the unit safety representative.

Process: Noise Hazardous Operations

Frequency: Daily Duration: 2-4 hours

Description: Personnel are responsible for various tasks that may require them to work around noise hazardous equipment like power tools, operate forklifts, and/or operate military and/or other large vehicles.

PPE

Control Description	Hazards Controlled	Control Use	Adequate
Earplugs and/or Ear Muffs	NOISE	Required	Yes

Comments: Single hearing protection is required for noise levels at or above 85 dBA or 140 dBP. Double hearing protection is required for noise levels at or above 104 dBA or 165 dBP.

Exposure Assessment

Process Name	Hazard Name	OEL	Exposure Level	Acceptable	Need More Data
Noise Hazardous Operations	NOISE (Reproductive)	85 dBA 8 hr TWA DoD		No	Yes

SEG: LSD - Garrison Supply Branch

Rationale: Exposure to noise levels in excess of the DoD OEL of 85 dBA is anticipated based on working with or in close proximity to noise hazardous equipment.

Process: Professional/Administrative Duties

Frequency: Daily Duration: 4-6 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: Warehousing Operations

Frequency: Daily Duration: 6-8 hours

Description: Personnel are responsible for all supply chain requirements (i.e. shipping, receiving, storage, distribution, etc.). This sometimes requires the lifting and carrying of items that may be in excess of 50 pounds (physical stress - heavy lifting). Dollies and carts are used to move heavy loads.

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 Collateral Duty Safety Officer.

Heavy lifting is a NMCPHC listed reproductive/developmental hazard.

Engineering

Control Description	Hazards Controlled	Control Use	Adequate
Forklifts, Carts and/or Dollies	PHYSICAL STRESS	Recommended	Yes
Comments: The use of material handling equipment (i.e., forklifts, carts and/or dollies) is recommended to minimize ergonomic hazard during supply/material handling tasks that require the lifting and carrying of heavy items. OPNAV M-5100.23 stipulates an Ergonomics Program is the Command's responsibility.			

Administrative

Control Description	Hazards Controlled	Control Use	Adequate
Proper Lifting Techniques (2-person lifts)	PHYSICAL STRESS	Recommended	Yes
Comments: A two-person lift is recommended for items weighing 35 pounds or more. This weight limit may be decreased based on required posture, height of lift, and other factors. The NIOSH Lifting Equation or ACGIH TLVs for Lifting Tasks should be consulted in those cases. OPNAV M-5100.23 stipulates an Ergonomics Program is the Command's responsibility.			

Exposure Assessment

Process Name	Hazard Name	OEL	Exposure Level	Acceptable	Need More Data
Warehousing Operations	PHYSICAL STRESS			Yes	No
SEG: LSD - Garrison Supply Branch Rationale: The potential for physical stresses (heavy lifting) exposure occurring during supply/material handling tasks are minimized based on adhering to proper lifting techniques and the use of material handling equipment (forklifts/carts/dollies). NIOSH's Lifting Equation or ACGIH's Lifting TLV table should be utilized for maximum weights to be lifted. Any ergonomic related injury should be reported to the unit safety representative.					

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
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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	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.			

PPE

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: LSD - Garrison Supply Branch 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: LSD - Garrison Supply Branch 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) (Ototoxic)	0.05 mg/m3 8 hr TWA OSHA		Yes	No
SEG: LSD - Garrison Supply Branch 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: LSD - Garrison Supply Branch 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
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SEG: LSD - Garrison Supply Branch
 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.

- DIESEL EXHAUST (IARC (1)- Human Carcinogen)
- GASOLINE (OSHA/NIOSH (Ca)- Carcinogen)
- 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.

- CARBON MONOXIDE
- GASOLINE
- 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.

- DIESEL FUEL

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.

- CARBON MONOXIDE
- 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
Noise Hazardous Operations	LSD - Garrison Supply Branch	Audiometric Testing	21
Weapons Qualification	LSD - Garrison Supply Branch	Audiometric Testing	12

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.

