

## DEPARTMENT OF THE NAVY

NAVAL HOSPITAL 1 PINCKNEY BOULEVARD BEAUFORT, SOUTH CAROLINA 29902-6148 IN REPLY REFER TO:

> 6260 Ser 06IH/17124 18 Jan 17

From: Commanding Officer, Naval Hospital, Beaufort
To: Commanding Officer, Marine Corps Air Station, Beaufort,
SC 29904

Subj: PERIODIC INDUSTRIAL HYGIENE SURVEY OF MARINE CORPS AIR STATION, BEAUFORT, SOUTH CAROLINA

Ref: (a) OPNAVINST 5100.23G (b) MCO 5100.8F

Encl: (1) Industrial Hygiene Survey Report

1. Per references (a) and (b), a periodic Industrial Hygiene Survey was completed on 13 January 2017. The purpose of this survey was to identify and evaluate potential health hazards in the workplace and recommend appropriate controls to ensure the health and safety of personnel.

2. Enclosure (1) contains the Industrial Hygiene Survey report. The Industrial Hygiene Survey report includes an executive summary, a review of Navy Occupational Safety and Health programs, workplace evaluations, recommended medical surveillance, an evaluation of reproductive hazards and proposed workplace monitoring plan.

3. Questions concerning this report may be directed to Esmeraldo Ranches at 843 228-6198 or via email at esmeraldo.l.ranches.civ@mail.mil.

A. M. W. DEAN By direction

Copy to: Director, MCAS Safety and Standardization NHB Occupational Health

# PERIODIC INDUSTRIAL HYGIENE SURVEY

# MARINE CORPS AIR STATION (MCAS) BEAUFORT, SC

# JANUARY 2017

Survey Conducted By:	E. L. RANCHES Industrial Hygienist
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Enclosure (1)

# PERIODIC INDUSTRIAL HYGIENE SURVEY OF MCAS BEAUFORT SC JANUARY 2017

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38 39 40

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#### EXECUTIVE SUMMARY

A periodic and baseline industrial hygiene survey of Marine Corps Air Station DOEHRS Category Two work Centers was conducted on 3 through 13 January 2017 to identify significant changes in health hazards, assess health risks, and recommend controls where needed. No formal response is needed. MCAS Cat 2 shops will receive a periodic Industrial Hygiene (IH) Survey on a biennial basis based on currently identified and evaluated tasks and processes found in this report.

Contact Industrial Hygiene for any significant change in operations, workplace setting, or type or amount of chemicals used so that a thorough re-evaluation can be performed to protect worker health. Contact Industrial Hygiene to review engineering designs, standard operating procedures (SOPs), purchasing transactions, and service contracts relevant to IH or occupational health prior to construction or issuance of SOPs, purchases or contracts. Failure to consult with Industrial Hygiene can result in unnecessary operational costs and increased health and safety risks in the workplace.

The following is a summary of major findings and recommendations:

**FINDING:** All active duty personnel are in Hearing Conservation Program as per MARADMIN. Civilian personnel are designated to be enrolled in the program according to their occupational exposure to hazardous noise are not up to date on their audiograms.

**RECOMMENDATION:** Ensure all civilian and active duty workers complete all Hearing Conservation Program (HCP) requirements to include annual training and audiograms and such training is documented. **REFERENCE:** MARADMIN 010/12 dtd 06 Jan 12, MCO 6260.1E Marine Corps Hearing Conservation Program.

**FINDING:** The MCAS Explosive Ordnance Disposal; the Aircraft Recovery HAZMAT and the NREAO eye wash stations, had delinquent maintenance inspection logs. Also, in Aircraft Recovery, there is no expiration date label on the portable eye wash station to indicate when will be the next fluid replenishment (bacteriostatic solution).

**RECOMMENDATION:** Hard plumbed eyewash stations must be inspected weekly and documented on the maintenance log. Portable units with bacteriostatic solution fluid must be inspected according to manufacturer's guidance. The next maintenance inspection of the portable eyewash station should be listed on the log.

**REFERENCE:** NAVMC Directive 5100.8 MARCOR OSH Program Manual Chapter 17 Hazardous Material Control.

**FINDING:** Hazardous Communication Training in most of the shops is incomplete or partially documented. Fall Protection Training is not documented for Base Telephone Shop.

**RECOMMENDATION:** Ensure required annual safety training is conducted and documented. Contact Base Safety and NREAO training availability.

**REFERENCE:** NAVMC Directive 5100.8 MARCOR OSH Program Manual Chapter 17 Hazardous Material Control

**FINDING:** There is a sign in Provost Marshall Office weapons room entrance with instruction use respiratory protection. Respirators are not required for current work operations.

**RECOMMENDATION:** Remove the sign.

**REFERENCE:** OPNAVINST 5100.23G Chapters 15 Respiratory Protection; NAVMC Directive 5100.8 MARCOR OSH Program Manual Chapter 13 Personal Protective Equipment

**FINDING:** A worker in the Hazardous Minimization Work Center has elected voluntary respiratory use which means that respiratory protection is not required and is made available for worker comfort

**RECOMMENDATION:** Ensure that this worker has appropriate training and fit testing.

**REFERENCE:** 29 CFR 1910.134 Appendix, 5 Mandatory Information for Employees Using Respirator When Not Required Under the Standard.

**NOTICE:** At the end of this report is a Customer Satisfaction Survey through which guides our report process through customer feedback.

**RECOMMENDATION:** Please complete the Customer Satisfaction Survey and forward your comments to IH. Please distribute this survey report through all levels so that supervisors and employees are aware of its contents for work center occupational safety and health recommendations. Industrial Hygiene also has an electronic Interactive Customer Evaluation (ICE) customer service feedback link at http://ice.disa.mil/index.cfm?a=card&sp=124393&s=350&dep=\*DoD&sc=11

## PERIODIC INDUSTRIAL HYGIENE SURVEY REPORT GUIDE MARINE CORPS AIR STATION (MCAS) BEAUFORT SC JANUARY 2017

- Ref: (a) MCO 5100.8F Marine Corps Occupational Safety and Health Program Manual
  - (b) NAVHOSPBFT ltr 6260 Ser 06IH/1520210 Feb 15

1. Introduction. Per reference (a), a periodic Industrial Hygiene Survey was conducted to update information reported in reference (b), and consisted of a site visit, walk-through evaluations of all work areas, a review of the hazardous material inventory, and employee interviews as appropriate to assist in the industrial hygiene assessment.

2. Report Purpose and Use. It is recommended that this report is read by all levels of the MCAS Beaufort SC to use as information to improve the Occupational Safety and Health Program. Questions regarding findings, recommendations or evaluation should be addressed to the servicing Industrial Hygienist for this command.

3. Re-evaluation Schedule and Changes in the Workplace. Please retain this report on file. Industrial Hygiene Services will re-evaluate MCAS Beaufort, SC on a two year basis on Category 2 and every four years on Category 3 shops. However, any significant change in the type of operations performed, workplace setting, or change in the kind or amount of chemicals used will result in a need for a reassessment of the affected area. Industrial Hygiene services should be notified of such changes, per reference (a).

4. Safety and Occupational Health (SOH) Program Assessment. The following table provides a summary of SOH program evaluations as identified in reference (a) for this command:

New or Significantly Modified Work Center Operations/Processes?

□ No significant changes in operations/processes were identified this survey period.

Baseline Industrial Hygiene Survey and no changes would be identified during this survey period.

New or significantly modified work center operations/processes were found and documented during this survey period.

Work center personnel have the potential to be deployed and have been advised that operations addressed in this report are applicable to garrison/base operations only.

□ Work center personnel have the potential to be loaned to other commands and will be governed by the receiving command appropriate survey.

<u>Comments</u>: The following new or significantly modified work center operations/processes were identified this survey period:

The Station Ordnance replaces all battery operated fork lift with diesel powered units. Industrial Hygiene will discontinue ventilation surveys of the battery charging building.

In HAZMIN Center, one worker has elected to use voluntary respirator use of face filtering respirator during puncturing and disposal of aerosol paint cans in an open air work site.

Visiting Aircraft Line discontinued maintaining an eyewash station in the building. Personnel utilize the eyewash stations located in fuel distribution lines and the nearby facilities in Aircraft Rescue and Firefighting. Ensure personnel know the locations of the eye wash and shower stations.

For purposes of this survey, "*significant* changes" are defined as workplace modifications that could require a change in recommended medical surveillance enrollment, personal protective equipment or exposure control measures (ventilation, etc).

#### Medical Surveillance Program (MSP)

No MSP enrollment is required for current work center operations.

MSP has been recommended by IH.

Occupational medical exams (OME)/ job specialty exams are required by task/trade.

oxtimes No MSP enrollment recommendations/changes from the previous IH Survey.

Comments: If applicable, MSP and OME are annotated in the Shop Hazard Assessments and Medical

Surveillance Summary enclosed at the back of this report.

<u>Comments:</u> SECNAV 5100/1 (Rev.4/24/14) is to be used as the referral form for exposure based medical surveillance examinations and work qualification certifications annotated in the Medical Surveillance Summary and in Shop Work Place Hazard Assessments on this report. This form must be presented to the medical service provider (Occupational Health) and returned to the supervisor after completion of the exam. The web link for the form and Navy Safety and Supervisor's Guide to Medical Surveillance is at:

http://www.public.navy.mil/comnavsafecen/Pages/osh/MedSurv.aspx

Ensure continued participation of personnel in medical surveillance programs listed in the Summary of Medical Surveillance Program Needs. The individual shop training representatives should keep track and disseminate the updates for physical examinations, certification and audiometric testing schedules through Advanced Skills Management (ASM) (Active duty) or Enterprise Safety Management Systems (ESAMS) program (civilian).

<u>Reference(s)</u>: OPNAVINST 5100.23(series) Navy Safety and Occupational Health Program Manual; NAVMC 5100.8 Marine Corps Occupational Safety and Health Program Manual (MARCOR OSH Program Manual); NEHC-TM OM 6260 Medical Surveillance Procedures Manual and Medical Matrix (Latest Edition).

#### Respiratory Protection Program (RPP):

X □ N □ N/A: Are respirators required/used to control workplace exposures?
 Y □ N ⊠ N/A: Are humanitarian use respirators used by work center personnel?
 X □ N □ N/A: Is an up-to-date Respirator SOP available in the workplace?
 X □ N □ N/A: Is the work center/command RPP effective\*?

\*An RPP is judged by IH to be effective if personnel utilize respirators correctly for operations that require them.

<u>Comments</u>: If applicable, specific respiratory hazards and the types of respirators used are listed in the Shop Hazard Assessments found in this report. Be advised that if individuals have been designated for enrollment in the RPP Medical Surveillance Program by Industrial Hygiene, employees must receive annual RPP Training, fit testing and medical certification.

Respirator fit testing ensures user's correct use and wear of respirators. Annual respirator training is to reacquaint the respirator qualified personnel on the knowledge of the numerous aspects of the RPP and must be conducted and documented.

Annual review of the program by IH may not be enough to meet the mandated requirement but provide pertinent information for complete program evaluation.

Voluntary use of respirator requires the approval of the RPPM. When using filtering face pieces respirators (N95) for humanitarian reasons a complete program is not required, provided there is no risk anticipated. However, when worker chooses to wear a respirator other than the filtering face pieces even though the job activity warrants no respiratory protection or any OSHA Standards, then the complete administration of the program must be established.

