

DEPARTMENT OF THE NAVY

NAVY MEDICINE READINESS AND TRAINING COMMAND  
2080 CHILD STREET  
JACKSONVILLE, FL 32214-5000

IN REPLY REFER TO:

6200.2  
Ser 06IHZZ/0537  
11 February 2022

From: Commanding Officer, Navy Medicine Readiness and Training Command Jacksonville  
To: Director, Marine Corps Community Services Division, MCLB, Albany, GA


Subj: SHOP SPECIFIC SUPPLEMENTAL PERIODIC INDUSTRIAL HYGIENE SURVEY  
OF THE MARINE CORPS COMMUNITY SERVICES DIVISION

Ref: (a) OPNAVINST 5100.23H of 05 Jun 2020, *Navy Safety and Occupational Health Program*  
(b) OPNAV M-5100.23 of 05 Jun 2020, *Navy Safety and Occupational Health Manual*

Encl: (1) Executive Summary  
(2) Industrial Hygiene Survey Report (AL22004)

1. A Shop Specific Supplemental Periodic Industrial Hygiene of Priority 2 workcenters of the Marine Corps Community Services Division was conducted on 18 & 25 January 2022 as required by reference (a). Enclosures (1) and (2) are provided for your information.

2. Point of contact is Bryan S. Arwood of Naval Medicine Readiness and Training Unit (NMR&TU) Albany, Industrial Hygiene Division, at 229-639-7846 or email [bryan.s.arwood.civ@mail.mil](mailto:bryan.s.arwood.civ@mail.mil).



G. A. MOELLER  
By direction

Copy to:  
MCLBA Risk Management Division  
Occupational Health, NMR&TU Albany

## EXECUTIVE SUMMARY

A Shop Specific Supplemental Periodic Industrial Hygiene Survey (SPIH) of the Priority 2 workcenters of Marine Corps Community Services (MCCS) was conducted 18 & 25 January 2022 by Bryan S. Arwood, Industrial Hygienist, Navy Medicine Readiness and Training Unit Albany. This survey was limited to Priority 2 workcenters, which due to the nature of the work conducted and/or the higher potential for exposures to chemical and/or physical hazards, are required to be surveyed at a higher frequency than that of the Periodic Industrial Hygiene (PIH) survey. This SPIH survey report is intended to augment your existing PIH Survey report (AL20003) and alters the due date of the next PIH survey, which is tentatively scheduled for January 2023. No formal response to Industrial Hygiene is needed, although the MCCS Risk Management Office may specify recommendations made in this report as items for mandatory corrective action. For hazard communication/education purposes, it is recommended that shop personnel be made aware of information provided in this report. Following is a summary of major findings and recommendations. Detailed findings, observations and recommendations are provided in enclosure (2) and its associated attachments.

**Item: *Hazard Assessments.*** Since the previous industrial hygiene (IH) survey in February 2020, there have been several changes to the MCCS organization. The MCCS bowling alley has ceased operation—and is currently underway to serve as the new MCCS General Maintenance office, additionally the MCCS Movie Theatre is an asset under the purview of the installation. Moreover Live Oak Lodge is now under the purview of MCCS, however this was recently covered under last year's Installation and Environmental industrial hygiene survey. This current 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 Bryan S. Arwood of Navy Medicine Readiness and Training Unit (NMRTU) Albany, Industrial Hygiene Division, at 229-639-7846 or email [bryan.s.arwood.civ@mail.mil](mailto:bryan.s.arwood.civ@mail.mil).

**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.

Enclosure (1)

**SHOP SPECIFIC SUPPLEMENTAL PERIODIC INDUSTRIAL HYGIENE SURVEY  
PRIORITY 2 WORKCENTERS  
MARINE CORPS COMMUNITY SERVICES DIVISION  
MARINE CORP LOGISTICS BASE ALBANY  
REPORT NUMBER: AL22004**

Ref: (a) OPNAV M-5100.23 of 05 Jun 2020, *Navy Safety and Occupational Health Manual*  
(b) NAVMC 5100.8, *Marine Corps Occupational Safety and Health (OSH) Program Manual*  
(c) Navy and Marine Corps Public Health Center (NMCPHC) Industrial Hygiene Field Operations Manual (IHFOM)

Att: (1) Shop Specific Supplemental Periodic Industrial Hygiene Survey: Shop Assessments  
(2) Neutral Posture for Computer Use/Computer Breaks  
(3) Customer Satisfaction Survey

**1. Introduction.** Per reference (a) through (c), a Shop Specific Supplemental Periodic Industrial Hygiene Survey of the Priority 2 workcenters of Marine Corps Community Services Division was conducted on 18 and 25 January 2022 by Bryan S. Arwood of the Navy Medicine Readiness and Training Unit (NMRTU) Albany, Industrial Hygiene Division. This survey was limited to Priority 2 workcenters, which due to the nature of the work conducted and/or the higher potential for exposures to chemical and/or physical hazards, are required to be surveyed at a higher frequency than that of the Periodic Industrial Hygiene (PIH) survey. The purpose of this survey was to evaluate the occupational hazards present and controls methods utilized within the aforementioned locations. 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. Reference (b) requires shops with a higher hazard priority be surveyed more frequently. This report fulfills that requirement. Only the program summaries from the PIH which required updating are included. The updated Periodic Industrial Hygiene Survey: Shop Assessments, medical surveillance recommendations and workplace monitoring plans for surveyed workcenters are provided in attachment (1). Neutral Posture for Computer Use/Computer Breaks, attachment (2), can be used for training purposes. Attachment (3) is a Customer Satisfaction Survey, so that you may critique the services provided.

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

Enclosure (2)

**4. Re-evaluation Schedule and Changes in the Workplace.** Please retain this report on file and post a copy in a common work area for personnel to review. IH surveys had historically been accomplished with an established survey frequency based on the nature of operations at the Activity/Command in accordance with reference (a). Survey periodicity is scheduled at the command or shop level in accordance with reference (b). This SPIH alters the date of the next PIH survey of the Marine Corps Community Services Division, which is tentatively scheduled for February 2023.

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

**TABLE OF CONTENTS**  
**SHOP SPECIFIC SUPPLEMENTAL PERIODIC INDUSTRIAL HYGIENE SURVEY**  
**WORKCENTER SPECIFIC EVALUTATIONS FOR**  
**MARINE CORPS COMMUNITY SERVICES DIVISION**  
**MARINE CORPS LOGISTICS BASE ALBANY, GA**

<b>WORK CENTERS</b>	<b>Page</b>
MCCS SEMPER FIT-AUTO SKILLS	1
MCCS CHILD DEVELOPMENT CENTER (CDC)	7
MCCS SEMPER FIT-GYMS AND OUTDOOR ADVENTURE	13
MCCS FOOD AND HOSPITALITY	19
MCCS GENERAL SUPPORT-MAINTENANCE	27

**Periodic Industrial Hygiene Survey: Shop Assessment**

v1.0

**Survey Date:** 18 Jan 2022**Shop Priority:** Medium**Command: N67008 /****Shop: MCCS Semper Fit-Auto Skills**

Location: Building 5591

**Industrial Hygienist:** Arwood, Bryan  
bryan.s.arwood.civ@mail.mil**Supervisor:** Madding, Rex  
maddingr@usmc-mccs.org**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**

Employees of this shop operate an auto repair garage on a fee-for-service basis as well as for base personnel allowing them to make repairs on their own personal automobiles. Employees check out tools, monitor safety, and provide basic instructive assistance to their customers on an as needed/occasional basis. They do wear hearing protection when noise producing equipment is in operation. Personnel do not operate within the paint booth, this is only for customer use.