Entry ID	Process Name	Hazard Name	Sampling Task Type	Projected Due Date	Frequency
2175952	Noise Hazardous Operations	NOISE	Noise Sound Level/ Octave Band/ Audiometric Booth	06/30/2025	One Time
2175956	Noise Hazardous Operations	NOISE	Noise Dosimetry	06/30/2025	One Time

Periodic Industrial Hygiene Survey: Shop Assessment

v1.3

Survey Date: 24 JUL 23**Shop Priority:** 2 - Medium**Command: N67008 /****Shop: Logistics Support Div, Non-Tactical Vehicle**

Location: Building 5400

Industrial Hygienist: Wolfe, William
william.f.wolfe1.civ@health.mil**Safety POC:** Brinkley, Ashley
ashley.brinkley@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 are responsible for managing the government/military fleet of vehicles on MCLB Albany. This includes operating a base taxi, dispatching government/military vehicles, conducting maintenance on fleet vehicles; to include preventive maintenance, tire repair, etc., and operating a fleet of delivery trucks used for the distribution of supplies.

35

2. Observations and Notes

07/24/2023

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

07/24/2023

Work-related musculoskeletal disorders (WMSD) risk factors which apply to all administration spaces: Personnel should ensure that all workstations are set up per attachment (3) 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	35
Noise Hazardous Operations	30
Painting, Spray/Aerosol	20
Professional/Administrative Tasks	35
Refueling	16
Supply/Tool Room	3
Tire Repair	8

Vehicle Maintenance/Repair	8
Weapons Qualification	6

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 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: LSD - Non-Tactical Vehicle Branch

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
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SEG: LSD - Non-Tactical Vehicle Branch

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: Noise Hazardous Operations

Frequency: Daily Duration: 4-6 hours

Description: Personnel are responsible for various tasks (i.e., equipment inspections, equipment/vehicle maintenance, tire repair, etc.) that may require them to work around noise hazardous equipment like pneumatic tools, operate forklifts, heavy equipment, and/or operate military vehicles.

PPE

Control Description	Hazards Controlled	Control Use	Adequate
Earplugs and/or Ear Muffs	NOISE	Required	Yes

Comments: Single hearing protection is required for noise levels at or above 85 dBA or 140 dBP. Double hearing protection is required for noise levels at or above 104 dBA or 165 dBP.

Exposure Assessment

Process Name	Hazard Name	OEL	Exposure Level	Acceptable	Need More Data
Noise Hazardous Operations	NOISE (Reproductive)	85 dBA 8 hr TWA DoD	90.7 dBA	No	Yes

SEG: LSD - Non-Tactical Vehicle Branch

Rationale: Exposure to noise levels in excess of the DoD OEL of 85 dBA is anticipated based on working with or in close proximity to noise hazardous equipment.

Process: Painting, Spray/Aerosol

Frequency: Special Occasions Duration: 0-15 minutes

Description: Personnel occasionally label equipment using aerosol/spray paint. Spray painting activities are typically conducted outdoors, but are sometimes (rarely) conducted in the vehicle maintenance bays. Available PPE is adequate to prevent splash and skin contact.

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
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Natural Dilution	CARBON BLACK; TOLUENE; XYLENE	Recommended	Yes
Comments: Aerosol/spray painting tasks are typically conducted outdoors and may also be conducted in the vehicle maintenance bays, natural dilution (either outdoors or the vehicle maintenance bays with the roll-up doors open) is recommended to minimize the potential airborne exposures to the constituents of the spray paints.			

PPE

Control Description	Hazards Controlled	Control Use	Adequate
Suitable Protective Eyewear	CARBON BLACK; TOLUENE; XYLENE	Recommended	Yes
Comments: Suitable protective eyewear is recommended to be worn whenever conducting spray/aerosol painting tasks to minimize potential ocular exposure to the constituents of the spray/aerosol paint during application.			
Suitable Protective Gloves	CARBON BLACK; TOLUENE; XYLENE	Recommended	Yes
Comments: Suitable protective gloves are recommended to be worn whenever conducting spray/aerosol painting tasks to minimize potential dermal exposure to the constituents of the spray/aerosol paint during application.			