Reference(s): OPNAVINST 5100.23G Chapter 15 Respiratory Protection; NAVMC Directive 5100.8 MARCOR OSH Program Manual Chapter 13 Personal Protective Equipment; 29 CFR 1910.134 Respiratory Protection

#### Management of Reproductive Hazards:

X Y L N L N/A:	Are reproductive hazards present in command work center(s)?								
🗌 Y 🛛 N 🗌 N/A:	Y 🛛 N 🗌 N/A: Any changes in reproductive hazards from previous survey?								
🛛 Y 🗌 N 🗌 N/A:	Command properly addresses both male and female reproductive concerns?								
🛛 Y 🗌 N 🗌 N/A:	Noise is a potential reproductive hazard for command personnel.								
🛛 Y 🗌 N 🗌 N/A:	Heat stress is a potential reproductive hazard for command personnel.								
🛛 Y 🗌 N 🗌 N/A:	Chemical/physical stressors are potential reproductive hazards for command.								
assessments found :	c reproductive hazards are listed in the individual work center hazard in the back of this report. It is advisable if possible, to reduce, minimize or zards or exposure to personnel.								
of adverse health e	<u>Hazards</u> . Toxicants that target female reproductive systems can cause variety effects. Among the manifestations of reproductive toxicity are changes in sexual y, fertility, gestation time as well as premature menopause.								
Male Reproductive Hazards. Reproductive hazards that affect male reproductive system can affect sperm count, change and alter sexual behavior or increased infertility.									
	<b>Reference(s)</b> : OPNAVINST 6000.1C - Navy Guidelines Concerning Pregnancy and Parenthood; NMCPHC Reproductive Hazards Tech Manual - 2010 NMCPHC-TM-OEM 6260.01C April 2010								

Hazardous Material Control and Management (HMC&M) Program:

- Y N N/A: Authorized User's List (AUL) Available?
- Y N N /A: Accurate AUL?
- Y 🗌 N 🗌 N/A: Safety Data Sheets (SDS) Files Available?
- Y N N/A: Accurate SDS File?

🗌 Y 🛛 N 🗌 N/A: Personnel are aware of HMC&M hazards and use appropriate personal protective

equipment?

#### Comments:

The Hazardous Communication Training in most of the shops is incomplete or partially documented. For Telephone Office, Fall Protection Training is not documented.

**Recommendation:** Keep the annual Hazardous Awareness training current and documented. Training must be at the core of every good health and safety program. For management to lead by example, designated personnel to assess shop occupational hazards, and hazards to be controlled or abated, everyone involved must be aware and trained.

**Reference(s):** OPNAVINST 5100.23(series) Navy Safety and Occupational Health Program Manual; 29 CFR 1910.1200 Hazard Communications; Wing Order P4750.4A Ch 1-Standard Operating Procedures (SOP) For Ground Corrosion Prevention and Control

#### Noise and Hearing Conservation Program (HCP):

X □ N □ N/A: Noise hazardous operations/equipment identified in this work center?
X □ N □ N/A: Noise hazardous areas/equipment properly labeled?
X □ N □ N/A: Are personnel recommended for HCP enrollment?
X □ N □ N/A: Are personnel receiving annual audiograms/HCP Training?
X □ N □ N/A: Are hearing protective devices (HPD) readily available for worker use?
X □ N □ N/A: Is the correct type/level of HPD available and being used?
X □ N □ N/A: Personnel perform weapons firing and have been advised to use CAEPs?
X □ N □ N/A: Is HPD used in noise hazardous areas or when working with noise hazardous equipment?

#### Comments:

As per MARADMIN 010/12 all active duty Marines must be included in the HCP. Justifications for including all active duty personnel in the HCP is due to undetermined accurate continuous and impulse/impact noise assessment during field training, weapons marksmanship training, and in particular, operational deployments. Civilian personnel in the HCP remained to be exposure based vice administrative policy mandate.

Emphasis is that the leadership takes initiative to lead by example for compliance to the preservation mandate which consist of annual audiometric monitoring, hearing conservation education and proper use of hearing protection devices when anticipating exposure to hazardous noise.

Reference(s): MARADMIN 010/12 dtd 06 Jan 12 Hearing Conservation Readiness; MCO 6260.1E Marine Corps Hearing Conservation Program; OPNAVINST 5100.23G Chapter 18, Navy Safety & Occupational Health (SOH) Program Manual.

## Ventilation:

□ Y □ N ⊠ N/A: Are ventilation systems used to control workplace exposures?

 $X \square N \square N/A$ : Are the systems effective and operating properly?

### Comments:

The PMO Detention Cells meet the habitability requirement (ventilation) of MCO 1630.3D. In PMO Rifle Issue Room, the nuisance fumes from Clean, Lubrication and Preservation (CLP) solvent can be diminish by using a portable charcoal filtered air circulation device. The room does not have an exhaust ventilation system.

Reference(s): MCO 1630.3D Operation and Administration of Holding Cells and Detention Spaces

## Ergonomics:

Y \_\_ N \_\_ N/A: Potential for ergonomic injuries for office/ administrative tasks?
Y \_\_ N \_\_ N/A: Potential for ergonomic injuries for shop tasks?
Y \_\_ N \_\_ N/A: Office equipment/furniture incorporates good ergonomic design?
Y \_\_ N \_\_ N/A: Shop equipment/work center incorporates good ergonomic design?
Y \_\_ N \_\_ N/A: Command has a formal Ergonomics Program which annually reviews ergo-related injuries and seeks to eliminate the potential for ergonomically-related discomfort/strain or

injury?

## Comments:

Keyboarding and visual focus on VDT is the predominant task performed by employees. During this work routine, fingers, palms wrist and forearms may be pressed on hard or sharp surfaces or strained due to awkward positions and repetitive motions. Under this condition, muscles, tendons, ligaments, nerves and blood vessels can be damaged. Contact stress may affect the nerves and blood vessels because these tissues are close to the skin and underlying bones which restricts the flow of blood when under pressure. With awkward position, muscle groups are fatigued due to exertion in smaller, weaker muscles or preventing large muscle groups to work efficiently during physical activity.

Visual strain <u>can become a problem</u> during prolonged eye contact on the video display terminals (VDT) especially if the monitor is not adjusted to the eye level <u>which may also create neck muscle</u> <u>stress.</u>

A potential exists for back problems for people who spend majority of workday in office chairs. Improper alignment of the spine and appendages can be risk factor for back strain or injury. Supervisors should allow breaks to avoid static posture so that workers can stretch and move freely for few moments. Proper office ergonomic equipment and posture includes correct chair height adjustments, work station and monitor adjustments that assist the employee to obtain neutral posture when performing keyboarding and other administrative work.

Enterprise Safety Application Management System (ESAMS) is an interactive program to enable personnel to direct occupational health and safety concerns. The Base Safety Manager and supervisors have a direct access to these reports, comments and recommendations. With this information and gained knowledge, issues will be promptly addressed and remedial measures expediently implemented.

Naval Facilities Engineering Command provides on-site ergonomic assessments of processes and tasks to assist the command with evaluating hazards and finding cost concession solutions that not only reduce the risk of injury but increase performance by removing the 'waste' from a system. You can request a site visit by completing the Ergonomic Site Visit Request Form found at www.navfac.navy.mil/safety ~ select Hazard Abatement.

NAVFAC can also assist the command by providing you with occupational safety and health survey forms called the Job Requirements and Physical Demands Survey. The JRPD can be distributed to shops or activities in your command for anonymous reporting from the workers as to their degree of exposure to ergonomic risk factor and their frequency and severity of discomfort. The JRPD ranks the shop or process on a scale of one to 9 to evaluate whether or not the shop would benefit from an ergonomic intervention.

**Reference(s)**: OPNAVINST 5100.23G Chapter 23, Navy Safety & Occupational Health (SOH) Program Manual; NAVMC Directive 5100.8 MARCOR OSH Program Manual Chapter 19 Ergonomics Program.

#### Other Applicable Programs:

$\square$	Y	Π	Ν	N/A:	Lead	Control
	-		T.4	1./ 1.7.	ЦСаа	OOLCTOT

- 🗌 Y 🛛 N 🗋 N/A: Asbestos Control
- 🛛 Y 🗌 N 🗌 N/A: Carcinogens

X Y □ N □ N/A: Heat Stress

## Comments:

**LEAD**: Soldering is seldom performed and short duration (less than five minutes per session). Potential exposure routes from lead soldering can include ingestion of lead due to surface contamination and by failing to wash hands prior to eating or drinking. Soldering may require the use of mixed metal alloys and fluxes. Carefully review the SDS for these materials in order to identify potential health and safety hazards. With the frequency, duration and amount of lead soldering performed; worker enrollment in the Lead Medical Surveillance Program is not required.

**CARCINOGEN:** Carcinogens are identified in the IH survey. See Individual Hazard Assessment. Appropriate medical surveillance, engineering controls and PPE are in place for worker protection. See Summary of Identified Carcinogens in the Shops.

**HEAT STRESS:** Personnel can be exposed temperatures outdoors during extreme weather conditions however; workers are able to take breaks as needed in shaded and well ventilated spaces. Hot/Cold weather condition is announced to all hands in Operational Readiness Management (ORM) situational report and heat stress index colored flags are conspicuously displayed base wide. Heat related injury prevention training is conducted annually. The training is provided by the assigned medical personnel to the command which curriculum includes distress recognition, type, immediate care appropriate and prevention of heat stress.

Reference(s): NAVMC Directive 5100.8 MARCOR OSH Program Manual Chapter 16 Lead Safety Program; MCO 6200.1E Marine Corps Heat Injury Prevention Program.

		גמ	TE: 11 JAN 2017	
WORKPLACE HAZARD ASSESSMENT RECORDED BY: E. L. RANCHES			VISOR: CW03 JAMISON	
INSTALLATION: MARINE CORPS AIR STATION		PHONE		
BUILDING NUMBER: 74		-	PERSONNEL: 36 GS: 0	
SHOP NAME: MCAS AIRCRAFT RECOVERY		101111		CONTR: 01
IH TYPE/DATE 2 YEAR DOEHRS CATEGORY 2				CONTR: 0
SHOP OPERATIONS: Responsible for the maintenance a	nd repair of modular	arresting		
strips for expeditionary airfield facilities (EAF).				
containers of the arresting gears and components of				
preservation using spray enamel paint is conducted				
assigned to NAF Lakehurst, New Jersey. No change i		an arrest.	ing gears. Excensive such	race preparacion and particing is
	DURATION/	NUMBER OF	CONTROLS	
PROCESS/OPERATIONS AND STRESSOR/HAZARD	FREQUENCY	WORKERS	(1)	EXPOSURE ASSESSMENT (2)
Weapons Qualification Operations: All Marine AD	2-4 hrs./day,	36	USED/REQUIRED:	Unacceptable for noise. Based on
personnel are required to perform weapons	1x/ year for			statistical evaluation of measured
qualifications annually. "The U.S. Army reports	rifle		PPE: Naval Hospital	noise dosimetry and impulse noise
M-4 Carbine (5.56 mm) produced peak sound pressure	qualification		Beaufort Audiologist	above 140 dB(P).
levels (SPLs) as high as 165. Peak noise levels	for military		has recommended that	
of 160 dBP and above are known to cause immediate	personnel.		the double-sided combat	Acceptable for lead. Based on
physical trauma.	Porodinor.		arms ear plugs (CAEP)	limited frequency and duration of
prysical claura.	1-2 hrs./day,		are used by range	exposure.
Workers should be trained to recognize noise	1x/ year for		personnel when working	capubute.
sources within the command and to wear appropriate	pistol		inside a 75 ft. radius	Ensure that workers fully
level of Hearing Protective Devices (HPD) in noise	qualification		of the active firing	participate in the HCP which
hazardous areas.	for military		range.	includes annual HCP training;
nazaroous areas.	personnel.		range.	5.
(1) 77-1	personnel.		ADM: UCD Basisiss	annual audiograms; labeling of
(1)Noise			ADM: HCP Training;	noise hazardous equipment and
(2) Lead			Personal Hygiene	areas; and the use of appropriate
			(handwashing), Lead	hearing protective devices.
Per Marine Corps Order 6260.3A Marine Corps			Safety Training, HAZCOM	
Hearing Conservation Program 26 Sep 2016, all			Training.	Noise is listed as a fetal
active duty personnel shall be enrolled in the				developmental Hazard in NMCPHC-IM-
HCP.				OEM 6260.1C Reproductive And
				Developmental Hazards.
				Lead is listed in NMCPHC-IM-OEM
				6260.01C April 2010 as a
				Reproductive Hazard.
				Lead is a potential ototoxic which
				can increase the risk of hearing
				<u>loss.</u>
Aircraft/Flightline Operations.	2-4 hours/day.	35	USED/REQUIRED:	Unacceptable for noise. SEG Noise
Maintenance of expeditionary airfield equipment	· · · · · · · · · · · · · · · · · · ·	20		dosimetry sampling was above the
and modular arresting gears in an active airfield.			PPE: Single Hearing	occupational exposure limit.
Replenishing coolant for E28 arresting gear using			Protection (Plugs or	
coolant containing ethylene glycol. Coolant is in			Muffs) is required when	
			noise levels are 85-103	
a single service pour type container. Uses 2 quarts a week			dB(A); on flight line	potential for exposure
quarts a week.			during flight	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
			operations,	Noise is listed in NMCPHC-IM-OEM
Representative Noise Dosimetry Results from launch			Double Hearing	6260.01C April 2010 as a
& recovery/aircraft maintenance activities, for			Protection (Plugs and	Reproductive Hazard.
VMFA-533, 19 Aug 15; and VMFA-224 16 Jun 15			Muffs or cranials and plugs) are required	
(Marine Corps Occupational Exposure Level (MCOEL)			when noise levels are	Ethylene Glycol is listed in
= 85 dB(A) Time Weighted Average (TWA).			at or above 104 dB(A);	NMCPHC-IM-OEM 6260.01C April 2010
SEG -Launch and Recovery Operations:			Nitrile Gloves.	as a Reproductive Hazard.
VMFA-533 IH15-0587=89.9 dB(A)				
VMFA-533 IH15-0588=80.8 dB(A)			DV: Outdoors.	
VMFA-533 IH15-0589=90.5 dB(A)			-	
VMFA-533 IH15-0590=92.4 dB(A)			ADM: HCP Training;	
			HAZCOM Training.	
(1) Noise				
(2) Incidental chemical splash				