**3****2. Observations and Notes**

02/07/2022

Abbreviations: ADM – Administrative, PPE- Personal Protective Equipment, ISO – Isolation, DV –Dilution Ventilation, ENG – Engineering Controls, LV – Local Ventilation  
 Work-related musculoskeletal disorders (WMSD) risk factors which apply to all administration spaces in both work centers: Personnel should ensure that all workstations are set up per attachment (2) of the periodic industrial hygiene survey to help prevent WMSD issues from occurring. Gel pads or wrist rests should be employed in front of the keyboards to help maintain a neutral wrist and keep the wrists off of hard edges of the desk. As chairs are replaced, consideration should be given to purchasing adjustable ergonomic chairs.

**3. List of Processes**

Process Name	# of Process Personnel
Abrasive blasting	3
Car Repair/Maintenance	3
MIG Welding	3
Parts washing/degreasing	3
Shop Clean-Up	3

## 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.

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 shoes/boots, fall protection, safety vests, etc.) may be required for personnel. 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.

In the Control Use column, the controls marked as Required are the minimum deemed necessary to protect workers based on the exposure assessment. Controls marked as Recommended are considered best practice to further reduce exposures and those listed as Elective are strictly voluntary.

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.

<b>Process: Abrasive blasting</b>	
Frequency: Special Occasions	Duration: 0-15 minutes
Description: Personnel have a glove box on hand to use as needed to clean parts. Glass beads are used as the media. Blast media is changed out via installation environmental services.	

### PPE

Control Description	Hazards Controlled	Control Use	Adequate
Earplug	NOISE	Required	Yes
Comments: Single hearing protection is required for noise levels at or above 85 dBA. Double hearing protection is required for noise levels at or above 104 dBA.			

### Process: Car Repair/Maintenance

Frequency: Special Occasions	Duration: 2-4 hours
Description: Employees can instruct and assist customers with repairs. Services provided can include helping customers with servicing cooling systems and replacing brakes. Various pneumatic tools used by shop patrons.	
Heavy Lifting is an NMCPHC recognized reproductive hazard.	
WMSD RISK FACTORS: No ergonomic-related injuries/ problems were reported during the survey walkthrough. Any ergonomic related injury should be reported to the command safety representative.	

### Engineering

Control Description	Hazards Controlled	Control Use	Adequate
Hood/Booth - Paint Booth	PETROLEUM DISTILLATES	Recommended	Yes

Comments: To control hazardous vapors from customer painting.			
Hood/Booth - Vehicle Exhaust #1	CARBON MONOXIDE; DIESEL EXHAUST	Recommended	Yes
Comments: To control inhalation hazards from exhaust.			
Hood/Booth - Vehicle Exhaust #2	CARBON MONOXIDE; DIESEL EXHAUST	Recommended	Yes
Comments: To control inhalation hazards from exhaust.			
Hood/Booth - Vehicle Exhaust #3	CARBON MONOXIDE; DIESEL EXHAUST	Recommended	Yes
Comments: To control inhalation hazards from exhaust.			
Hood/Booth - Vehicle Exhaust #4	CARBON MONOXIDE; DIESEL EXHAUST	Recommended	Yes
Comments: To control inhalation hazards from exhaust.			
Hood/Booth - Vehicle Exhaust #5	CARBON MONOXIDE; DIESEL EXHAUST	Recommended	Yes
Comments: To control inhalation hazards from exhaust.			

**Administrative**

Control Description	Hazards Controlled	Control Use	Adequate
Stretch Breaks	Forceful Exertion	Recommended	Yes
Comments: Personnel should take periodic stretch breaks to reduce fatigue and injury. OPNAV M-5100.23 stipulates an Ergonomics Program is the Command's responsibility.			

**PPE**

Control Description	Hazards Controlled	Control Use	Adequate
Earplug	NOISE	Required	Yes
Comments: Single hearing protection is required for noise levels at or above 85 dBA. Double hearing protection is required for noise levels at or above 104 dBA.			
Nitrile Gloves	PETROLEUM DISTILLATES	Recommended	Yes
Comments: To prevent skin contact hazards.			
Splash Goggles	PETROLEUM DISTILLATES	Recommended	Yes
Comments: To control eye contact to hazards.			

**Exposure Assessment**

Process Name	Hazard Name	OEL	Exposure Level	Acceptable	Need More Data
Car Repair/Maintenance	NOISE (Reproductive)	85 dBA 8 hr TWA DoD	85.153 dBA	No	No
SEG: MCCS Semper Fit-Auto Skills Rationale: The 95% statistical analysis indicates that exposures are above the 85 criterion level. However; the use of hearing protection should adequately reduce noise exposure to below 85 db.					
Car Repair/Maintenance	CARBON MONOXIDE Inhalation (Reproductive) (Ototoxin)	55 mg/m3 8 hr TWA OSHA		Yes	No



SEG: MCCS Semper Fit-Auto Skills

Rationale: Based upon duration/frequency of process performance and that adequate ventilation is available, the inhalation health risk is low and acceptable. ACGIH 8 hr TWA (CARBON MONOXIDE) 29.0 mg/m3.

Car Repair/Maintenance	DIESEL EXHAUST Inhalation (Carcinogen)			Yes	No
------------------------	--	--	--	-----	----

SEG: MCCS Semper Fit-Auto Skills

Rationale: Based upon duration/frequency of process performance and that adequate ventilation is available, the inhalation health risk is low and acceptable.

Car Repair/Maintenance	PETROLEUM DISTILLATES Skin and/or Eye Contact			Yes	No
------------------------	--	--	--	-----	----

SEG: MCCS Semper Fit-Auto Skills

Rationale: Based on frequency of duration and existing controls, hazard is low and acceptable. Personnel are adequately protected from any potential exposure.

**Process: MIG Welding**

Frequency: Special Occasions      Duration: 0-15 minutes

Description: Personnel can conduct welding operations. MIG Welding is conducted on ferrous steel, stainless steel, and/or aluminum. ER70S-6 mild steel welding wire (iron and manganese) is used. Welding is conducted in a large open bay with exterior airflow through bay door opening. Shop is not equipped with specific ventilation for this task.

**Administrative**

Control Description	Hazards Controlled	Control Use	Adequate
Natural Dilution	ALUMINUM; IRON	Recommended	Yes
Comments: Periodic welding is conducted outside whenever possible and with bay doors open to control metal fumes.			

**PPE**

Control Description	Hazards Controlled	Control Use	Adequate
Welding Gloves	ULTRAVIOLET RADIATION	Recommended	Yes
Comments: Used to mitigate UV exposure.			
Welding Hood	ULTRAVIOLET RADIATION	Recommended	Yes
Comments: Used to mitigate UV exposure.			

**Exposure Assessment**

Process Name	Hazard Name	OEL	Exposure Level	Acceptable	Need More Data
MIG Welding	ALUMINUM Inhalation			Yes	No
SEG: MCCS Semper Fit-Auto Skills Rationale: Based upon duration/frequency of the process and personnel performing the process in a well-ventilated area, the inhalation health risk is low and acceptable.					
MIG Welding	IRON Inhalation	.1 mg/m3 8 hr PEL OSHA		Yes	No

SEG: MCCS Semper Fit-Auto Skills

Rationale: Based upon duration/frequency of the process and personnel performing the process in a well-ventilated area, the inhalation health risk is low and acceptable.