Exposure Assessment

Process Name	Hazard Name	OEL	Exposure Level	Acceptable	Need More Data
Painting, Spray/Aerosol	CARBON BLACK Inhalation (Carcinogen)	3.5 mg/m3 8 hr TWA OSHA		Yes	No
SEG: LSD - Non-Tactical Vehicle Branch Rationale: Potential for airborne concentrations greater than the applicable Occupational Exposure Limit (OEL is not anticipated based on the frequency and duration of the tasks and natural dilution (tasks are conducted in the large hangar bay). An alternate OEL exists for this stressor (ACGIH TLV 3.0 mg/m3). Whenever possible work to reduce exposures to this level through the use of engineering and work controls. See Controls Section for recommendations. Contact your IH program office for assistance as needed. The use of PPE provides adequate protection from skin and eye contact.					
Painting, Spray/Aerosol	TOLUENE Inhalation (Reproductive) (Ototoxin)	753 mg/m3 8 hr TWA OSHA		Yes	No
SEG: LSD - Non-Tactical Vehicle Branch Rationale: Potential for airborne concentrations greater than the applicable Occupational Exposure Limit (OEL) is not anticipated based on the frequency of the task and natural dilution (task is conducted in the large hangar bay). An alternate OEL exists for this stressor (ACGIH TLV 75.0 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 and eye contact.					
Painting, Spray/Aerosol	XYLENE Inhalation (Reproductive) (Ototoxin)	435 mg/m3 8 hr TWA OSHA		Yes	No
SEG: LSD - Non-Tactical Vehicle Branch Rationale: Potential for airborne concentrations greater than the applicable Occupational Exposure Limit (OEL) is not anticipated based on the frequency of the task and natural dilution (task is conducted in the large hangar bay). An alternate OEL exists for this stressor (ACGIH TLV 86.87 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 and eye contact.					

Process: Professional/Administrative Tasks

Frequency: Daily Duration: 4-6 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: Refueling

Frequency: Daily Duration: 1-2 hours

Description: Personnel are responsible for refueling fleet vehicles with either gasoline or diesel fuel. Fueling is typically conducted outdoors at the fueling station located adjacent to Building 5400 but is sometimes conducted at other locations using a fuel truck. 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.

Engineering

Control Description	Hazards Controlled	Control Use	Adequate
Fuel Pump	DIESEL FUEL; GASOLINE	Required	Yes
Comments: Used to minimize fuel contact and exposure through limiting contact via transfer and filling.			

Administrative

Control Description	Hazards Controlled	Control Use	Adequate
Natural Dilution	DIESEL FUEL; GASOLINE	Recommended	Yes
Comments: Vehicles are also refueled with gasoline or diesel fuel outdoors; natural dilution is recommended to minimize airborne exposure to gasoline or diesel fuel.			

PPE

Control Description	Hazards Controlled	Control Use	Adequate
Suitable Protective Gloves	DIESEL FUEL; GASOLINE	Recommended	Yes
Comments: Suitable protective gloves are recommended to be worn whenever refueling the vehicles with gasoline or diesel fuel to minimize dermal exposure to the fuel.			

Exposure Assessment

Process Name	Hazard Name	OEL	Exposure Level	Acceptable	Need More Data
Refueling	DIESEL FUEL Inhalation (Skin)	100 mg/m3 8 hr TWA ACGIH Inhalable		Yes	No
SEG: LSD - Non-Tactical Vehicle Branch Rationale: Potential for airborne concentrations greater than the applicable Occupational Exposure Limit (OEL) is not anticipated based on natural dilution (fueling occurs outdoors). The use of PPE provides adequate protection from skin and eye contact.					
Refueling	GASOLINE Inhalation (Carcinogen) (Reproductive)	890 mg/m3 8 hr TWA ACGIH		Yes	No
SEG: LSD - Non-Tactical Vehicle Branch Rationale: Potential for airborne concentrations greater than the applicable Occupational Exposure Limit (OEL) is not anticipated based on natural dilution (fueling occurs outdoors). The use of PPE provides adequate protection from skin and eye contact.					

Process: Supply/Tool Room

Frequency: Daily Duration: 6-8 hours

Description: Personnel are responsible for the supply chain for the shop, as well as the issuance of tools used during vehicle maintenance. This may require personnel to have to lift and carry items that may be in excess of 35 pounds (physical stress - heavy lifting).