WORK OPERATION/TASK	RECOMMENDED MEL	ICAL PROGRAM	1	MEDICAL PROG	RAM	ESTIMATED NUMBER OF WORKERS
	WORK SHOP MEDICAL	SURVEILLANC	e summary			
CARCINOGEN-THE MATERIAL C	JNIAINS >U.1% OF AN	USHA, AUGIH	I, LARC, OR NTP-1	KEUUGNZED CAR	UINOGEN.	
	THE MATERIAL IS A M					
	HTHE MATERIAL POSES					
UNACCEPTABLE-ONE WHERE THE IH		-		D ABOVE THE SI	ELECTED C	EL.
	ION OF THE PROCESS					
UNCERTAIN-ADDITIONAL DATA NEED TO BE COLLECTED TO (	CLARIFY THE EXPOSUR	E ASSESSMENT	. THE IH SHOUL	d make an int	ERIM EXPC	SURE ASSESSMENT BASED O
ACCEPTABLE-ONE WHERE THE IH WI	L NOT EXPECT THE S	EG, ON AVERA	GE, TO BE EXPOSI	ED ABOVE THE	SELECTED	OEL.
	2. USE THE FOLLO	WING EXPOSU	RE CODES:			
HCP - HEARING CONSERVATION PROGR	AM SEG — SIMILARL	Y EXPOSED GR	OUP RPP-RES	SPIRATORY PRO	TECTION F	ROGRAM
DV - DILUTION VENTI						
ADM - ADMINISTRATIVE CON			TECTIVE EQUIPME			
	1. USE THE FOLL	OWING CONTRO	L CODES:			
(1) Incidental chemical splash						
spray paint for corrosion control.						
Foluene and Xylene are organic solvents in enamel						
and Polyurethane thinner.						
Component of GACO Coating Black (8030-00-182-6460)						
applied by roller or paint brush.						
Carbon Black, Ethyl Benzene. The material is						
covers of the FLOS. Chemical: Toluene, Xylene,						
(FLOS) is touch up painting for corrosion control. Water and soap are used in cleaning the lens				-	<u>anom</u> ioga	<u></u>
Maintenance of Fresnel Lens Optical Landing System			HAZCOM Trainin	<u> </u>	Carbon BL Carcinoge	ack is IARC recognized
J.			ADM: HCP Trai	ning.		
prevent from further fraying.			Nitrile Gloves	5. <i>6</i>	as a Repro	oductive Hazard.
Maintenance of tape for the arresting gear to			flight line go		MCPHC-IM	-OEM 6260.01C April 2010
a cleaning cloth.			PPE: Cranials	with 7	Toluene a	nd Xylene are listed in
removed. With isopropyl alcohol is impregnated in	neeueu.		DV. Large Open	i aleas e	exposure j	potentiai.
of arresting gear where corrosion products were	minutes/day as needed.		DV: Large oper			ation minimize the potential.
Coating /Painting Operations. Cleaning surfaces	10 40	35	USED/REQUIRED:			e. Limited quantity,

WORK SHOP MEDICAL SURVELLIANCE SUMMAL							
WORK OPERATION/TASK	RECOMMENDED MEDICAL PROGRAM	MEDICAL PROGRAM	ESTIMATED NUMBER OF				
		NUMBER	WORKERS				
Weapons qualification/Flightline operations	Hearing Conservation Program	503	35				

WORKPLACE HAZARD AS	SESSMENT		DATE: 9 JAN 2	017
WORKPLACE HAZARD AS           RECORDED BY:         E. L. RANCHES           INSTALLATION:         MARINE CORPS AIR STATION           BUILDING NUMBER:         1166           SHOP NAME:         MCAS AIR TRAFFIC CONTROL (AI           IH TYPE/DATE         2 YEAR DOEMRS CATEGORY 2           SHOP OFFRATIONS:         The work center is responsibled           and airfield lights.         There are no changes in to           occupational exposures.         No significant change id           PROCESS/OFFRATIONS AND STRESSOR/HAZARD         Meagons Qualification Operations: All Marine           AD personnel are required to perform weapons         qualifications annually. "The U.S. Army           reports M-4 Carbine (5.56 mm) produced peak         sound pressure levels (SPLs) as high as 165.           Peak noise levels of 160 dBP and above are         known to cause immediate physical trauma.           Workers should be trained to recognize noise sources within the command and to wear         appropriate level of Hearing Protective           Devices (HPD) in noise hazardous areas.         (1)Noise         (2)Lead           Per Marine Corps Order 6260.3A Marine Corps         Partine Corps	C) MAINIENANCE e for the maintena the shop maintenanc	ce procedure:	SUPERVISOR: G PHONE: 2. TOTAL PERSONNEL: 2. MALE: MIL: 1. FEMALE:MIL 0. air of Base Operation's comm s. No major changes in shop of	YSGT CHASE 28-7934 1 GS: 6 CONIR: 0 4 GS: 6 CONIR: 0 1 GS 0 CONIR: 0 unications, navigational aids, radars,
<ul> <li>Per Marine Corps Order 6260.3A Marine Corps Hearing Conservation Program 26 Sep 2016, all active duty personnel shall be enrolled in the HCP.</li> <li>Coating/Painting Operations Spray painting for corrosion control of navigational aids, antennas and radar support equipment located in mid airfield. Can contain: Chemical: Toluene, Xylene, Methyl Ethyl Ketone. Organic solvents in enamel paint.</li> <li>Use Isopropyl Alcohol is impregnated in cleaning cloth or Q tips.</li> <li>Use Corrosion control on air traffic control equipment (Radars and NAVAIDS) and support equipment which can contain petroleum distillates. A 16 oz. aerosol can last for 3 weeks. Equipment is inspected every six months for signs of corrosion.</li> <li>(1) Incidental chemical splash</li> </ul>	30 minutes/day. As needed.	21	USED/REQUIRED: <u>DV</u> : Outdoors. <u>PPE</u> : Nitrile gloves, Safety glasses. cranials. <u>ADM</u> : HAZMAT Training.	developmental Hazard in NMCPHC-TM-OEM 6260.1C Reproductive And Developmental Hazards. Lead is listed in NMCPHC-TM-OEM 6260.01C April 2010 as a Reproductive Hazard. Lead is a potential ototoxic which can increase the risk of hearing loss. Acceptable. Duration of task and amount of product used. Toluene and Xylene are listed in NMCPHC-TM-OEM 6260.01C April 2010 as a Reproductive Hazard.

Aircraft/Flightline Operations. Maintenance of air traffic control (ATC)	2-4 hours/day. As needed.	21	USED/REQUIRED:		for noise. Based on
radars, navigational aids, communication	in included.		ADM: Hearing	-	esults exceeding the Accupational Exposure
equipment in flightline midfield and airfield			Conservation Program	-	of 85 dBA, 8-hour time-
lights. Routine preventive maintenance of			training;	weighted avera	-
radar equipment, cable ring and radar			Supervisor enforcement of	weighteed aveia	-90 <b>-</b>
couplers. Using various oils and greases that			use of hearing	Acceptable all	others. Based on
contain petroleum.			protection; Annual	-	on and quantity of
Personnel may be exposed to heat or cold			ergonomics training, team	exposure.	1 2
stress during peak weather conditions when			lifting for $> 80$ lbs.,		
working outdoors; Heat Injury prevention			task variety, rest		ed in NMCPHC-IM-OEM
training is conducted annually by assigned			breaks, HAZMAT Training,		2010 as a Reproductive
medical personnel. Document all training in			Heat/Cold Stress	Hazard.	
ESAMS. Application and Management Systems			Training, Flag System,		
(ESAMS) is a base wide media resource to			Hydration, Work Rest Cycles.		is listed in NMCPHC-IM-
inform management of any incident/complaint			cycres.		pril 2010 as a and/or developmental
of potential or case of occupational injury.			PPE: BUMEDNOTE 6260	hazard.	nd/or developmental
All MCAS personnel possess an account for			requires the use of	11020101.	
this system.			double hearing protection	Heat Stress is	s listed in NMCPHC-IM-OEM
Porroportativo Naico Docimation Deculto form			(earplugs AND muffs) when		2010 as a reproductive
Representative Noise Dosimetry Results from launch & recovery/aircraft maintenance			sound levels exceed 96		mental hazard.
activities, for VMFA-533, 19 Aug 15; and			dB(A).		
VMFA-224 16 Jun 15 (Marine Corps Occupational			ENC, Carta lift acciet		
Exposure Level (MCOEL) = $85 \text{ dB}(A)$ Time			<u>ENG</u> : Carts, lift assist devices.		
Weighted Average (TWA) and calculated SEG			UEVICES.		
exposure is $94.5 \text{ dB}(A)$ .					
Bending, stooping, crouching, climbing,					
bending, reaching and lifting. Lifting					
toolboxes, gear and line equipment.					
(1)Noise					
(2) Incidental chemical splash					
(3) Dynamic Postures					
(4)Heat Stress (5)Cold Stress					
Soldering: Personnel perform lead tin	5-30 minutes/	10	USED/REQUIRED:	Acceptable A	mount of solder used and
soldering. bonding mother board and cards	day, 2/3	10	0000,10001100.	-	on minimize the
electrical terminals for ATC equipment.	times/month.		ENG: local fume		sure. Soldering is very
			extractor hood.		ring routine maintenance
				of equipment.	5
1. Lead			ADM: Hand washing, Good		
2. Static Posture			Housekeeping, Lead	Exposure to le	ead is through hand to
			awareness training,	mouth ingestio	n when hands are not
			HAZMAT Training.	washed before	eating and drinking.
					in NMCPHC-TM-OEM
					2010 as a Reproductive
	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		CONTROL CODES:	Hazard.	
ADM — ADMINISTRATIV			CONTROL CODES: VAL PROTECTIVE EQUIPMENT IS		
			ING CONTROLS IV - LOCAL VE		
			DSED GROUP RPP -RESPIRATO		ROGRAM
			EXPOSURE CODES:		
		-	N AVERAGE, TO BE EXPOSED ABOV		
UNCERTAIN-ADDITIONAL DATA NEED TO BE COLLECTE				AN INTERIM EXPOS	buke Assessment BASED ON
			R PROFESSIONAL JUDGEMENT. AVERAGE, TO BE EXPOSED ABOVE	י חישתי מביז ברייסייה איז	т.
UNAUGEIADLETUNE WHERE I			AVERAGE, 10 BE EXPOSED ABOVE IN ABSORPTION HAZARD.	UE SELECIED OF	•
REPRO HA			ECOGNIZED REPRODUCTIVE HAZARD.	D.	
			, ACGIH, IARC, OR NTP-RECOGNZ		
			EILLANCE SUMMARY		
WORK OPERATION/TASK			FEDICAL PROGRAM	MEDICAL	ESTIMATED NUMBER OF
West offering lines				PROGRAM	WORKERS
				NUMBER	HALLING .
Small arms firing-outdoors/Flight operations		Hearing Cone	angestion Decomposition	503	01
		Real LIG COUSE	ervalion Program	J(J.)	21
		nearing conse	ervation Program	505	21