MIG Welding	MANGANESE Inhalation	0.1 mg/m3 8 hr TWA ACGIH Inhalable		Yes	No
-------------	----------------------	---	--	-----	----

SEG: MCCS Semper Fit-Auto Skills

Rationale: Based upon duration/frequency of the process and personnel performing the process in a well-ventilated area, the inhalation health risk is low and acceptable.

MIG Welding	ULTRAVIOLET RADIATION			Yes	No
-------------	-----------------------	--	--	-----	----

SEG: MCCS Semper Fit-Auto Skills

Rationale: Personnel wear welding PPE during this process which minimizes the health risks associated with ultraviolet radiation. Exposure is acceptable.

**Process: Parts washing/degreasing**

Frequency: Special Occasions      Duration: 0-15 minutes

Description: There is a Safety Kleen parts cleaner to manually clean parts and an automatic parts washer that uses Zep formula 15282.

**PPE**

Control Description	Hazards Controlled	Control Use	Adequate
Nitrile Gloves	PETROLEUM DISTILLATES	Recommended	Yes
Comments: To control skin contact hazards.			
Splash Goggles	PETROLEUM DISTILLATES	Recommended	Yes
Comments: To control eye contact to hazards.			

**Exposure Assessment**

Process Name	Hazard Name	OEL	Exposure Level	Acceptable	Need More Data
Parts washing/degreasing	PETROLEUM DISTILLATES Skin and/or Eye Contact			Yes	No

SEG: MCCS Semper Fit-Auto Skills

Rationale: Based on frequency of duration and existing controls, hazard is low and acceptable. Personnel are adequately protected from any potential exposure.

**Process: Shop Clean-Up**

Frequency: Daily      Duration: 0-15 minutes

Description: Personnel use degreaser diluted with water to mop the floors.

**Administrative**

Control Description	Hazards Controlled	Control Use	Adequate
Natural Dilution	2-BUTOXYETHANOL	Recommended	Yes
Comments: Bay doors are opened to evacuate degreasing vapor.			

**Exposure Assessment**

Process Name	Hazard Name	OEL	Exposure Level	Acceptable	Need More Data
Shop Clean-Up	2-BUTOXYETHANOL Skin and/or Eye Contact (Skin)			Yes	No
SEG: MCCS Semper Fit-Auto Skills Rationale: Based on amount of chemical used, frequency of duration and existing controls, hazard is low and acceptable. Personnel are adequately protected from any potential exposure.					

**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)

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

NOISE

Sensitizer: A sensitizer is a hazard with the potential to produce dermal and/or respiratory health effects similar to an allergic reaction or asthma. Worker exposures to sensitizing hazards may evoke severe respiratory or dermal reactions.

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.

2-BUTOXYETHANOL

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

**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 the possibility of 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.

SEG Name	Process Name	Med Surv Program	# Process Personnel
MCCS Semper Fit-Auto Skills	Car Repair/Maintenance	Audiometric Testing	3

## 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.

Entry ID	Vent Task Description	Location Name	Projected Due Date	Frequency
1736019	MCCS Auto Skills-Vehicle Exhaust	Marine Corps Logistics Base Albany (MCLB)	2/28/2023	Yearly
1898604	MCCS Auto Skills-Paint Booth	Marine Corps Logistics Base Albany (MCLB)	2/28/2023	Yearly

**Periodic Industrial Hygiene Survey: Shop Assessment**

v1.0

**Survey Date:** 18 Jan 2022**Shop Priority:** Medium**Command: N67008 /****Shop: MCCS Child Development Center (CDC)**

Location: Building 7600

**Industrial Hygienist:** Arwood, Bryan  
bryan.s.arwood.civ@mail.mil**Supervisor:** Bush, Kia  
bushk@usmc-mccs.org**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**

The Child Development Center employees care for dependent children of base personnel during the daytime hours. They watch the children play, organize learning activities, cook meals, clean the facility, and carry out administrative tasks.

**28****2. Observations and Notes**

02/04/2022

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

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

**3. List of Processes**

Process Name	# of Process Personnel
Administrative duties	3
Childcare operations	23
First Aid	7
General cleaning/Sanitizing	19
Kitchen Cooking/Food Preparation	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.

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 shoes/boots, fall protection, safety vests, etc.) may be required for personnel. 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.

In the Control Use column, the controls marked as Required are the minimum deemed necessary to protect workers based on the exposure assessment. Controls marked as Recommended are considered best practice to further reduce exposures and those listed as Elective are strictly voluntary.

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: Administrative duties

Frequency: Daily      Duration: 4-6 hours

Description: Personnel stand for long periods of time while serving as the cashiers and wait staff. Personnel are also responsible for busing tables and cleaning various surfaces.

Prolonged sitting/standing is a NMCPHC recognized developmental/reproductive hazard.

WMSD RISK FACTORS: No ergonomic-related injuries/ problems were reported during the survey walkthrough. Any ergonomic related injury should be reported to the command safety representative.

#### Administrative

Control Description	Hazards Controlled	Control Use	Adequate
Stretch Breaks	Static Posture	Recommended	Yes
Comments: Personnel should take breaks throughout the work day to limit static posture. OPNAV M-5100.23 stipulates an Ergonomics Program is the Command's responsibility.			

### Process: Childcare operations

Frequency: Daily      Duration: 6-8 hours

Description: Personnel are exposed to noises inherent to childcare. Personnel are responsible for caring for children; this can include exposure to bodily fluids and blood from dirty diapers, bloody noses and cleaning up after sick children. Personnel may stand for long periods of time and lift children repeatedly throughout the day.

Heavy Lifting/prolonged standing are NMCPHC recognized reproductive hazards.

WMSD RISK FACTORS: No ergonomic-related injuries/ problems were reported during the survey walkthrough. Any ergonomic related injury should be reported to the command safety representative.

#### Engineering

Control Description	Hazards Controlled	Control Use	Adequate
---------------------	--------------------	-------------	----------

Acoustic Paneling	NOISE	Recommended	Yes
Comments: Acoustic paneling can attenuate noise providing adequate noise reduction to personnel.			

**Administrative**

Control Description	Hazards Controlled	Control Use	Adequate
Stretch Breaks	Static Posture	Recommended	Yes
Comments: Personnel should take breaks throughout the work day to limit static posture. OPNAV M-5100.23 stipulates an Ergonomics Program is the Command's responsibility.			
Universal Precautions	BLOODBORNE PATHOGENS	Recommended	Yes
Comments: Used to limit to contact with bloodborne pathogens.			

**PPE**

Control Description	Hazards Controlled	Control Use	Adequate
Nitrile Gloves	BLOODBORNE PATHOGENS	Required	Yes
Comments: Used to control exposure to bloodborne pathogens.			

**Exposure Assessment**

Process Name	Hazard Name	OEL	Exposure Level	Acceptable	Need More Data
Childcare operations	NOISE (Reproductive)	85 dBA 8 hr TWA DoD	92.417 dBA	No	No
SEG: MCCS Child Development Center (CDC) Rationale: The 95% statistical analysis indicates that exposures are above the 85 criterion level.					
Childcare operations	BLOODBORNE PATHOGENS Skin and/or Eye Contact			Yes	No
SEG: MCCS Child Development Center (CDC) Rationale: Staff adopt Universal Precautions and implement Bloodborne Pathogen Training. No issues reported by staff.					