WMSD RISK FACTORS: No ergonomic-related injuries/ problems were reported during the survey walkthrough. Any ergonomic related injury should be reported to the Command's Safety Office.

Heavy lifting is a NMCPHC listed reproductive/developmental hazard.

Administrative

Control Description	Hazards Controlled	Control Use	Adequate
Proper Lifting Technique (2-person lift)	PHYSICAL STRESS	Recommended	Yes

Comments: A two-person lift is recommended for items weighing 35 pounds or more. This weight limit may be decreased based on required posture, height of lift, and other factors. The NIOSH Lifting Equation or ACGIH TLVs for Lifting Tasks should be consulted in those cases. OPNAV M-5100.23 stipulates an Ergonomics Program is the Command's responsibility.

Exposure Assessment

Process Name	Hazard Name	OEL	Exposure Level	Acceptable	Need More Data
Supply/Tool Room	PHYSICAL STRESS			Yes	No

SEG: LSD - Non-Tactical Vehicle Branch

Rationale: The potential for physical stresses (heavy lifting) exposure occurring during supply/tool room tasks are minimized based on adhering to proper lifting techniques and the use of material handling equipment (forklifts/carts/dollies). NIOSH's Lifting Equation or ACGIH's Lifting TLV table should be utilized for maximum weights to be lifted. Any ergonomic related injury should be reported to the unit safety representative.

Process: Tire Repair

Frequency: Daily Duration: 2-4 hours

Description: Personnel are responsible for conducting tire repair and replacement tasks using a mobile repair truck and/or in the tire shop. Various chemicals (rubber prep and vulcanizing cement) are used during repairs. 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.

Engineering

Control Description	Hazards Controlled	Control Use	Adequate
Lift Assist Devices	PHYSICAL STRESS	Recommended	Yes

Comments: The use of lift assist devices (i.e., hoists, lift tables, etc.) is recommended to minimize ergonomic hazards during tire repair tasks that require the lifting and carrying of heavy items. OPNAV M-5100.23 stipulates an Ergonomics Program is the Command's responsibility.

Administrative

Control Description	Hazards Controlled	Control Use	Adequate
Natural Dilution	HEPTANE; NATURAL RUBBER LATEX; PERCHLOROETHYLENE	Recommended	Yes

Comments: Tire repair tasks are conducted either outdoors (mobile repair truck) or in a large open bay (with bay doors open), natural dilution is recommended to minimize potential airborne exposure to the chemicals used during tire repair.

Proper Lifting Technique (2-person lifts)	PHYSICAL STRESS	Recommended	Yes
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Comments: A two-person lift is recommended for items weighing 35 pounds or more. This weight limit may be decreased based on required posture, height of lift, and other factors. The NIOSH Lifting Equation or ACGIH TLVs for Lifting Tasks should be consulted in those cases. OPNAV M-5100.23 stipulates an Ergonomics Program is the Command's responsibility.

PPE

Control Description	Hazards Controlled	Control Use	Adequate
Suitable Protective Gloves	HEPTANE; NATURAL RUBBER LATEX; PERCHLOROETHYLENE	Recommended	Yes
Comments: Suitable protective gloves are recommended to be worn whenever conducting tire repair tasks to minimize dermal exposure to the constituents of the chemicals used during the task.			