WORKPLACE HAZARD ASSESSME	NT		DATE: 9 JAN 2017			
RECORDED BY: E. L. RANCHES			SUPERVISOR: DAN DUFFY			
INSTALLATION: MARINE CORPS AIR STATION			PHONE: 228	3–7287		
BUILDING NUMBER: BLDG 1075			TOTAL PERSONNEL: 12	GS: 8 CONTR: 0		
SHOP NAME: MCAS DISTRIBUTION MANAGEMENT O	FFICE (BAY 13)		MALE: MIL: 4	GS: 7 CONTR: 0		
IH TYPE/DATE 2 YEAR DOEHRS CATEGORY 2	. ,		FEMALE: MIL 0	GS 1 CONTR: 0		
SHOP OPERATIONS: Personnel are responsible for com	struction of shi	ipping crates				
woodworking power tools that are capable of general						
Delivers HAZMAT from warehouse to distribution point						
Occasionally uses treated woods in manufacturing si		TTEPET TRETEC	I TOTALITE IN NOVING CL	ates and containers in the warehouse.		
occasionally uses created woods in nanuracturing si	DURATION/	NUMBER OF	CONTROLS			
PROCESS/OPERATIONS AND STRESSOR/HAZARD	FREQUENCY	WORKERS	(1)	EXPOSURE ASSESSMENT (2)		
Weapons Qualification Operations: All Marine AD	2-4 hrs/day,	4	USED/REQUIRED:	Unacceptable for noise. Based on		
personnel are required to perform weapons	1x/ year for	-	00000/1002011000	statistical evaluation of measured noise		
qualifications annually. "The U.S. Army reports	rifle		PPE: Naval Hospital	dosimetry and impulse noise above 140		
	-		Beaufort			
M-4 Carbine (5.56 mm) produced peak sound	qualification		Audiologist has	dB(P).		
pressure levels (SPLs) as high as 165. Peak	for military		recommended that			
noise levels of 160 dBP and above are known to	personnel.			Acceptable for lead. Based on limited		
cause immediate physical trauma.			the double-sided	frequency and duration of exposure.		
	1-2 hrs./day,		combat arms ear			
Workers should be trained to recognize noise	1x/ year for		<u>plugs (CAEP)</u> are	Ensure that workers fully participate in		
sources within the command and to wear	pistol		used by range	the HCP which includes annual HCP		
appropriate level of Hearing Protective Devices	qualification		personnel when	training; annual audiograms; labeling of		
(HPD) in noise hazardous areas.	for military		working inside a 75	noise hazardous equipment and areas; and		
	personnel.		ft. radius of the	the use of appropriate hearing protective		
(1)Noise			active firing	devices.		
(2) Lead			range.			
				Noise is listed as a fetal developmental		
Per Marine Corps Order 6260.3A Marine Corps			ADM: HCP Training;	Hazard in NMCPHC-IM-OEM 6260.1C		
Hearing Conservation Program 26 Sep 2016, all			Personal Hygiene	Reproductive And Developmental Hazards.		
active duty personnel shall be enrolled in the			(handwashing), Lead	<u></u>		
HCP.			Safety Training,	Lead is listed in NMCPHC-TM-CEM 6260.01C		
iki.			HAZCOM Training.	April 2010 as a Reproductive Hazard.		
			in hour manning.	<u></u>		
				Lead is a potential ototoxic which can		
				increase the risk of hearing loss.		
Supplies/Material Handling: Operation of diesel	2-4 hrs/day.	12	PPE: Single	Acceptable. Duration of tasks and		
powered forklifts in the warehouse. Minor	. 1		hearing protection	regularity of exposure minimize the		
potential for Diesel Fumes and Carbon Monoxide as			for 85 dBA or	potential for exposure.		
Several floor fans allow the circulation and			greater.	1		
evacuation of contaminated air in the warehouse.				Heavy (lifting over 25 pounds) and		
The door gates on both ends of the warehouse are			ENG: Forklifts,	prolonged standing are listed in NMCPHC-		
kept open allowing air for cross sectional			pallet jacks,	TM-OEM 6260.01C April 2010 as		
ventilation.			carts.	developmental Reproductive Hazards.		
Ventitation.				developmental Reproductive Hazards.		
Menual handling of some sumplies Teterouses			<u>DV</u> : Floor fans are used to circulate	Maine in listed on a fatel downlawsontal		
Manual handling of some supplies. Enterprise			the air in the	Noise is listed as a fetal developmental		
Safety Application and Management Systems (ESAMS) is a base wide media resource to inform			warehouse.	Hazard in NMCPHC-TM-OEM 6260.1C		
management of any incident/complaint of potential	1	1	WULCIDUDE.	Reproductive And Developmental Hazards.		
or case of occupational injury. All MCAS			ADM: Forklift	Carbon Manual de la liste d'in anoma		
personnel possess an account for this system.			Operator	Carbon Monoxide is listed in NMCPHC-TM-OEM		
restrict process an account for and byodall.			Certification,	6260.01C April 2010 as a Reproductive		
(1) Noise			HAZCOM Training,	Hazard.		
(2) Forceful Exertion			Work/rest cycle and	Carbon monoxide is a potential ototoxic		
(3) Work/Rate Repetition			Ergonomics, General	which can increase the risk of hearing		
(4) Particulates (Diesel)			Training.	loss.		
(5) Carbon Monoxide	1	1				
Coating/Paint Operations: Spray painting	15-30	8	USED/REQUIRED:	Acceptable. Regularity, amount of		
labels/markings on shipping crates. This is very	minutes/day.	0	οομινι τωχοτητών.	material and duration of use minimize the		
seldom conducted anymore but shop maintains	As needed.		ADM: HAZCOM	potential for exposure.		
adequate painting supplies for as needed use.			Training	Firster for aposito.		
Product may contain <b>Toluene</b> , <b>Xylene</b> . Painting is						
conducted in a well ventilated area.			DV: Open bays or	Toluene and Xylene are listed in NMCPHC-		
			outdoors	TM-OEM 6260.01C April 2010 as a		
(1) Toluene				Reproductive Hazard.		
· ·	1	1	PPE: Goggles,			
(2) Xvlene			rrn. Guyytes,			
(2) Xylene			Chemical Splash,			

Administrative Operations: Office environment	1–4 hrs/day	3	USED/REQUIRED:	Acceptable. No reports	of discomfort have
(computers and keyboarding) comprise the majority	keyboarding.	5		been reported for these	
of work evolutions. Personnel have task variety	- <u>1</u> J-		ADM: Ergo Training,	been reported for these	
(keyboarding, filing, phone, oversight			Task Variety,	Heavy (lifting over 25)	counds) and
activities, etc.) No worker performs dedicated			Breaks.	prolonged standing are	
data entry operations. The only heavy lifting			Dictary.	TM-OEM 6260.01C April 2	
operations performed are rare supply operations			ENG: Carts, Hand	developmental Reproduct.	
with the heaviest item moved a box of copy paper			trucks, Ergo	<u></u>	
(~40 lbs.) When new computer equipment is			Chairs,		
installed or delivered, workers utilize carts to			Workstations.		
transport such equipment.			Normbeactorib.		
(1) Static Posture					
(2) Work/Rate Repetition					
··· · •					
	1. USE THE H	FOLLOWING CON	VIROL CODES:	•	
ADM - ADMINISTRATIVE CO	NTROLS PPE	E - PERSONAL	PROTECTIVE EQUIPMENT	ISO - ISOLATION	
DV - DILUTION VENI	TILATION ENG -	ENGINEERING	CONTROLS LV - LOCAL	VENTILATION	
HCP - HEARING CONSERVATION PROG	RAM SEG - SIMII	ARLY EXPOSEI	) GROUP RPP -RESPIR	RATORY PROTECTION PROGRAM	
	0				
	2. USE THE F				
ACCEPTABLE-ONE WHERE THE IH W		,	·		
UNCERTAIN-ADDITIONAL DATA NEED TO BE COLLECTED TO				AKE AN INTERIM EXPOSURE AS	SESSMENT BASED ON
		, -	ROFESSIONAL JUDGEMENT.		
UNACCEPTABLE-ONE WHERE THE I			·	BOVE THE SELECTED OEL.	
			ABSORPTION HAZARD.		
			IZED REPRODUCTIVE HAZAI		
CARCINOGEN-THE MATERIAL	CONTAINS >0.1% OF	F AN OSHA, AC	CGIH, IARC, OR NTP-RECO	GNZED CARCINOGEN.	
	WORK SHOP MEDI				
WORK OPERATION/TASK	RECOMMENDED ME	DICAL PROGRAM	M	NEDICAL PROGRAM NUMBER	ESTIMATED NUMBER
					OF WORKERS
Forklift Operations	Forklift Opera	tor		710	8
Woodworking / Weapons and Ordnance	Hearing Conser	vation Progr	am	503	8