**Process: First Aid**

Frequency: Daily      Duration: 4-6 hours
Description: There is one nurse on staff that can provide basic first aid care to children and administer prescribed medication.

**Administrative**

Control Description	Hazards Controlled	Control Use	Adequate
Universal Precautions	BLOODBORNE PATHOGENS	Recommended	Yes
Comments: Used to limit to contact with bloodborne pathogens.			

**PPE**

Control Description	Hazards Controlled	Control Use	Adequate
Nitrile Gloves	BLOODBORNE PATHOGENS	Required	Yes
Comments: Used to control exposure to bloodborne pathogens.			

**Exposure Assessment**

Process Name	Hazard Name	OEL	Exposure Level	Acceptable	Need More Data
First Aid	BLOODBORNE PATHOGENS Skin and/or Eye Contact			Yes	No
SEG: MCCC Child Development Center (CDC) Rationale: Staff adopt Universal Precautions and implement Bloodborne Pathogen Training. No issues reported by staff.					

**Process: General cleaning/Sanitizing**

Frequency: Daily      Duration: 1-2 hours

Description: Personnel use various cleaning products by diluting with water or spray-applying and wiping with a rag. A solution of ¾ cup bleach to a gallon of water solution is used to sanitize toys and surfaces by wiping them with a rag. Personnel wash clothes/blankets throughout the day. This includes placing soiled laundry into the washer, measuring out the bleach and laundry soap and pouring it into the washer. After clothes are washed they are placed into the dryer.

**PPE**

Control Description	Hazards Controlled	Control Use	Adequate
Nitrile Gloves	BLOODBORNE PATHOGENS; SODIUM HYPOCHLORITE	Required	Yes
Comments: Used to control exposure to bloodborne pathogens.			
Splash Goggles	SODIUM HYPOCHLORITE	Recommended	Yes
Comments: Worn to prevent eye contact with hazards.			

**Exposure Assessment**

Process Name	Hazard Name	OEL	Exposure Level	Acceptable	Need More Data
General cleaning/Sanitizing	BLOODBORNE PATHOGENS Skin and/or Eye Contact			Yes	No
SEG: MCCC Child Development Center (CDC) Rationale: Staff adopt Universal Precautions and implement Bloodborne Pathogen Training. No issues reported by staff.					
General cleaning/Sanitizing	SODIUM HYPOCHLORITE Skin and/or Eye Contact			Yes	No
SEG: MCCC Child Development Center (CDC) Rationale: PPE should adequately protect eyes and skin from contact hazards.					

**Process: Kitchen Cooking/Food Preparation**

Frequency: Daily      Duration: 4-6 hours



Description: Personnel are exposed to various types of noise while preparing food and cleaning dishes. Personnel may have to use sodium hydroxide and bleach to clean the oven and kitchen surfaces.

Personnel in the kitchen clean the stove with oven cleaner aerosol by spraying it into the stove, let set for about 10 minutes then wipe clean with a rag.

Personnel also use a closed loop dishwasher/sanitizer system and Rinse Dry. Once a month personnel will cut an opening into the 5 gallon buckets to insert the hose. Personnel stand for long periods of time and lift heavy boxes throughout the day.

Prolonged standing/Heavy Lifting is an NMCPHC recognized reproductive hazard.

WMSD RISK FACTORS: No ergonomic-related injuries/ problems were reported during the survey walkthrough. Any ergonomic related injury should be reported to the command safety representative.

## PPE

Control Description	Hazards Controlled	Control Use	Adequate
Splash Goggles	AMMONIA; SODIUM HYPOCHLORITE	Recommended	Yes
Comments: Worn to prevent eye contact with hazards.			

## Exposure Assessment

Process Name	Hazard Name	OEL	Exposure Level	Acceptable	Need More Data
Kitchen Cooking/Food Preparation	AMMONIA Skin and/or Eye Contact			Yes	No
SEG: MCCS Child Development Center (CDC) Rationale: PPE should adequately protect eyes and skin from contact hazards.					
Kitchen Cooking/Food Preparation	SODIUM HYPOCHLORITE Skin and/or Eye Contact			Yes	No
SEG: MCCS Child Development Center (CDC) Rationale: PPE should adequately protect eyes and skin from contact hazards.					

## 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.

None

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.

NOISE

Sensitizer: A sensitizer is a hazard with the potential to produce dermal and/or respiratory health effects similar to an allergic reaction or asthma. Worker exposures to sensitizing hazards may evoke severe respiratory or dermal reactions.

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.

None

## 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 the possibility of 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.

SEG Name	Process Name	Med Surv Program	# Process Personnel
MCCS Child Development Center (CDC)	Childcare operations	Audiometric Testing	23

## 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**

v1.0

**Survey Date:** 18 Jan 2022**Shop Priority:** Medium**Command: N67008 /****Shop: MCCS Semper Fit-Gyms and Outdoor Adventure**

Location: Buildings 7960 and 7531

**Industrial Hygienist:** Arwood, Bryan  
bryan.s.arwood.civ@mail.mil**Supervisor:** Stroup, James  
stroupjam@usmc-mccs.org**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**

The gymnasium and fitness center employees operate the exercise facilities that are used by base personnel. These employees check out sports equipment, perform minor repairs to the fitness equipment and keep the area maintained.

**23**

The Outdoor Adventure division oversees MWR rentals, returns, maintenance of equipment rentals, as well as front counter operations.

**2. Observations and Notes**

02/07/2022

Abbreviations: ADM – Administrative, PPE- Personal Protective Equipment, ISO – Isolation, DV –Dilution Ventilation, ENG – Engineering Controls, LV – Local Ventilation  
Work-related musculoskeletal disorders (WMSD) risk factors which apply to all administration spaces in both work centers: Personnel should ensure that all workstations are set up per attachment (2) of the periodic industrial hygiene survey to help prevent WMSD issues from occurring. Gel pads or wrist rests should be employed in front of the keyboards to help maintain a neutral wrist and keep the wrists off of hard edges of the desk. As chairs are replaced, consideration should be given to purchasing adjustable ergonomic chairs.

**3. List of Processes**

Process Name	# of Process Personnel
Cleaning Equipment	9
Equipment issue/maintenance (Outdoor Adventures)	9
Managing front counter (Gyms)	9
Material handling/forklift use (Outdoor Adventure)	7
Pool Operation (Lifeguards)	12

Professional/administrative tasks

8

#### 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.

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 shoes/boots, fall protection, safety vests, etc.) may be required for personnel. 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.

In the Control Use column, the controls marked as Required are the minimum deemed necessary to protect workers based on the exposure assessment. Controls marked as Recommended are considered best practice to further reduce exposures and those listed as Elective are strictly voluntary.

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: Cleaning Equipment

Frequency: Daily      Duration: 30-60 minutes

Description: Personnel use disinfectants to routinely clean both gym surfaces and rental equipment.

#### PPE

Control Description	Hazards Controlled	Control Use	Adequate
Nitrile Gloves	2-BUTOXYETHANOL	Recommended	Yes
Comments: Used to control skin contact hazards.			