Exposure Assessment

Process Name	Hazard Name	OEL	Exposure Level	Acceptable	Need More Data
Tire Repair	HEPTANE Inhalation	1640 mg/m ³ 8 hr TWA ACGIH		Yes	No
SEG: LSD - Non-Tactical Vehicle Branch Rationale: Potential for airborne concentrations greater than the applicable Occupational Exposure Limit (OEL) is not anticipated based on natural dilution. The use of PPE provides adequate protection from skin and eye contact.					
Tire Repair	NATURAL RUBBER LATEX Inhalation (Skin) (Respiratory Sensitizer) (Dermal Sensitizer)	0.0001 mg/ m ³ 8 hr TWA ACGIH Inhalable		Yes	No
SEG: LSD - Non-Tactical Vehicle Branch Rationale: Potential for airborne concentrations greater than the applicable Occupational Exposure Limit (OEL) is not anticipated based on natural dilution and that the natural rubber is bound in the matrix of the cement and is not in powder form. The use of PPE provides adequate protection from skin and eye contact.					
Tire Repair	PERCHLOROETHYLENE Inhalation (Carcinogen) (Reproductive)	678 mg/m ³ 8 hr TWA OSHA		Yes	No
SEG: LSD - Non-Tactical Vehicle Branch Rationale: Potential for airborne concentrations greater than the applicable Occupational Exposure Limit (OEL) is not expected based on natural dilution. An alternate OEL exists for this stressor (ACGIH TLV 170.0 mg/m ³). 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 and eye contact.					
Tire Repair	PHYSICAL STRESS			Yes	No
SEG: LSD - Non-Tactical Vehicle Branch Rationale: The potential for physical stresses (heavy lifting) exposure occurring during tire repair tasks are minimized based on adhering to proper lifting techniques and the use of material handling equipment (forklifts/carts/dollies). NIOSH's Lifting Equation or ACGIH's Lifting TLV table should be utilized for maximum weights to be lifted. Any ergonomic related injury should be reported to the unit safety representative.					

Process: Vehicle Maintenance/Repair

Frequency: Daily Duration: 6-8 hours

Description: Personnel are responsible for the maintenance of the Base's fleet of government/military vehicles. This requires personnel to use various chemical products (i.e., fuels, lubricants, oils, parts cleaners, coolants, adhesives, etc.) during the maintenance of the vehicles and equipment. Personnel may have to work in awkward positions or perform heavy lifting (physical stress). Vehicle maintenance is conducted in a non-climate-controlled building (heat stress). Available PPE is adequate to prevent splash and skin contact.

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.

WMSD RISK FACTORS: No ergonomic-related injuries/ problems were reported during the survey walkthrough. Any ergonomic related injury should be reported to the Command's Safety Office.

Heavy lifting is a NMCPHC listed reproductive/developmental hazard.

Heat stress is a NMCPHC listed reproductive/developmental hazard.

Engineering

Control Description	Hazards Controlled	Control Use	Adequate
Carts, Lifts and Dollies	Forceful Exertion	Recommended	Yes
Comments: The use of material handling equipment (i.e., carts and dollies) is recommended to minimize ergonomic hazard. OPNAV M-5100.23 stipulates an Ergonomics Program is the Command's responsibility.			
Lift Assist Devices	Forceful Exertion	Recommended	Yes
Comments: The use of lift assist devices (i.e., hoists, lift tables, etc.) is recommended to minimize ergonomic hazard. OPNAV M-5100.23 stipulates an Ergonomics Program is the Command's responsibility.			

Administrative

Control Description	Hazards Controlled	Control Use	Adequate
Natural Dilution	DIESEL FUEL; ETHYLENE GLYCOL; GASOLINE; PETROLEUM DISTILLATES	Recommended	Yes
Comments: Vehicle/equipment maintenance is conducted in a large vehicle maintenance bay(s) with cross ventilation (when the bay doors or open), natural dilution is recommended to minimize potential airborne exposures to the constituents of the lubricants, oils, coolants, etc. used during maintenance.			
Proper Lifting Technique (2-person lift)	Forceful Exertion	Recommended	Yes
Comments: A two-person lift is recommended for items weighing 35 pounds or more. This weight limit may be decreased based on required posture, height of lift, and other factors. The NIOSH Lifting Equation or ACGIH TLVs for Lifting Tasks should be consulted in those cases. OPNAV M-5100.23 stipulates an Ergonomics Program is the Command's responsibility.			
Work/Rest Cycle	HEAT STRESS	Recommended	Yes
Comments: Adhering to a work/rest cycle, based on WBGT Flag conditions and Navy policy, that allows for personnel to take breaks in air-conditioned spaces is adequate to minimize the potential for heat stress issues.			

PPE

Control Description	Hazards Controlled	Control Use	Adequate
Suitable Protective Eyewear	DIESEL FUEL; ETHYLENE GLYCOL; GASOLINE; PETROLEUM DISTILLATES	Recommended	Yes
Comments: Suitable protective eyewear is recommended to be worn whenever conducting vehicle/equipment maintenance to minimize ocular exposure to the constituents of the fuels, lubricants, oils, coolants, etc. used during maintenance.			
Suitable Protective Gloves	DIESEL FUEL; ETHYLENE GLYCOL; GASOLINE; PETROLEUM DISTILLATES	Recommended	Yes
Comments: Suitable protective gloves are recommended to be worn whenever conducting vehicle/equipment maintenance to minimize dermal exposure to the constituents of the fuels, lubricants, oils, coolants, etc. used during maintenance.			