WORKPLACE HAZZ	ARD ASSESSMENT		DATE: 10 JAN 201	7			
RECORDED BY: E. L. RANCHES							
INSTALLATION MARINE CORPS AIR ST	ratton .			-9041			
BUILDING NUMBER: BLDG 2091				TOTAL PERSONNEL: 8 GS: 0 CONTR: 0			
SHOP NAME: MCAS EXPLOSIVE ORD	JANCE DISPOSAT		MALE: MIL: 8				
				GS: U CONTR: U GS 0 CONTR: 0			
IH TYPE/DATE 2 YEAR DOEHRS CATED							
SHOP OPERATIONS: No changes from prev							
				Rescue on any distress call from operating			
aircraft laden with ordnance. EOD als							
				here they retrieve practice bombs and dispose			
		personnel use	radiology in examining bo	mbs and other explosives. There are 3 MMSD 31			
personnel attached to MCAS. No change	-						
PROCESS/OPERATIONS AND STRESSOR/HAZ	ZARD DURATION/ FREQUENCY		CONTROLS (1)	EXPOSURE ASSESSMENT (2)			
Weapons Qualification Operations: All			USED/REQUIRED:	Unacceptable for noise. Based on			
AD personnel are required to perform v		- ·		statistical evaluation of measured noise			
qualifications annually. "The U.S. Ar		-	PPE: Naval Hospital	dosimetry and impulse noise above 140			
reports M-4 Carbine (5.56 mm) produced	-		Beaufort Audiologist	dB(P).			
			has recommended that				
sound pressure levels (SPLs) as high a		Ŷ	the double-sided	Acceptable for load Bacad on limited			
Peak noise levels of 160 dBP and above				Acceptable for lead. Based on limited			
known to cause immediate physical trai			combat arms ear plugs	frequency and duration of exposure.			
	1-2 hrs./day		(CAEP) are used by				
Workers should be trained to recognize	-	r	range personnel when	Ensure that workers fully participate in			
sources within the command and to wear	1		working inside a 75	the HCP which includes annual HCP training;			
appropriate level of Hearing Protectiv	-		ft. radius of the	annual audiograms; labeling of noise			
Devices (HPD) in noise hazardous areas	s. for militar	Y	active firing range.	hazardous equipment and areas; and the use			
	personnel			of appropriate hearing protective devices.			
(1)Noise			ADM: HCP Training;				
(2) Lead			Personal Hygiene	Noise is listed as a fetal developmental			
			(handwashing), Lead	Hazard in NMCPHC-IM-OFM 6260.1C			
Per Marine Corps Order 6260.3A Marine	Corps		Toxic Hazardous	Reproductive And Developmental Hazards.			
Hearing Conservation Program 26 Sep 20			Training, HAZCOM.	<u></u>			
all active duty personnel shall be en				Lead is listed in NMCPHC-IM-CEM 6260.01C			
in the HCP.	orred			April 2010 as a Reproductive Hazard.			
III ule nor.				ALL 2010 as a reproductive made			
				Lead is a potential ototoxic which can			
				increase the risk of hearing loss.			
Explosive Ordnance Operations: Explos	sive 2-4	8	USED/REQUIRED:	Acceptable. Personnel controlling the			
device detonation to dispose unexplode		_	~~~~	detonation are at a safe distance from the			
aged ordnance usually in a remote area	-		PPE: Single Hearing	disposal site.			
the bomb range.			Protection (Plugs OR	arsposar site.			
the bolib targe.			Muffs) is required	Historical sampling indicates exposures			
Converting the burg out bound for me	1		when noise levels are	below the occupational exposure limit.			
Operating the burn out barrel for small			85-103 dB(A); Full	berow the occupational exposure innit.			
ammunition or conduct soldering for sm			face respirator with				
equipment and electrical circuits for			organic vapor	Noise is listed as a fetal developmental			
devices/equipment which can contain le	ead.		cartridges and HEPA	Hazard in NMCPHC-TM-OEM 6260.1C			
			filter; CEOD 9 Bomb	Reproductive And Developmental Hazards.			
Radiographic examination of packages v	vith		Suit, Ballistic face				
suspected explosive device. Most of	-		shield and Kevlar	Lead is listed in NMCPHC-IM-CEM 6260.01C			
radiation exposure is during training.			gloves.	April 2010 as a Reproductive Hazard.			
radiation source for the X-ray unit is							
mounted in a robotics remotely operate			ADM: Explosive	Ionizing radiation is listed in NMCPHC-TM-			
a secure distance during bomb detection disposal.	ni allu		Handler's	OEM 6260.01C April 2010 as a Reproductive			
aropoour.			Physical/Motor Vehicle	Hazard.			
Hazardous material (explosive) respond	br		operator, Safety				
			procedures, HAZCOM	Ionizing radiation is listed in IARC as a			
Wearing the CEOD 9 Bomb Suit and worki			Training, Work	group 1 human carcinogen.			
an extreme environment Suit is equipped	zu WIUI		Practices; Procedural,				
built in cooling system.			HAZWOPER	Heat Stress is listed in NMCPHC-IM-OEM			
Ponnoontative Noice Decimeters Decil	from		Certification; Heat	6260.01C as a Reproductive Hazard.			
Representative Noise Dosimetry Results			Stress Training, Flag				
launch & recovery/aircraft maintenance			System, Hydration,				
activities, for VMFA-533, 19 Aug 15; a	an ici		Work Rest Cycles.				
VMFA-224 16 Jun 15 (Marine Corps	0.5						
Occupational Exposure Level (MCOEL) =	85		PPE: CEOD 9 Bomb Suit,				
dB(A) Time Weighted Average (TWA) and			Ballistic face shield				
calculated SEG exposure is 94.5 dB(A).			and Kevlar gloves.				
(1) Noise							
(2) Explosive Detonation							
<ul><li>(2) Explosive Detonation</li><li>(3) Lead</li></ul>							
(2) Explosive Detonation							

WORKPLACE HAZARD ASS	WORKPLACE HAZARD ASSESSMENT				DATE: 10 JAN 2017			
RECORDED BY: E. L. RANCHES			SUPERVISOR: MS	GT DIAZ				
INSTALLATION MARINE CORPS AIR STATION				8-9041				
BUILDING NUMBER: BLDG 2091			TOTAL PERSONNEL: 8	TOTAL PERSONNEL: 8 GS: 0 CONTR: 0				
SHOP NAME: MCAS EXPLOSIVE ORDNANCE D	ISPOSAL			MALE: MIL: 8 GS: 0 CONTR: 0				
TH TYPE/DATE 2. YEAR DOE'HRS CATEGORY 2.			0 TTM: 3 TAMET	GS 0 CONTR:	0			
SHOP OPERATIONS: No changes from previous s	urvev. The shop	is responsib						
incendiary devices and bombs. Personnel are								
aircraft laden with ordnance. EOD also resp								
counties and airports. Every 2 months perso		-	5 1 1		2			
of any unexploded ordnance in a remote bombing range. EOD personnel use radiology in examining bombs and other explosives. There are 3 MNSD 31								
personnel attached to MCAS. No changes in o					T			
±	DURATION/	NUMBER OF	CONTROLS					
PROCESS/OPERATIONS AND STRESSOR/HAZARD	FREQUENCY	WORKERS	(1)	EXP	OSURE ASSESSMENT (2)			
Administrative Operations: Office	1-4 hrs./day	8	USED/REQUIRED:	Acceptable. N	No reports of discomfort have			
environment (computers and keyboarding)	keyboarding			been reported	for these tasks.			
comprise the majority of work evolutions.			ADM: Ergonomics,	-				
Personnel have task variety (keyboarding,			General Awareness,	Heavy (lifting	g over 25 pounds) and			
filing, phone, oversight activities, etc.)			Work/Rest Cycle.		nding are listed in NMCPHC-IM-			
No worker performs dedicated data entry					April 2010 as developmental			
operations. The only heavy lifting			ENG: Carts, Hand	Reproductive 1				
operations performed are rare supply			trucks, Ergo Chairs,					
operations with the heaviest item moved a			Workstations.					
box of copy paper (~40 lbs.) When new								
computer equipment is installed or								
delivered, workers utilize carts to								
transport such equipment.								
cranspore such equipment.								
1. Static Posture								
2. Work/Rate Repetition								
	1. USE	THE FOLLOWIN	G CONTROL CODES:					
ADM - ADMINISTRATI			ONAL PROTECTIVE EQUIPME	NT TSO - TSOLAT	TON			
			ERING CONTROLS LV - LC		1011			
HCP - HEARING CONSERVATION				SPIRATORY PROTECT	TON PROGRAM			
					1011 1100111			
	2. USE	THE FOLLOWIN	G EXPOSURE CODES:					
ACCEPTABLE-ONE WHERE THE	IH WILL NOT EXP	ECT THE SEG,	ON AVERAGE, TO BE EXPOSI	ED ABOVE THE SELF	CTED OEL.			
UNCERTAIN-ADDITIONAL DATA NEED TO BE COLLECT	ED TO CLARIFY TH	E EXPOSURE AS	SESSMENT. THE IH SHOUL	D MAKE AN INTERIM	EXPOSURE ASSESSMENT BASED ON			
0	BSERVATION OF THE	PROCESS AND	OR PROFESSIONAL JUDGEME	NT.				
UNACCEPTABLE-ONE WHERE	THE IH WILL EXPER	CT THE SEG, C	N AVERAGE, TO BE EXPOSE	D ABOVE THE SELEC	TED OEL.			
	SKIN-THE MATER	RIAL POSES A :	SKIN ABSORPTION HAZARD.					
REPR	RO HAZARD-THE MAT	ERIAL IS A RE	COGNIZED REPRODUCTIVE H	AZARD.				
CARCINOGEN-THE MATE	RIAL CONTAINS >0	.1% OF AN OSH	A, ACGIH, IARC, OR NTP-1	RECOGNZED CARCINO	GEN.			
			VEILLANCE SUMMARY	100000				
WORK OPERATION/TASK	RECOMMENDE	D MEDICAL PRO	U-RAM	MEDICAL	ESTIMATED NUMBER OF WORKERS			
				PROGRAM NUMBER				
	Explosive 1	Handler		721	8			
Explosives								
-			tor	720	8			
-	Explosive '	Vehicle Opera	1001					
-		Vehicle Opera		716	8			
Explosives transport CBRNE	Respirator	User Certifi	cation Exam		8			
Explosives transport CBRNE	Respirator		cation Exam	716	8			
- Explosives transport	Respirator Hazardous M	User Certifi	cation Exam		-			

	WORKPLACE HAZARD ASSESSMENT	DATE: 3 JAN 2017
RECORDED BY:	E. L. RANCHES	SUPERVISOR: WALTER MCCALL
INSTALLATION:	MARINE CORPS AIR STATION	PHONE: 228-6008/7347
BUILDING NUMBER:	BLDG 429/BLDG 1270	TOTAL PERSONNEL: 6 GS: 4 CONTR: 0
SHOP NAME:	MCAS HAZARD MINIMIZATION CENTER	MALE: MIL: 2 GS: 3 CONTR: 0
IH TYPE/DATE	2 YEAR DOEHRS CATEGORY 3	FEMALE:MIL 0 GS 1 CONTR: 0

SHOP OPERATIONS: Personnel are responsible for requisition, receipt, storage and minimization of hazmat at MCAS. Receive empty containers and partially used spray paint for final disposal. Review and manages authorization of command Authorized Users List. There is no change in operations during this survey.