#### Exposure Assessment

Process Name	Hazard Name	OEL	Exposure Level	Acceptable	Need More Data
Cleaning Equipment	2-BUTOXYETHANOL Skin and/or Eye Contact (Skin)			Yes	No
SEG: MCCC Semper Fit-Gyms and Outdoor Adventure Rationale: Personnel wear proper personal protective equipment; therefore, the skin & eye contact health risk is minimal					

#### Process: Equipment issue/maintenance (Outdoor Adventures)

Frequency: Daily      Duration: 8-10 hours
Description: Personnel turn on generators for a short duration to make sure they are working use the blower to clean off the blowups after use.
Heavy lifting/Forceful Exertion is a NMCPHC recognized reproductive hazard.* WMSD RISK FACTORS: No ergonomic-related injuries/ problems were reported during the survey walkthrough. Any ergonomic related injury should be reported to the command safety representative

**Engineering**

Control Description	Hazards Controlled	Control Use	Adequate
Floor Jack	PHYSICAL STRESS	Recommended	Yes
Comments: Used to control physical stress.			
Forklift	PHYSICAL STRESS	Recommended	Yes
Comments: Used to control physical stress.			
Hand Truck	PHYSICAL STRESS	Recommended	Yes
Comments: Used to control physical stress.			

**PPE**

Control Description	Hazards Controlled	Control Use	Adequate
Earplugs	NOISE	Required	Yes
Comments: Single hearing protection is required for noise levels at or above 85 dBA. Double hearing protection is required for noise levels at or above 104 dBA.			

**Exposure Assessment**

Process Name	Hazard Name	OEL	Exposure Level	Acceptable	Need More Data
Equipment issue/maintenance (Outdoor Adventures)	NOISE (Reproductive)	85 dBA 8 hr TWA DoD		Yes	No
SEG: MCCS Semper Fit-Gyms and Outdoor Adventure Rationale: Overexposure unlikely based upon type of work, however sampling should be conducted to rule out potential exposure over the DoD OEL (85dBA).					
Equipment issue/maintenance (Outdoor Adventures)	PHYSICAL STRESS			Yes	No
SEG: MCCS Semper Fit-Gyms and Outdoor Adventure Rationale: No ergonomic related injuries were reported during the industrial hygiene survey. Control measures are appropriately implemented.					

**Process: Managing front counter (Gyms)**

Frequency: Daily      Duration: 4-6 hours
Description: Personnel re-rack weights that are left out by patrons. Personnel stand for long periods of time.
Heavy lifting/Prolonged standing are a NMCPHC recognized reproductive hazard. WMSD RISK FACTORS: No ergonomic-related injuries/ problems were reported during the survey walkthrough. Any ergonomic related injury should be reported to the command safety representative

**Administrative**

Control Description	Hazards Controlled	Control Use	Adequate
Ergonomic Training-Lifting	Forceful Exertion	Recommended	Yes
Comments: Used to mitigate heavy lifting injury in the gym setting with reracking weights. 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
Managing front counter (Gyms)	NOISE (Reproductive)	85 dBA 8 hr TWA DoD		Yes	No
SEG: MCCS Semper Fit-Gyms and Outdoor Adventure Rationale: Overexposure unlikely based upon type of work, however sampling should be conducted to rule out potential exposure over the DoD OEL (85dBA).					

### Process: Material handling/forklift use (Outdoor Adventure)

Frequency: Special Occasions      Duration: 0-15 minutes

Description: Personnel use either a gas or electric forklift to move things outside and to the bay door where a walk behind electric lift is then used to move things inside the bay and onto shelves.

### Administrative

Control Description	Hazards Controlled	Control Use	Adequate
Natural Dilution	CARBON MONOXIDE	Recommended	Yes
Comments: Gas powered forklift is only operated outdoors to prevent accumulation of carbon monoxide.			

### PPE

Control Description	Hazards Controlled	Control Use	Adequate
Earplugs	NOISE	Required	Yes
Comments: Single hearing protection is required for noise levels at or above 85 dBA. Double hearing protection is required for noise levels at or above 104 dBA.			

### Exposure Assessment

Process Name	Hazard Name	OEL	Exposure Level	Acceptable	Need More Data
Material handling/forklift use (Outdoor Adventure)	CARBON MONOXIDE Inhalation (Reproductive) (Ototoxin)	55 mg/m3 8 hr TWA OSHA		Yes	No
SEG: MCCS Semper Fit-Gyms and Outdoor Adventure Rationale: Based upon duration/frequency of process performance and that adequate ventilation is available, the inhalation health risk is low and acceptable. ACGIH 8 hr TWA (CARBON MONOXIDE) 29.0 mg/m3.					
Material handling/forklift use (Outdoor Adventure)	NOISE (Reproductive)	85 dBA 8 hr TWA DoD		Yes	No
SEG: MCCS Semper Fit-Gyms and Outdoor Adventure Rationale: Overexposure unlikely based upon type of work, however sampling should be conducted to rule out potential exposure over the DoD OEL (85dBA).					

**Process: Pool Operation (Lifeguards)**

Frequency: Daily      Duration: 4-6 hours

Description: Personnel spend majority of the day outside in high UV environments.

All pool chemicals and testing is performed by I&amp;E personnel.

**Engineering**

Control Description	Hazards Controlled	Control Use	Adequate
UV Filtering Canopy	ULTRAVIOLET RADIATION	Recommended	Yes
Comments: Used to mitigate UV exposure from sun exposure.			

**Administrative**

Control Description	Hazards Controlled	Control Use	Adequate
Job Rotation	ULTRAVIOLET RADIATION	Recommended	Yes
Comments: Workers may be rotated to reduce direct exposure from UV light.			

**PPE**

Control Description	Hazards Controlled	Control Use	Adequate
Sun Block	ULTRAVIOLET RADIATION	Recommended	Yes
Comments: Used to prevent UV over exposure.			

**Exposure Assessment**

Process Name	Hazard Name	OEL	Exposure Level	Acceptable	Need More Data
Pool Operation (Lifeguards)	ULTRAVIOLET RADIATION			Yes	No

SEG: MCCS Semper Fit-Gyms and Outdoor Adventure

Rationale: Personnel utilize UV cover and sunblock, exposure is expected to be minimal.

**Process: Professional/administrative tasks**

Frequency: Daily      Duration: 2-4 hours

Description: Personnel work at desks and perform various computer operations, supervision and other clerical duties.

Prolonged sitting/standing is a NMCPHC recognized developmental/reproductive hazard.

WMSD RISK FACTORS: No ergonomic-related injuries/ problems were reported during the survey walkthrough. Any ergonomic related injury should be reported to the command safety representative.

**Administrative**

Control Description	Hazards Controlled	Control Use	Adequate
Stretch Breaks	Static Posture	Recommended	Yes
Comments: Personnel should take breaks throughout the work day to limit static posture or excessive sitting. OPNAV M-5100.23 stipulates an Ergonomics Program is the Command's responsibility.			

**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.

None

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

NOISE

Sensitizer: A sensitizer is a hazard with the potential to produce dermal and/or respiratory health effects similar to an allergic reaction or asthma. Worker exposures to sensitizing hazards may evoke severe respiratory or dermal reactions.

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.

2-BUTOXYETHANOL

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

## 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 the possibility of 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.