Exposure Assessment

Process Name	Hazard Name	OEL	Exposure Level	Acceptable	Need More Data
Vehicle Maintenance/Repair	DIESEL FUEL Inhalation (Skin)	100 mg/m3 8 hr TWA ACGIH Inhalable		Yes	No
SEG: LSD - Non-Tactical Vehicle Branch Rationale: Potential for airborne concentrations greater than the applicable Occupational Exposure Limit (OEL) is not anticipated based on natural dilution. The use of PPE provides adequate protection from skin and eye contact.					
Vehicle Maintenance/Repair	ETHYLENE GLYCOL Inhalation	10 mg/m3 15 min STEL ACGIH Inhalable		Yes	No
SEG: LSD - Non-Tactical Vehicle Branch Rationale: Potential for airborne concentrations greater than the applicable Occupational Exposure Limit (OEL) is not anticipated based on natural dilution. The use of PPE provides adequate protection from skin and eye contact.					

Vehicle Maintenance/Repair	GASOLINE Inhalation (Carcinogen) (Reproductive)	890 mg/m3 8 hr TWA ACGIH		Yes	No
SEG: LSD - Non-Tactical Vehicle Branch Rationale: Potential for airborne concentrations greater than the applicable Occupational Exposure Limit (OEL) is not anticipated based on natural dilution. The use of PPE provides adequate protection from skin and eye contact.					
Vehicle Maintenance/Repair	HEAT STRESS			Yes	No
SEG: LSD - Non-Tactical Vehicle Branch Rationale: The potential for heat stress occurring while cleaning engines is minimized based adhering to proper hydration standards and rest breaks that allow personnel to rest in air-conditioned buildings.					
Vehicle Maintenance/Repair	PETROLEUM DISTILLATES Inhalation	2000 mg/m3 8 hr TWA OSHA		Yes	No
SEG: LSD - Non-Tactical Vehicle Branch Rationale: Potential for airborne concentrations greater than the applicable Occupational Exposure Limit (OEL) is not anticipated based on natural dilution. The use of PPE provides adequate protection from skin and eye contact.					

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.			

PPE

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: LSD - Non-Tactical Vehicle Branch 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: LSD - Non-Tactical Vehicle Branch 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: LSD - Non-Tactical Vehicle Branch 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: LSD - Non-Tactical Vehicle Branch 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: LSD - Non-Tactical Vehicle Branch 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.

CARBON BLACK (OSHA/NIOSH (Ca)- Carcinogen)

GASOLINE (OSHA/NIOSH (Ca)- Carcinogen)

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

PERCHLOROETHYLENE (OSHA/NIOSH (Ca)- 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.

- GASOLINE
- LEAD
- NOISE
- PERCHLOROETHYLENE
- TOLUENE
- XYLENE

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

- NATURAL RUBBER LATEX

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

- NATURAL RUBBER LATEX

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.

- DIESEL FUEL
- NATURAL RUBBER LATEX

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
- TOLUENE
- XYLENE

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
Noise Hazardous Operations	LSD - Non-Tactical Vehicle Branch	Audiometric Testing	30
Weapons Qualification	LSD - Non-Tactical Vehicle Branch	Audiometric Testing	6

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.

Entry ID	Process Name	Hazard Name	Sampling Task Type	Projected Due Date	Frequency
2176811	Noise Hazardous Operations	NOISE	Noise Dosimetry	06/30/2025	One Time
2176814	Noise Hazardous Operations	NOISE	Noise Sound Level/ Octave Band/ Audiometric Booth	06/30/2025	One Time

**NOISE SURVEY WITH HEARING PROTECTION REQUIREMENTS
AND PERSONAL NOISE SAMPLING RESULTS SUMMARY
MARINE CORPS LOGISTICS BASE ALBANY
LOGISTICS SUPPORT DIVISION (LSD)
ALBANY, GA
REPORT NUMBER: AL23005**

Ref: (a) OPNAV M-5100.23 of 05 Jun 2020, *Navy Safety and Occupational Health Manual*
 (b) DoD Instruction 6055.12, *Hearing Conservation Program*, 14 August 2019
 (c) Marine Corps Hearing Conservation Program, MCO 6260.3A, 26 Sept 2016.