PROCESS/OPERATIONS AND STRESSOR/HAZARD	DURATION/ FREQUENCY	NUMBER OF WORKERS	CONTROLS (1)	EXPOSURE ASSESSMENT (2)
<ul> <li>Weapons Qualification Operations: All Marine AD personnel are required to perform weapons qualifications annually. "The U.S. Army reports M-4 Carbine (5.56 mm) produced peak sound pressure levels (SPLs) as high as 165. Peak noise levels of 160 dBP and above are known to cause immediate physical trauma.</li> <li>Workers should be trained to recognize noise sources within the command and to wear appropriate level of Hearing Protective Devices (HPD) in noise hazardous areas.</li> <li>(1)Noise (2)Lead</li> <li>Per Marine Corps Order 6260.3A Marine Corps Hearing Conservation Program 26 Sep 2016, all active duty personnel shall be enrolled in the HCP.</li> </ul>	<pre>2-4 hrs./day, 1x/ year for rifle qualification for military personnel. 1-2 hrs./day, 1x/ year for pistol qualification for military personnel.</pre>	6	USED/REQUIRED: <u>PFE</u> : Naval Hospital Beaufort Audiologist has recommended that <u>the double-sided</u> <u>combat arms ear</u> <u>plugs (CAEP)</u> are used by range personnel when working inside a 75 ft. radius of the active firing range. <u>ADM:</u> HCP Training; Personal Hygiene (handwashing), Lead Safety Training, HAZCOM Training.	Unacceptable for noise. Based on statistical evaluation of measured noise dosimetry and impulse noise above 140 dB(P). Acceptable for lead. Based on limited frequency and duration of exposure. Ensure that workers fully participate in the HCP which includes annual HCP training; annual audiograms; labeling of noise hazardous equipment and areas; and the use of appropriate hearing protective devices. Noise is listed as a fetal developmental Hazard in NVCPHC-TM-OEM 6260.1C Reproductive And Developmental Hazards. Lead is listed in NVCPHC-TM-OEM 6260.01C April 2010 as a Reproductive Hazard.
Supplies/Material Handling: Operation of diesel powered forklifts in the warehouse. Minor potential for Diesel Funes and Carbon Monoxide as Several floor fans allow the circulation and evacuation of contaminated air in the warehouse. The door gates on both ends of the warehouse are kept open allowing air for cross sectional ventilation. Manual handling of some supplies. Enterprise Safety Application and Management Systems (ESBMS) is a base wide media resource to inform management of any incident/complaint of potential or case of occupational injury. All MCAS personnel possess an account for this system. <ol> <li>Noise</li> <li>Forceful Exertion</li> <li>Work/Rate Repetition</li> <li>Diesel Funes</li> <li>Carbon Monoxide</li> </ol>	2-4 hours a day.	6	PFE: Single hearing protection for 85 dBA or greater. ENG: Forklifts, pallet jacks, carts. DV: Floor fans are used to circulate the air in the warehouse. ADM: Forklift Operator Certification, HAZMAT Training, Work/rest cycle and Ergonomics, General Training.	increase the risk of hearing loss. Acceptable. Duration of tasks and regularity of exposure minimize the potential for exposure. Heavy (lifting over 25 pounds) and prolonged standing are listed in MCHC-TM-OEM 6260.01C April 2010 as developmental Reproductive Hazards. Noise is listed as a fetal developmental Hazard in NCPHC-TM-OBM 6260.1C Reproductive And Developmental Hazards. Carbon Monoxide is listed in NMCPHC- TM-CEM 6260.01C April 2010 as a Reproductive Hazard. Carbon monoxide is a potential ototoxic which can increase the risk of hearing loss.
HAZ Waste Disposal Operations: Processing collected partially used spray paint cans using a self-contained mechanical puncture device. This is an unattended process but the initial activation of the machine releases gas and fumes in minute amount at short duration. One civilian personnel opted to be in Respiratory Protection Program for humanitarian reason. (1) Toluene, (2) Xylene (3) Methyl Ethyl Ketone (4) Ethyl benzene	10 minutes a day, per quarter.	3	USED/REQUIRED: <u>DV</u> : Outdoors. <u>PPE</u> : Nitrile gloves, Face shields, Half face respirator. <u>ENG</u> : Enclosed process.	Acceptable. An enclosed mechanical device is used for disposing the partially used aerosol paint cans. Toluene, benzene and xylene are listed in NMCPHC-TM-OEM 6260.01C April 2010 as Reproductive Hazards. Benzene is a known human carcinogen per ACGIH. Ethyl benzene is a human carcinogen listed by TARC.

	WORKPLACE HAZARD ASSESSMENT	DATE: 3 JAN 2017
RECORDED BY:	E. L. RANCHES	SUPERVISOR: WALTER MCCALL
INSTALLATION:	MARINE CORPS AIR STATION	PHONE: 228-6008/7347
BUILDING NUMBER:	BLDG 429/BLDG 1270	TOTAL PERSONNEL: 6 GS: 4 CONTR: 0
SHOP NAME:	MCAS HAZARD MINIMIZATION CENTER	MALE: MIL: 2 GS: 3 CONTR: 0
IH TYPE/DATE	2 YEAR DOEHRS CATEGORY 3	FEMALE:MIL 0 GS 1 CONTR: 0

SHOP OPERATIONS: Personnel are responsible for requisition, receipt, storage and minimization of hazmat at MCAS. Receive empty containers and partially used spray paint for final disposal. Review and manages authorization of command Authorized Users List. There is no change in operations during this survey.

PROCESS/OPERATIONS AND STRESSOR/HAZARD	DURATION/ FREQUENCY	NUMBER OF WORKERS	CONTROLS (1)	EXPOSURE ASSES	SMENT (2)
Administrative Operations: Office environment (computers and keyboarding) comprise the majority of work evolutions. Personnel have task variety (keyboarding, filing, phone, oversight activities, etc.) No worker performs dedicated data entry operations. The only heavy lifting operations performed are rare supply operations with the heaviest item moved a box of copy paper (~40 lbs.) When new computer equipment is installed or delivered, workers utilize carts to transport such equipment.	1–4 hrs./day keyboarding	2	USED/REQUIRED: <u>ADM</u> : Ergo Training, Task Variety, Breaks. <u>ENG</u> : Carts, Hand trucks, Ergo Chairs, Workstations.	Acceptable. No report have been reported for <u>Heavy (lifting over 25</u> prolonged standing are <u>MCPHC-IM-OEM 6260.010</u> developmental Reproduc	these tasks. pounds) and listed in April 2010 as
1. Static Posture 2. Work/Rate Repetition					
HCP - HEARING CONSERVATION PROGRAM ACCEPTABLE-ONE WHERE THE IH WILL UNCERTAIN-ADDITIONAL DATA NEED TO BE COLLECTED TO ( ON OBSERVAT UNACCEPTABLE-ONE WHERE THE IH W SKIN-T	ATION ENG – EN SEG – SIMILARI 2. USE THE FOLL NOT EXPECT THE S CLARIFY THE EXPOS ILL EXPECT THE S THE MATERIAL POSE HTHE MATERIAL IS	GINEERING LY EXPOSED OWING EXPO SEG, ON AVE URE ASSESS SS AND/OR I DG, ON AVE S A SKIN A A RECOQUIZ	SURE CODES: TRAGE, TO BE EXPOSED AB MENT. THE IH SHOULD M ROFESSIONAL JUDGEMENT. RAGE, TO BE EXPOSED ABC BSORPTION HAZARD. ZED REPRODUCTIVE HAZARD	VENTILATION NORY PROTECTION PROGRAM NOVE THE SELECTED OEL. AKE AN INTERIM EXPOSURE . ME THE SELECTED OEL.	ASSESSMENT BASED
	WORK SHOP MEDICAL		· · ·		
WORK OPERATION/TASK	RECOM	MENDED MED	ICAL PROGRAM	MEDICAL PROGRAM NUMBER	ESTIMATED NUMBER OF WORKERS
Forklift Operation	Forkl	ift Operat	or	710	3
Supplies/Materials Handling- Puncturing aerosol can to disposal.	s prior Respi	ratory Pro	tection Program	716	1
Weapons qualification/Flight operations (Active Dut personnel). There are civilian personnel who remain program due to manifestation of possibly work relate hearing loss and two active duty personnel.	n in the	ng Conserv	ation Program	503	4

WORKPLACE HAZARD ASSESSMENT		DAT	E: 09 JAN 2017			
RECORDED BY: E. L. RANCHES			ERVISOR: GARY I	DUKES		
INSTALLATION: MARINE CORPS AIR STATION BUILDING NUMBER: 1205		-	PHONE: 228-6461 TOTAL PERSONNEL: 0 GS 8 CONTR: 0			
SHOP NAME: MCAS NATURAL RESOURCES ENVIRONMENTAL	AFFAIRS OFFICE		MALE: MIL: 0 GS	8 CONTR: 0		
(NREAO) RECYCLING CENTER			FEMALE:MIL 0 GS	0 CONTR: 0		
IH TYPE/DATE 2 YEAR DOEHRS CATEGORY 2						
<b>SHOP OPERATIONS:</b> The shop receives prepackaged wet a to runway actively used as takeoff and landing area b						
Operates a bailer for scrap paper products for recycl				s for manyar spirits and crean ups.		
	DURATION/	NUMBER	CONTROLS			
PROCESS/OPERATIONS AND STRESSOR/HAZARD	FREQUENCY	OF WORKERS	(1)	EXPOSURE ASSESSMENT (2)		
<ul> <li>Recycle Multiple Operations: Processing hazardous waste for final disposal. Operates a bailer for recycled paper products. Work center is in close proximity to aircraft runway where noise reading outside the building was at or above 85 dB during takeoff and landing. NREAO personnel conduct inspection of flightline HAZMAT collection site.</li> <li>Collection and processing of aerosol paint cans containing primer/Isocyanates and organic solvents. An enclosed mechanical device is used for disposing the partially used aerosol paint cans. Paints can contain: Isocyanates, Organic Solvents (MEK, Toluene, and Xylene) and only exposure would be accidental.</li> <li>Inspection of satellite HAZMAT collection site and handling of containers with variety of chemicals and hazardous waste.</li> <li>Representative Noise Dosimetry Results from launch &amp; recovery/aircraft maintenance activities, for WER-533, 19 Aug 15; and WER-224 16 Jun 15 (Marine</li> </ul>	minutes/day, depending on waste processing needs.		USED/REQUIRED: <u>ENG</u> : Enclosed mechanical device is used for disposing the partially used aerosol paint cans. <u>DV</u> - Natural Ventilation. <u>PPE</u> : Nitrile Gloves, Full Face Shields; Single Hearing Protection (Plugs OR miffs) are required when noise levels are 85-103 dB(A); Double protection when needed.	<pre>Unacceptable for noise. Based on noise survey results exceeding the Marine Corps Occupational Exposure Limit (MOCEL) of 85 dBA, 8-hour time-weighted average. Acceptable all others. Based on limited duration and quantity of exposure. Noise is listed in NMCPHC-TM-CEM 6260.01C April 2010 as a Reproductive Hazard. Heavy lifting is listed in NMCPHC-TM- CEM 6260.01C April 2010 as a reproductive and/or developmental hazard. Toluene and Xylene are listed in NMCPHC-TM-CEM 6260.01C April 2010 as a Reproductive Hazards.</pre>		
<ul> <li>(a) Noise</li> <li>(a) Incidental chemical splash</li> <li>(a) Dynamic Posture</li> <li>(a) Dynamic Response: Hazardous Waste Spill</li> </ul>	Incidental.	8	ADM: Ergonomics Training and Work/rest cycle, HAZWAT Training.	<b>Uncertain:</b> The exposure level when		
Response worker. Can be exposed to Benzene, Toluene, Xylene, Kerosene (JP5), and Unidentified Chemical in an Incident. (1) Incidental chemical splash	2-4 hours.		<u>PPE</u> : Half face respirator with organic vapor cartridges and HEPA filters, Nitrile gloves, Tyvek suit.	responding to HAZMAT spill is unknown thereby requiring full protection and enrolment in appropriate occupational specialty medical exam. Benzene is recognized as carcinogen. Toluene, benzene and xylene are listed in NMCPHC-TM-CEM 6260.01C April 2010 as Reproductive Hazards.		
Administrative Operations: Office environment (computers and keyboarding) comprise the majority of work evolutions. Personnel have task variety (keyboarding, filing, phone, oversight activities, etc.) No worker performs dedicated data entry operations. The only heavy lifting operations performed are rare supply operations with the heaviest item moved a box of copy paper (~40 lbs.) When new computer equipment is installed or delivered, workers utilize carts to transport such equipment.	1-4 hrs./day keyboarding.	8	USED/REQUIRED: <u>ADM</u> : Ergo Training, Task Variety, Breaks. <u>ENG</u> : Carts, Hand trucks, Ergo Chairs, Workstations.	Acceptable. No reports of disconfort have been reported for these tasks. <u>Heavy (lifting over 25 pounds) and</u> prolonged standing are listed in <u>NMCPHC-IM-OEM 6260.01C April 2010 as</u> <u>developmental Reproductive Hazards.</u>		
(1) Static Posture (2) Work/Rate Repetition						
	1. USE THE FOLL					
ADM - ADMINISTRATIVE CONTRO			OTECTIVE EQUIPMENT			
DV - DILUTION VENTILA HCP - HEARING CONSERVATION PROCRAM						
HCP - HEARING CONSERVATION PROGRAM SEG - SIMILARLY EXPOSED GROUP RPP -RESPIRATORY PROTECTION PROGRAM						