No Medical Surveillance Recommended

## 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
1903186	Equipment issue/maintenance (Outdoor Adventures)	NOISE	Noise Dosimetry	02/28/2023	One Time



**Periodic Industrial Hygiene Survey: Shop Assessment**

v1.0

**Survey Date:** 18 Jan 2022**Shop Priority:** Medium**Command: N67008 /****Shop: MCCS Food and Hospitality**

Location: Building 7450

**Industrial Hygienist:** Arwood, Bryan  
bryan.s.arwood.civ@mail.mil**Supervisor:** MCNAIR, DENNARRIS  
dennarris.mcnair@usmc-  
mccs.org**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**

This shop includes the restaurant and hospitality functions at Town and Country. Personnel service the 'Town & Country' restaurant and the bar and grill. The kitchen cook staff prepares food for the base restaurant which includes a buffet style food service and the grill which provides food based on an order off the menu style.

**11****2. Observations and Notes**

02/04/2022

Abbreviations: ADM – Administrative, PPE- Personal Protective Equipment, ISO – Isolation, DV –Dilution Ventilation, ENG – Engineering Controls, LV – Local Ventilation  
Work-related musculoskeletal disorders (WMSD) risk factors which apply to all administration spaces in both work centers: Personnel should ensure that all workstations are set up per attachment (2) of the periodic industrial hygiene survey to help prevent WMSD issues from occurring. Gel pads or wrist rests should be employed in front of the keyboards to help maintain a neutral wrist and keep the wrists off of hard edges of the desk. As chairs are replaced, consideration should be given to purchasing adjustable ergonomic chairs.

**3. List of Processes**

Process Name	# of Process Personnel
Kitchen Cleaning	5
Front end operations	3
Kitchen Cooking/Food Preparation	6
Professional/administrative tasks	1
Restocking	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.

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 shoes/boots, fall protection, safety vests, etc.) may be required for personnel. 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.

In the Control Use column, the controls marked as Required are the minimum deemed necessary to protect workers based on the exposure assessment. Controls marked as Recommended are considered best practice to further reduce exposures and those listed as Elective are strictly voluntary.

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: Front end operations

Frequency: Daily      Duration: 4-6 hours

Description: Personnel stand for long periods of time while serving as the cashiers and wait staff. Personnel are also responsible for busing tables and cleaning various surfaces.  
Prolonged sitting/standing is a NMCPHC recognized developmental/reproductive hazard.

WMSD RISK FACTORS: No ergonomic-related injuries/ problems were reported during the survey walkthrough. Any ergonomic related injury should be reported to the command safety representative.

#### Administrative

Control Description	Hazards Controlled	Control Use	Adequate
Stretch Breaks	Static Posture	Recommended	Yes
Comments: Used to control ergonomic stressors. OPNAV M-5100.23 stipulates an Ergonomics Program is the Command's responsibility.			

### Process: Kitchen Cleaning

Frequency: Daily      Duration: 1-2 hours

Description: Personnel use various detergents to clean surfaces inside the kitchen before and after kitchen operations.  
Prolonged sitting/standing is a NMCPHC recognized developmental/reproductive hazard.  
WMSD RISK FACTORS: No ergonomic-related injuries/ problems were reported during the survey walkthrough. Any ergonomic related injury should be reported to the command safety representative.

#### Administrative

Control Description	Hazards Controlled	Control Use	Adequate
Stretch Breaks	Static Posture	Recommended	Yes

Comments: Used to control ergonomic stressors. OPNAV M-5100.23 stipulates an Ergonomics Program is the Command's responsibility.

### PPE

Control Description	Hazards Controlled	Control Use	Adequate
Chemical Splash Goggles	AMMONIA; SODIUM HYDROXIDE; SODIUM HYPOCHLORITE	Recommended	Yes
Comments: Used to control eye contact to hazards.			
Ear Plugs	NOISE	Required	Yes
Comments: Single hearing protection is required for noise levels at or above 85 dBA. Double hearing protection is required for noise levels at or above 104 dBA.			
Nitrile Gloves	AMMONIA; SODIUM HYDROXIDE; SODIUM HYPOCHLORITE	Recommended	Yes
Comments: Worn to prevent skin contact with chemical hazards.			

### Exposure Assessment

Process Name	Hazard Name	OEL	Exposure Level	Acceptable	Need More Data
Kitchen Cleaning	NOISE (Reproductive)	85 dBA 8 hr TWA DoD	89.247 dBA	No	No
SEG: MCCS Food and Hospitality Rationale: The 95% statistical analysis indicates that exposures are above the 85 criterion level. However; the use of hearing protection should adequately reduce noise exposure to below 85 db.					
Kitchen Cleaning	AMMONIA Skin and/or Eye Contact			Yes	No
SEG: MCCS Food and Hospitality Rationale: Personnel wear proper personal protective equipment and based on methods of application and infrequent and duration of use, the skin & eye contact health risk is minimal.					
Kitchen Cleaning	SODIUM HYDROXIDE Skin and/or Eye Contact			Yes	No
SEG: MCCS Food and Hospitality Rationale: Personnel wear proper personal protective equipment and based on methods of application and duration of use, the skin & eye contact health risk is minimal.					
Kitchen Cleaning	SODIUM HYPOCHLORITE Skin and/or Eye Contact			Yes	No
SEG: MCCS Food and Hospitality Rationale: Personnel wear proper personal protective equipment and based on methods of application and duration of use, the skin & eye contact health risk is minimal.					

### Process: Kitchen Cooking/Food Preparation

Frequency: Daily      Duration: 4-6 hours

Description: Personnel stand for long periods of time and lift heavy boxes and trays throughout the day.  
Prolonged sitting/standing is a NMCPHC recognized developmental/reproductive hazard.  
WMSD RISK FACTORS: No ergonomic-related injuries/ problems were reported during the survey walkthrough. Any ergonomic related injury should be reported to the command safety representative.

### Administrative

Control Description	Hazards Controlled	Control Use	Adequate
Stretch Breaks	Static Posture	Recommended	Yes
Comments: Used to control ergonomic stressors. OPNAV M-5100.23 stipulates an Ergonomics Program is the Command's responsibility.			
Work/Rest Cycles	Static Posture	Recommended	Yes
Comments: Personnel should take breaks throughout the work day to limit static posture, excessive sitting and repetitive tasks. OPNAV M-5100.23 stipulates an Ergonomics Program is the Command's responsibility.			

**PPE**

Control Description	Hazards Controlled	Control Use	Adequate
Ear Plugs	NOISE	Required	Yes
Comments: Single hearing protection is required for noise levels at or above 85 dBA. Double hearing protection is required for noise levels at or above 104 dBA.			

**Exposure Assessment**

Process Name	Hazard Name	OEL	Exposure Level	Acceptable	Need More Data
Kitchen Cooking/Food Preparation	NOISE (Reproductive)	85 dBA 8 hr TWA DoD	89.247 dBA	No	No
SEG: MCCS Food and Hospitality Rationale: The 95% statistical analysis indicates that exposures are above the 85 criterion level. However; the use of hearing protection should adequately reduce noise exposure to below 85 db.					

**Process: Professional/administrative tasks**

Frequency: Daily      Duration: 2-4 hours

Description: Personnel perform administrative tasks at a desk for long periods of time. This includes the director, catering coordinator, catering manager, food and beverage manager and the food and beverage assistant.

Prolonged sitting/standing is a NMCPHC recognized developmental/reproductive hazard.

WMSD RISK FACTORS: No ergonomic-related injuries/ problems were reported during the survey walkthrough. Any ergonomic related injury should be reported to the command safety representative.