1. The following table identifies spaces, work tasks and equipment that require the use of hearing protection. These measurements were taken at the Patrol Squadron Three Zero (VP-30) during the current or previous industrial hygiene (IH) surveys. All personnel working in the area or performing the identified tasks that are exposed to sound pressure (noise) levels at or above **85 dBA** or **140 dBP** must use single hearing protection. Personnel exposed to sound pressure (noise) levels at or above **104 dBA** or **165 dBP** require the use of double hearing protection, as indicated by the word “Double” in the “Level of Hearing Protection Required” column. The hearing protective devices used must be capable of attenuating worker noise exposure below an 8-hour Time-Weighted Average of 85 dBA.

IDENTIFIED NOISE HAZARD AREA, OPERATIONS AND EQUIPMENT						
DATE SAMPLE #	RESPONSIBLE WORKCENTER	SPACE	WORK TASK AND/OR CONDITIONS	MEASURED SOUND PRESSURE LEVELS (dBA)	NOISE RADIUS (FT)	HEARING PROTECTION REQUIRED
NA*	LSD/Non-Tactical Vehicle Branch	Vehicle Maintenance	Milwaukee 9-inch grinder	100	10	Single
			Metabo 4.5-inch electric cutting tool	99.5	10	Single
			Milwaukee chop saw	101.3	12	Single
			Baldor grinder	98	8	Single
			Jet drill press	75	n/a	None
			Milwaukee band saw	93-97	6	Single
			Pneumatic impact tool	97	6	Single
			Die grinder	100	10	Single
			Air wrench	92-95	6	Single
			Akita cleaning system model 530	91	5	Single
	Tire repair/rim clamp	90-91	5	Single		
LSD/Garrison Supply Branch	Warehouse	Doosan forklift	86.8	4	Single	

*NA – Sample date and sample number unavailable

2. The personal sampling results listed below indicated personnel have had exposures that exceeded the DoD OEL or 85 dBA. Personnel should remain in the command's Hearing Conservation Program.