2. USE THE FOLLOWING EXPOSURE CODES:

#### ACCEPTABLE-ONE WHERE THE IH WILL NOT EXPECT THE SEG, ON AVERAGE, TO BE EXPOSED ABOVE THE SELECTED OEL. UNCERTAIN-ADDITIONAL DATA NEED TO BE COLLECTED TO CLARIFY THE EXPOSURE ASSESSMENT. THE IH SHOULD MAKE AN INTERIM EXPOSURE ASSESSMENT BASED ON OBSERVATION OF THE PROCESS AND/OR PROFESSIONAL JUDGEMENT. UNACCEPTABLE-ONE WHERE THE IH WILL EXPECT THE SEG, ON AVERAGE, TO BE EXPOSED ABOVE THE SELECTED OEL. SKIN-THE MATERIAL POSES A SKIN ABSORPTION HAZARD. REPRO HAZARD-THE MATERIAL IS A RECOGNIZED REPRODUCTIVE HAZARD. CARCINOGEN-THE MATERIAL CONTAINS >0.1% OF AN OSHA, ACGIH, IARC, OR NTP-RECOGNZED CARCINOGEN. WORK SHOP MEDICAL SURVEILLANCE SUMMARY WORK OPERATION/TASK RECOMMENDED MEDICAL PROGRAM MEDICAL PROGRAM ESTIMATED NUMBER OF WORKERS NUMBER Forklift operation Forklift Operator 710 8 711 Hazardous waste spill responder Hazardous Waste Workers 8 Respirator User Certification Exam 716 Hazardous waste spill responder 8

Hearing Conservation Program

503

8

Flightline operations

	WORKPLACE HAZARD ASSESS	1ENT	I	DATE: 11 JAN 2017	
RECORDED BY:	E. L. RANCHES			SUPERVISOR: MAJO	R BUITERS
INSTALLATION:	MARINE CORPS AIR STATION			228-	
BUILDING NUMBER:	BLDG 584		5	OTAL PERSONNEL: 236	GS: 88 CONTR: 27
SHOP NAME:	MCAS PROVOST MARSHALL OFFICE			MALE: MIL: 121	GS: 86 CONTR: 17
IH TYPE/DATE	2 YEAR DOEHRS CATEGORY 2			FEMALE:MIL 27	GS 2 CONTR: 10
SHOP OPERATIONS:	Personnel are responsible for	enforcing civilian	and military	regulations that prom	ote order and peace to the station and
MCRD Parris Islan	d. Designated as first respond	lers for emergencies	5 <b>.</b>		
PROCESS/OPER#	ATIONS AND STRESSOR/HAZARD	DURATION/ FREQUENCY	NUMBER OF WORKERS	CONTROLS (1)	EXPOSURE ASSESSMENT (2)
Weapons Qualifica	tion Operations: All Marine	2-4 hrs./day,	236	USED/REQUIRED:	Unacceptable for noise. Based on
	required to perform weapons	1x/ year for			statistical evaluation of measured
qualifications an	nually. "The U.S. Army	rifle		PPE: Naval Hospital	noise dosimetry and impulse noise
reports M-4 Carbi	ne (5.56 mm) produced peak	qualification		Beaufort	above 140 dB(P).
sound pressure le	vels (SPLs) as high as 165.	for military		Audiologist has	
	of 160 dBP and above are	personnel.		recommended that	Acceptable for lead. Based on limited
known to cause im	mediate physical trauma.			the double-sided	frequency and duration of exposure.
		1-2 hrs./day,		combat arms ear	
	trained to recognize noise	1x/ year for		plugs (CAEP) are	Ensure that workers fully participate
	e command and to wear	pistol		used by range	in the HCP which includes annual HCP
	of Hearing Protective	qualification		personnel when	training; annual audiograms; labeling
Devices (HPD) in :	noise hazardous areas.	for military		working inside a 75 ft. radius of the	of noise hazardous equipment and
(1)Noise		personnel.		active firing	areas; and the use of appropriate hearing protective devices.
(1)Noise (2)Lead				range.	hearing protective devices.
(2)1880				range.	Noise is listed as a fetal
Per Marine Coms	Order 6260.3A Marine Corps			ADM: HCP Training;	developmental Hazard in NMCPHC-IM-OFM
	ion Program 26 Sep 2016, all			Personal Hygiene	6260.1C Reproductive And Developmental
	nnel shall be enrolled in the			(handwashing), Lead	
HCP.				Safety Training,	
				HAZCOM Training.	Lead is listed in NMCPHC-IM-OEM
					6260.01C April 2010 as a Reproductive
					Hazard.
					Lead is a potential ototoxic which can
					increase the risk of hearing loss.
	erations: Office environment	1-4 hrs./day	236	USED/REQUIRED:	Acceptable. No reports of discomfort
· -	yboarding) comprise the	keyboarding.			have been reported for these tasks.
	evolutions. Personnel have			ADM: Ergonomics,	
	boarding, filing, phone,			General Awareness.	Heavy (lifting over 25 pounds) and
	ies, etc.) No worker performs			Task Variety,	prolonged standing are listed in
	try operations. The only rations performed are rare			Breaks.	NMCPHC-IM-OEM 6260.01C April 2010 as developmental Reproductive Hazards.
	with the heaviest item moved			ENG: Carts, Hand	developmental reproductive nazaros.
	er (~40 lbs.) When new			trucks, Ergo	
	t is installed or delivered,			Chairs,	
	arts to transport such			Workstations.	
equipment.	·····				
(1) Static Posture					
(2)Work/Rate Repe	TITION				
					1

<ul> <li>Protective Service Operations. Watch standing at sentry gates to the base and flightline or patrolling the base perimeter. Hazardous noise is intermittent in intensity and duration during flight operations. Normal flight operations start at 0900 to 1700.</li> <li>Representative Noise Dosimetry Results from launch &amp; recovery/aircraft maintenance activities, for VMFA-533, 19 Aug 15; and VMFA-224 16 Jun 15 (Marine Corps Occupational Exposure Level (MCOEL) = 85 dB(A) Time Weighted Average (TWA) and calculated SEG exposure is 94.5 dB(A).</li> <li>Working outside during extreme temperatures. Personnel are able to take breaks as desired in an air conditioned or shaded space. Heat Injury prevention training is conducted annually with topics such as recognition, type, treatment and prevention of heat stress provided by medical personnel.</li> <li>Watch standers are rotated every 7 hours.</li> <li>(1) Static Posture</li> <li>(2) Work/Rate Repetition</li> </ul>	8-10 hours/day For Military Personnel-2 days on which is preceded by two days off. For Civilian -6 days (80 hours) duty in two weeks.	236	USED/REQUIRED: PPE: Single Hearir Protection (Plugs OR Muffs) is required when nois levels are 85-103 dB(A) on flightline and hangar area during flight operations. <u>ADM</u> : Ergonomics, General Awareness, Heat /Cold Stress Training.	data indica NOEL; howeve Program enr job special: limited free exposure. <u>Noise is lii 6260.01C Ap</u> <u>Hazard.</u> <u>Heat Stress</u> <u>6260.01C Ap</u> <u>Hazard.</u> <u>Heaty lifti</u> <u>CEM 6260.01</u>	e for noise. The resultant te exposures below the er, Hearing Conservation olment is required for the ty as per NMCPHC. for all others. Based on quency and duration of sted in NMCPHC-IM-OEM wil 2010 as a Reproductive is listed in NMCPHC-IM-OEM wil 2010 as a Reproductive ng is listed in NMCPHC-IM- C April 2010 as a e and/or developmental
<ul> <li>(2) WORK/ROUS Repetition</li> <li>(3) Noise</li> <li>(4) Heat Stress</li> <li>(5) Cold Stress</li> </ul>					
Environmental Response: First responder response worker. Can be incidentally exposed to Benzene, Toluene, Xylene, Kerosene (JP5), and Unidentified Chemical in an Incident. (1) Incidental chemical splash	Incidental. 2-4 hours.	236	USED/REQUIRED: <u>PPE</u> : Half face respirator with organic vapor cartridges and HEE filters, Nitrile gloves, Tyvek suit	A responding thereby requestions of the special tyme of the special type of the specia	The exposure level when to HAZMAT spill is unknown uiring full protection and n appropriate occupational edical exam. recognized as carcinogen. Xylene are listed in EM 6260.01C April 2010 as a e Hazard.
Weapons & Orchance Training Operations. Handling of explosives/munitions during	Rare, as needed.	3	USED/REQUIRED:		This is a non-exposure al examination.
<ul><li>(1) Explosive Detonation.</li></ul>					examination is ensuring alifications for the
1. USE THE FOLLOWING CONTROL CODES: ADM - ADMINISTRATIVE CONTROLS PPE - PERSONAL PROTECTIVE EQUIPMENT ISO - ISOLATION DV - DILUTION VENTILATION ENG - ENGINEERING CONTROLS LV - LOCAL VENTILATION HCP - HEARING CONSERVATION PROGRAM SEG - SIMILARLY EXPOSED GROUP RPP -RESPIRATORY PROTECTION PROGRAM					
UNACCEPTABLE-ONE WHERE THE	IO CLARIFY THE EXPO IVATION OF THE PROCE IH WILL EXPECT THE IKIN-THE MATERIAL PC AZARD-THE MATERIAL :	E SEG, ON AVER SURE ASSESSMEN SS AND/OR PRO SEG, ON AVERA SES A SKIN AB IS A RECOGNIZE	AGE, TO BE EXPOSED . NT. THE IH SHOULD M FESSIONAL JUDGEMENT. GE, TO BE EXPOSED A SORPTION HAZARD. ED REPRODUCTIVE HAZA	AKE AN INTERIM E BOVE THE SELECTE RD.	XPOSURE ASSESSMENT BASED ON D OEL.
	WORK SHOP MEDIC	AL SURVEILLAN	ICE SUMMARY		
WORK OPERATION/TASK	RECOMMENDER	MEDICAL PROG		NEDICAL PROGRAM NUMBER	ESTIMATED NUMBER OF WORKERS
Protective Service	Respirator	User Certific	cation Exam	716	236
Emergency responder		or Body Fluids	Medical	178	236
Weapons & Ordnance/Explosive detection training	Surveilland Explosive B			721	3

Small arms firing outdoor-Weapons	Hearing Conservation Program	503	236-
qualification/Protective Service			