**Administrative**

Control Description	Hazards Controlled	Control Use	Adequate
Stretch Breaks	Static Posture	Recommended	Yes
Comments: Used to control ergonomic stressors. OPNAV M-5100.23 stipulates an Ergonomics Program is the Command's responsibility.			

**Process: Restocking**

Frequency: Daily      Duration: 30-60 minutes

Description: Unloading the truck into the freezer. This can include lifting heavy boxes. Personnel unload truck and place items in the walk-in freezer.

Heavy lifting is a recognized NMCPHC reproductive hazard.

**Administrative**

Control Description	Hazards Controlled	Control Use	Adequate
Work/Rest Cycles	Forceful Exertion	Recommended	Yes
Comments: Personnel should take breaks throughout the work day to limit static posture, excessive sitting and repetitive tasks. OPNAV M-5100.23 stipulates an Ergonomics Program is the Command's responsibility.			

**PPE**

Control Description	Hazards Controlled	Control Use	Adequate
Ear Plugs	NOISE	Required	Yes
Comments: Single hearing protection is required for noise levels at or above 85 dBA. Double hearing protection is required for noise levels at or above 104 dBA.			

**Exposure Assessment**

Process Name	Hazard Name	OEL	Exposure Level	Acceptable	Need More Data
Restocking	NOISE (Reproductive)	85 dBA 8 hr TWA DoD	89.247 dBA	<b>No</b>	No
SEG: MCCA Food and Hospitality Rationale: The 95% statistical analysis indicates that exposures are above the 85 criterion level. However; the use of hearing protection should adequately reduce noise exposure to below 85 db.					

**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.

None

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.

NOISE

Sensitizer: A sensitizer is a hazard with the potential to produce dermal and/or respiratory health effects similar to an allergic reaction or asthma. Worker exposures to sensitizing hazards may evoke severe respiratory or dermal reactions.

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.

None

**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 the possibility of 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.

SEG Name	Process Name	Med Surv Program	# Process Personnel
MCCS Food and Hospitality	Kitchen Cleaning	Audiometric Testing	5
MCCS Food and Hospitality	Kitchen Cooking/Food Preparation	Audiometric Testing	6
MCCS Food and Hospitality	Restocking	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.

No Workplace Monitoring Requested at this time.

**Periodic Industrial Hygiene Survey: Shop Assessment**

v1.0

**Survey Date:** 18 Jan 2022**Shop Priority:** Medium**Command: N67008 /****Shop: MCCS General Support-Maintenance**

Location: Building 7450

**Industrial Hygienist:** Arwood, Bryan  
bryan.s.arwood.civ@mail.mil**Supervisor:** Mccary, Alfonzia  
alfonzia.mccary@usmc-  
mccs.org**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**

This shop performs maintenance for the MCCS buildings. Maintenance personnel are responsible for the upkeep of the MCCS buildings and grounds; this can include woodworking, minor repairs and grounds maintenance. The custodian staff is responsible for the cleaning of the MCCS buildings to include the bathrooms, floors and trash.

**8****2. Observations and Notes**

02/07/2022

Abbreviations: ADM – Administrative, PPE- Personal Protective Equipment, ISO – Isolation, DV –Dilution Ventilation, ENG – Engineering Controls, LV – Local Ventilation  
Work-related musculoskeletal disorders (WMSD) risk factors which apply to all administration spaces in both work centers: Personnel should ensure that all workstations are set up per attachment (2) of the periodic industrial hygiene survey to help prevent WMSD issues from occurring. Gel pads or wrist rests should be employed in front of the keyboards to help maintain a neutral wrist and keep the wrists off of hard edges of the desk. As chairs are replaced, consideration should be given to purchasing adjustable ergonomic chairs.

**3. List of Processes**

Process Name	# of Process Personnel
Custodial cleaning	5
General facility maintenance	4
Lawn/grounds maintenance	3
Woodworking	3

**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.

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 shoes/boots, fall protection, safety vests, etc.) may be required for personnel. 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.

In the Control Use column, the controls marked as Required are the minimum deemed necessary to protect workers based on the exposure assessment. Controls marked as Recommended are considered best practice to further reduce exposures and those listed as Elective are strictly voluntary.

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.

<b>Process: Custodial cleaning</b>
Frequency: Daily      Duration: 6-8 hours
Description: Personnel clean facilities--to include vacuuming and sanitizing work spaces associated with MCCS.
WMSD RISK FACTORS: No ergonomic-related injuries/ problems were reported during the survey walkthrough. Any ergonomic related injury should be reported to the command safety representative.

#### Administrative

Control Description	Hazards Controlled	Control Use	Adequate
Stretch Breaks	Dynamic Posture	Recommended	Yes
Comments: Implemented to reduce fatigue and work related injury. OPNAV M-5100.23 stipulates an Ergonomics Program is the Command's responsibility.			

#### PPE

Control Description	Hazards Controlled	Control Use	Adequate
Earplug	NOISE	Recommended	Yes
Comments: Single hearing protection is required for noise levels at or above 85 dBA. Double hearing protection is required for noise levels at or above 104 dBA.			
Nitrile Gloves	AMMONIA; BLOODBORNE PATHOGENS; SODIUM HYPOCHLORITE	Recommended	Yes
Comments: Used to control exposure to bloodborne pathogens.			
Splash Goggles	AMMONIA; SODIUM HYPOCHLORITE	Recommended	Yes
Comments: Worn to prevent eye contact with hazards.			

#### Exposure Assessment

Process Name	Hazard Name	OEL	Exposure Level	Acceptable	Need More Data
Custodial cleaning	AMMONIA Skin and/or Eye Contact			Yes	No
SEG: MCCS General Support-Maintenance Rationale: Personnel wear proper personal protective equipment; therefore, the skin & eye contact health risk is minimal.					
Custodial cleaning	BLOODBORNE PATHOGENS Skin and/or Eye Contact			Yes	No
SEG: MCCS General Support-Maintenance Rationale: Transmission of bloodborne pathogens (BBP) is minimized by PPE use. Health risk due to potential BBP exposure negligible.					
Custodial cleaning	NOISE  (Reproductive)	85 dBA 8 hr TWA DoD		Yes	No
SEG: MCCS General Support-Maintenance Rationale: Noise levels produced from this process are not expected to be over the OEL. PPE should adequately protect personnel from over exposure to noise.					
Custodial cleaning	SODIUM HYPOCHLORITE Skin and/or Eye Contact			Yes	No
SEG: MCCS General Support-Maintenance Rationale: Personnel wear proper personal protective equipment; therefore, the skin & eye contact health risk is minimal.					

### Process: General facility maintenance

Frequency: Daily      Duration: 2-4 hours

Description: Personnel perform various repairs as needed. Usually the materials needed are purchased as needed. Repairs include clogged toilets, busted leaks (PVC repairs), lubricating hinges, etc.

#### Administrative

Control Description	Hazards Controlled	Control Use	Adequate
Stretch Breaks	Dynamic Posture	Recommended	Yes
Comments: Implemented to reduce fatigue and work related injury. OPNAV M-5100.23 stipulates an Ergonomics Program is the Command's responsibility.			

#### PPE

Control Description	Hazards Controlled	Control Use	Adequate
Earplug	NOISE	Recommended	Yes
Comments: Single hearing protection is required for noise levels at or above 85 dBA. Double hearing protection is required for noise levels at or above 104 dBA.			
Nitrile Gloves	PETROLEUM DISTILLATES	Recommended	Yes
Comments: Used to control contact hazards.			