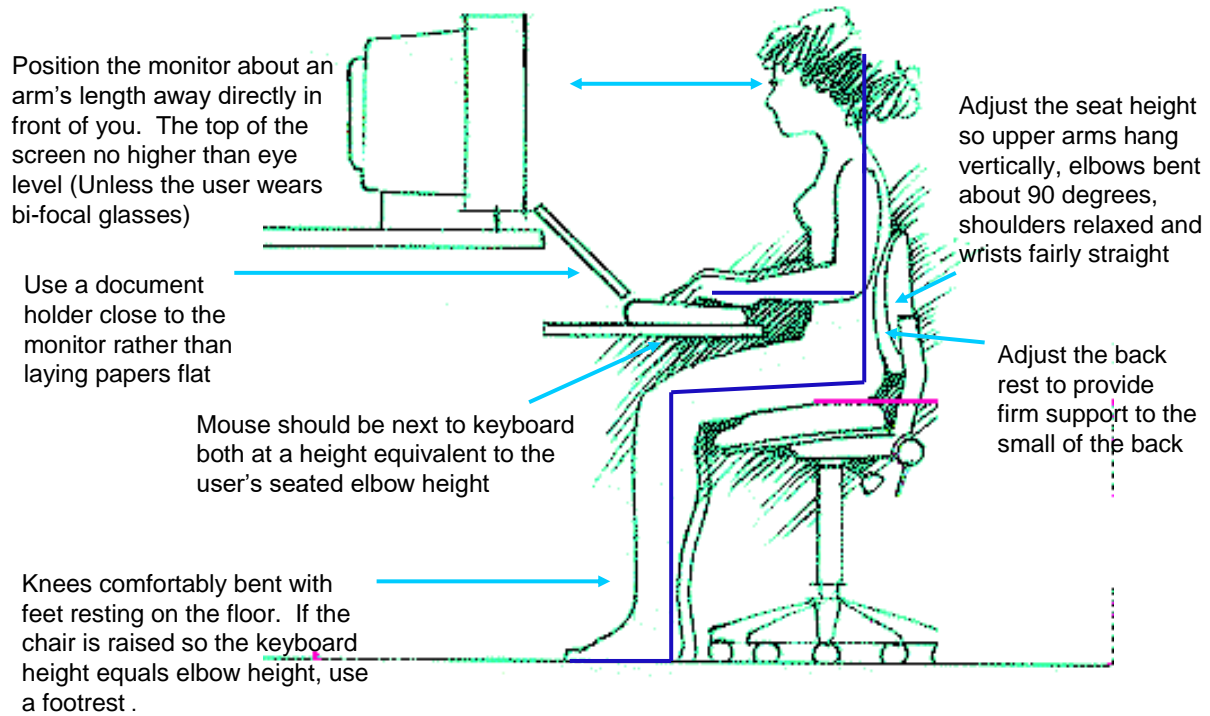
LOGISTICS SUPPORT DIVISION (LSD) PERSONNEL NOISE SAMPLING RESULTS					
DATE SAMPLE #	WORK CENTER	ACTIVITY	EXPOSURE LIMIT	MEASURED TWA EXPOSURE	RESULTS
20 JAN 15 ALBND15020	Non-Tactical Vehicle Branch	Vehicle Maintenance/Repair	85	86.5	Above DoD OEL
05 JAN 17 ALBND17004	Non-Tactical Vehicle Branch	Tire Repair	85	90.7	Above DoD OEL
05 JAN 17 ALBND17005	Non-Tactical Vehicle Branch	Vehicle Maintenance/Repair	85	76.7	Below DoD OEL
05 JAN 17 ALBND17001	Non-Tactical Vehicle Branch	Vehicle Maintenance/Repair	85	84.7	Below DoD OEL
29 MAR 17 ALBND17019	Non-Tactical Vehicle Branch	Vehicle Operation	85	87.4	Above DoD OEL
09 JAN 18 ALBND18019	Non-Tactical Vehicle Branch	Vehicle Maintenance/Repair	85	79.1	Below DoD OEL
09 JAN 18 ALBND18020	Non-Tactical Vehicle Branch	Vehicle Maintenance/Repair	85	77.4	Below DoD OEL
09 JAN 18 ALBND18021	Non-Tactical Vehicle Branch	Vehicle Maintenance/Repair	85	77.4	Below DoD OEL
09 JAN 18 ALBND18022	Non-Tactical Vehicle Branch	Vehicle Maintenance/Repair	85	74.5	Below DoD OEL
09 JAN 18 ALBND18027	Non-Tactical Vehicle Branch	Tire Repair	85	82.7	Below DoD OEL

3. At the discretion of Industrial Hygiene, additional noise measurements (sound level surveys) may be obtained in work centers or noise dosimetry (personal monitoring on individuals) performed to resolve compliance issues such as the posting of hazardous noise areas, the adequacy of hearing protection devices already in use, or implementing administrative controls to bring the effective exposure to less than the DoD OEL.

4. The hearing protection devices currently in use, 3M Classic Earplugs Uncorded (NRR 29 dB), 3M Ultrafit Earplugs (NRR 25 dB), Tasco Tri-Fit silicone earplugs (NRR 25 dB), Howard Leight Thunder 29 ear muffs (NRR 29 dB), and 3M Peltor Optime 95 ear muffs (NRR 21 dB), are capable of attenuating worker noise exposure below the OEL, **EXCEPT** during weapons qualification. It is recommended that the Command re-emphasize the need for wearing appropriate hearing protection during weapon qualification and continued enrollment in the command Hearing Conservation Program (per reference (c)) should continue. Should tasks change such that worker noise exposures are affected, notify Industrial Hygiene so that another assessment can be conducted.

5. The original sample results discussed in this attachment are on file with the Industrial Hygiene office. The workers have been notified of their sample results and the results have been recorded in their individual medical records. At this time there are no additional recommendations to be made.

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!!!