#### Exposure Assessment

Process Name	Hazard Name	OEL	Exposure Level	Acceptable	Need More Data
--------------	-------------	-----	----------------	------------	----------------

General facility maintenance	PETROLEUM DISTILLATES Skin and/or Eye Contact			Yes	No
SEG: MCCS General Support-Maintenance Rationale: Personnel wear proper personal protective equipment; therefore, the skin & eye contact health risk is minimal.					

<b>Process: Lawn/grounds maintenance</b>					
Frequency: Monthly      Duration: 2-4 hours					
Description: Personnel use various lawn maintenance equipment to include a riding lawn mower and weed eater that can produce hazardous noise levels. Personnel perform various lawn maintenance to include the use of a riding lawn mower and weed eater. Dirt and dust are considered nuisance hazards and therefore personnel wear a N95 respirator on a voluntary basis. Personnel also replace various motor oils and fluids in the lawn equipment when needed.					

**PPE**

Control Description	Hazards Controlled	Control Use	Adequate
Earplug	NOISE	Recommended	Yes
Comments: Single hearing protection is required for noise levels at or above 85 dBA. Double hearing protection is required for noise levels at or above 104 dBA.			
Nitrile Gloves	PETROLEUM DISTILLATES	Recommended	Yes
Comments: Used to control contact hazards.			

**Exposure Assessment**

Process Name	Hazard Name	OEL	Exposure Level	Acceptable	Need More Data
Lawn/grounds maintenance	NOISE (Reproductive)	85 dBA 8 hr TWA DoD		No	Yes
SEG: MCCS General Support-Maintenance Rationale: Based upon similar processes this activity is likely to contribute to noise exposures over the DoD OEL for noise exposure (85dBA).					
Lawn/grounds maintenance	PETROLEUM DISTILLATES Skin and/or Eye Contact			Yes	No
SEG: MCCS General Support-Maintenance Rationale: Personnel wear proper personal protective equipment; therefore, the skin & eye contact health risk is minimal.					

<b>Process: Woodworking</b>					
Frequency: Special Occasions      Duration: 6-8 hours					
Description: Personnel use various pieces of power tools to include a table saw, circular saw, skill saw and jig saw. Personnel work on small scale projects ranging from steps, fence repairs, studs for walls, etc.					
WMSD RISK FACTORS: No ergonomic-related injuries/ problems were reported during the survey walkthrough. Any ergonomic related injury should be reported to the command safety representative.					

**Administrative**

Control Description	Hazards Controlled	Control Use	Adequate
Stretch Breaks	Forceful Exertion	Recommended	Yes

Comments: Implemented to reduce fatigue and work related injury. OPNAV M-5100.23 stipulates an Ergonomics Program is the Command's responsibility.

#### PPE

Control Description	Hazards Controlled	Control Use	Adequate
Earplug	NOISE	Recommended	Yes
Comments: Single hearing protection is required for noise levels at or above 85 dBA. Double hearing protection is required for noise levels at or above 104 dBA.			

#### Exposure Assessment

Process Name	Hazard Name	OEL	Exposure Level	Acceptable	Need More Data
Woodworking	NOISE (Reproductive)	85 dBA 8 hr TWA DoD		No	No
SEG: MCCS General Support-Maintenance Rationale: Based upon similar processes this activity is likely to contribute to noise exposures over the DoD OEL for noise exposure (85dBA).					

## 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.

None

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.

NOISE

Sensitizer: A sensitizer is a hazard with the potential to produce dermal and/or respiratory health effects similar to an allergic reaction or asthma. Worker exposures to sensitizing hazards may evoke severe respiratory or dermal reactions.

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.

None

## 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 the possibility of 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.

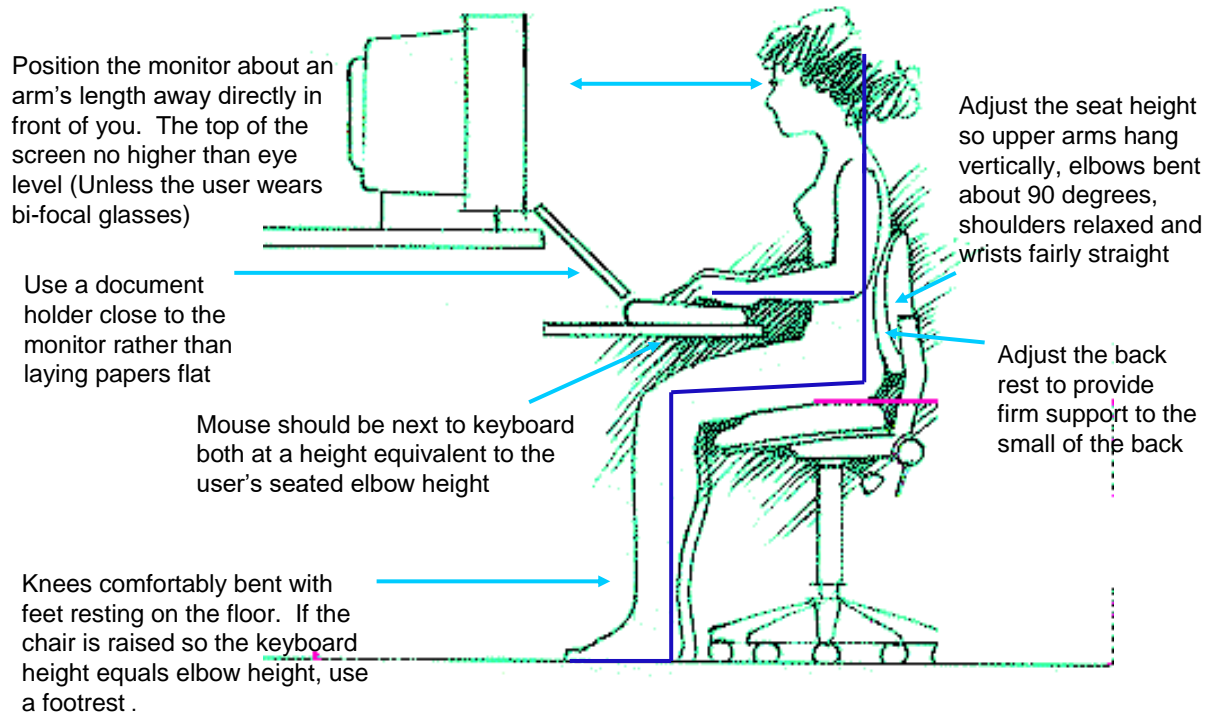
SEG Name	Process Name	Med Surv Program	# Process Personnel
MCCS General Support-Maintenance	Lawn/grounds maintenance	Audiometric Testing	3
MCCS General Support-Maintenance	Woodworking	Audiometric Testing	3

## 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
1905112	Lawn/grounds maintenance	NOISE	Noise Dosimetry	02/28/2023	One Time

# Neutral Posture for Computer Use



# TIME TO TAKE A COMPUTER BREAK

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

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

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

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

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

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

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

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

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

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

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

# CUSTOMER SATISFACTION SURVEY

Industrial Hygiene Department  
NMR&TU Albany

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:

Industrial Hygiene Department  
NMR&TU Albany  
bryan.s.arwood.civ@mail.mil