RECORDED BY: E. L. RANCHES INSTALLATION: MARINE CORPS AIR STATION BUILDING NUMBER: BLDG 1007		SUPERVISO	R: CWO ENINO	
BUILDING NUMBER: BELG 1007 SHOP NAME: MCAS STATION FUELS/FUEL LAB IH TYPE/DATE 2 YEAR DOEHRS CATEGORY 2		MAL	228-7448/638 SONNEL: 34 GS: 10 E: MIL: 20 GS: 9 ALE:MIL 4 GS 1	
SHOP OPERATIONS: Personnel are responsible for s fuels collected from aircrafts and fuel stations. first responders during fuel spills.		oution of fuel	s. Task includes deliv	vering fuels in the flight line. Test
PROCESS/OPERATIONS AND STRESSOR/HAZARD	DURATION/ FREQUENCY	NUMBER OF WORKERS	CONTROLS (1)	EXPOSURE ASSESSMENT (2)
Weapons Qualification Operations: All Marine AD personnel are required to perform weapons qualifications annually. "The U.S. Army reports M-4 Carbine (5.56 mm) produced peak sound pressure levels (SPLs) as high as 165. Peak noise levels of 160 dBP and above are known to cause immediate physical trauma. Workers should be trained to recognize noise sources within the command and to wear appropriate level of Hearing Protective Devices (HPD) in noise hazardous areas. (1)Noise (2) Lead Per Marine Corps Order 6260.3A Marine Corps Hearing Conservation Program 26 Sep 2016, all active duty personnel shall be enrolled in the HCP.	<pre>1x/ year for rifle qualification for military personnel. 1-2 hrs./day, 1x/ year for pistol qualification for military personnel.</pre>		PPE: Naval Hospital Beaufort Audiologist has recommended that the double-sided combat arms ear plugs (CAEP) are used by range personnel when working inside a 75 ft. radius of the active firing range. <u>ADM:</u> HCP Training; Personal Hygiene (handwashing), Lead Safety Training, HAZCOM Training.	<pre>statistical evaluation of measured noise dosimetry and impulse noise above 140 dB(P). Acceptable for lead. Based on limited frequency and duration of exposure. Ensure that workers fully participate in the HCP which includes annual HCP training; annual audiograms; labeling of noise hazardous equipment and areas; and the use of appropriate hearing protective devices. Noise is listed as a fetal developmental Hazard in INCPHC-TM-OEM 6260.1C Reproductive And Developmental Hazards. Lead is listed in NMCPHC-TM-OEM 6260.0IC April 2010 as a Reproductive Hazard. Lead is a potential ototoxic which can increase the risk of hearing loss.</pre>
Administrative Operations: Office environment (computers and keyboarding) comprise the majority of work evolutions. Personnel have task variety (keyboarding, filing, phone, oversight activities, etc.) No worker performs dedicated data entry operations. The only heavy lifting operations performed are rare supply operations with the heaviest item moved a box of copy paper (~40 lbs.) When new computer equipment is installed or delivered, workers utilize carts to transport such equipment. Enterprise Safety Application and Management Systems (ESAMS) is a base wide media resource to inform management of any incident/ complaint of potential or case of occupational injury. All MCAS personnel possess an account for this system. Wajority of work station that has no water fall edge features on work table top. Sharp edges may cause contact stress while typing. Most of the chairs are adjustable with adequate lumbar support. Procurement of furniture and works station should specify the ergonomic design features. (1) Static Posture	2 hours/day.	34	USED/REQUIRED: <u>ADM</u> : Ergonomics, General Awareness, Task Variety, Breaks. <u>ENG</u> : Carts, Hand trucks, Ergo Chairs, Workstations.	Acceptable. No complaint of any cumulative stress injury. Heavy (lifting over 25 pounds) and prolonged standing are listed in NMCPHC- IN-CEM 6260.01C April 2010 as developmental Reproductive Hazards.

Fuel Lab Operations. Incidental exposure to fuels which can contain Benzene, Toluene, Xylene (JP5) during Fuel analysis in laboratory. (1) Kerosene (2) Benzene (3) Toluene (4) Xylene (5) (JP5)	2 Hours/day.	23 USED/REQUIRED: ENG: DV, Fume Ventilation He Emergency eyew stations. <u>PPE</u> : Nitrile Gloves, splash goggles, Rubbe aprons.	dilution v exposure p od, rash <u>Toluene/Xy</u> <u>OEM 6260.0</u> <u>Reproducti</u>	lene is listed in NMCPHC-IM- 1C April 2010 as a		
1. USE THE FOLLOWING CONTROL CODES: ADM - ADMINISTRATIVE CONTROLS PFE - PERSONAL PROTECTIVE EQUIPMENT ISO - ISOLATION DV - DILUTION VENTILATION ENG - ENGINEERING CONTROLS IV - LOCAL VENTILATION HCP - HEARING CONSERVATION PROGRAM SEG - SIMILARLY EXPOSED GROUP RPP -RESPIRATORY PROTECTION PROGRAM 2. USE THE FOLLOWING EXPOSURE CODES: ACCEPTABLE-ONE WHERE THE IH WILL NOT EXPECT THE SEG, ON AVERAGE, TO BE EXPOSED ABOVE THE SELECTED OEL. UNCERTAIN-ADDITIONAL DATA NEED TO BE COLLECTED TO CLARIFY THE EXPOSURE ASSESSMENT. THE IH SHOULD MAKE AN INITERIM EXPOSURE ASSESSMENT BASED ON OBSERVATION OF THE PROCESS AND/OR PROFESSIONAL JUDGEMENT. UNACCEPTABLE-ONE WHERE THE IH WILL EXPECT THE SEG, ON AVERAGE, TO BE EXPOSED ABOVE THE SELECTED OEL. SKIN-THE MATERIAL FORES A SKIN ABSORPTION HAZARD. REPRO HAZARD-THE MATERIAL IS A RECOGNIZED REPRODUCTIVE HAZARD.						
CARCINOGEN-THE MATERIAL CONTAINS >0.1% OF AN OSHA, ACGIH, IARC, OR NTP-RECOGNZED CARCINOGEN. WORK SHOP MEDICAL SURVEILIANCE SUMMARY						
WORK OPERATION/TASK	RECOMMENDED MEDIC	CAL PROGRAM	MEDICAL PROGRAM NUMBER	ESTIMATED NUMBER OF WORKERS		
HAZMAT spill responder	Hazardous Waste W	Norkers/Emergency Responders	711	23		
Weapons qualification/Flight operations	Hearing Conservat	tion Program	503	23		

WORKPLACE HAZARD ASSESS	MENT		DATE: 10 JAN 20	17
RECORDED BY: E. L. RANCHES				O HARRINGTON
INSTALLATION: MARINE CORPS AIR STATION				28-9032
BUILDING NUMBER: 2091			TOTAL PERSONNEL: 15	GS: 0 CONTR: 0
SHOP NAME: MCAS STATION ORDNANCE			MALE: MIL: 13	
IH TYPE/DATE 2 YEAR DOEHRS CATEGORY 2			FEMALE:MIL 01	
SHOP OPERATIONS: The shop is responsible for r	eceipt. storage a	and issue of		
delivered pyrotechnics. Conduct an occasional s				
No changes in operation.	F=0.7 F0=00000000000000000000000000000000000			
		NUMBER		
PROCESS/OPERATIONS AND STRESSOR/HAZARD	DURATION/ FREQUENCY	OF	CONTROLS	EXPOSURE ASSESSMENT (2)
	FREQUENCI	WORKERS	(1)	
Weapons Qualification Operations: All Marine	2-4 hrs./day,	15	USED/REQUIRED:	Unacceptable for noise. Based on
AD personnel are required to perform weapons	1x/ year for			statistical evaluation of measured
qualifications annually. "The U.S. Army	rifle		<u>PPE</u> : Naval Hospital	noise dosimetry and impulse noise
reports M-4 Carbine (5.56 mm) produced peak	qualification		Beaufort	above 140 dB(P).
sound pressure levels (SPLs) as high as 165.	for military		Audiologist has	
Peak noise levels of 160 dBP and above are	personnel.		recommended that	Acceptable for lead. Based on limited
known to cause immediate physical trauma.			the double-sided	frequency and duration of exposure.
	1-2 hrs./day,		combat arms ear	
Workers should be trained to recognize noise	1x/ year for		plugs (CAEP) are	Ensure that workers fully participate
sources within the command and to wear	pistol		used by range	in the HCP which includes annual HCP
appropriate level of Hearing Protective	qualification		personnel when	training; annual audiograms; labeling
Devices (HPD) in noise hazardous areas.	for military		working inside a 75	of noise hazardous equipment and
	personnel.		ft. radius of the	areas; and the use of appropriate
(1)Noise			active firing	hearing protective devices.
(2)Lead			range.	Maine in listed on a Catal
Dan Marine Group Orthur (200) 23 Marine Group			ADM, UCD Training,	Noise is listed as a fetal
Per Marine Corps Order 6260.3A Marine Corps			<u>ADM:</u> HCP Training; Personal Hygiene	developmental Hazard in NMCPHC-IM-OEM
Hearing Conservation Program 26 Sep 2016, all			(handwashing), Lead	6260.1C Reproductive And Developmental
active duty personnel shall be enrolled in the HCP.			Safety Training,	Hazards.
HCP.			HAZCOM Training.	Lead is listed in NMCPHC-IM-OEM
			ing.	6260.01C April 2010 as a Reproductive
				Hazard.
				Lead is a potential ototoxic which can
	0.4	15		increase the risk of hearing loss.
Weapons & Ordnance Operations. Receipt,	2-4 hours/day.	15	USED/REQUIRED:	Unacceptable for noise. Based on
transport, issue of ordnance during flight	nours/day.		ADM: Procedural,	noise survey results exceeding the
operations.			Explosive Handler's	Marine Corps Occupational Exposure
Working in base magazines and delivery of			Exam.	Limit (MCOEL) of 85 dBA, 8-hour time- weighted average.
ordnance to flight line receiving/delivery				weighted average.
point during extreme temperatures.			<u>PPE</u> : Single Hearing	Acceptable all others. Based on
Individuals are trained of self-diagnosis			Protection (Plugs	limited duration and quantity of
(signs, symptoms and treatment) of heat stress			OR Muffs) are required when noise	exposure.
injuries and avail of well-ventilated shaded			levels are 85-103	capobure.
area or air conditioned space in any sign of			dB(A); on	Noise is listed in NMCPHC-IM-OEM
heat related stress.			flightline and	6260.01C April 2010 as a Reproductive
			hangar area during	Hazard.
Representative Noise Dosimetry Results from			flight operations.	
launch & recovery/aircraft maintenance			ADM: Heat/Cold	Heavy lifting is listed in NMCPHC-TM-
activities, for VMFA-533, 19 Aug 15; and VMFA-			Stress Training,	OEM 6260.01C April 2010 as a
224 16 Jun 15 (Marine Corps Occupational			work/rest cycle,	reproductive and/or developmental
Exposure Level (MCOEL) = 85 dB(A) Time			and physical	hazard.
Weighted Average (TWA) and calculated SEG			conditioning;	
exposure is 94.5 dB(A).			Ergonomic Awareness	Heat Stress is listed in NMCPHC-IM-OEM
			Training, Work/Rest	6260.01C April 2010 as a reproductive
Lifting, stooping and handling ammo. Dynamic			Cycle; HVAC, Shade,	and/or developmental hazard.
Posture, Forceful Exertion, Work/Rate			ENG: Use of	
Repetition			forklifts, carts	
			and other weight	
(1) Explosion			bearing equipment	
(2) Noise			minimize the	
(3) Heat			potential for back injury.	
(4) Cold			y•	
(5) Dynamic Posture (6) Forceful Exertion				
<ul><li>(6) Forceful Exertion</li><li>(7) Work/Rate Repetition</li></ul>				
() norring a sepertation		1		

Costing/Painting Operations       Paint products       10       15       USED/FRQUERED:       Acceptable. Limited quantity, irregularity of process and task three day, 3 times a week.         Tolusers. Spray painting labels on amo cans a week.       ENC: USE of chilifts, carts and chilifting Cornosion control and labeling of amunition can and equipment containers. Brateprise Safety Agplication and Management Systems (SWMS) is a base wide media resource for reporting comparison injuries. All MCS personnel possess an account for this system.       Pers Nitrule glower, Splash and Safety Agplication and Management Systems (SWMS) is a base wide media resource for reporting comparison injuries. All MCS personnel possess an account for this system.       Net Expondic, General Awarenes, Work/Rest Cycle, HROOM Training.         (1) Acetore       1. USE THE FOLLOWING CONINCI. CODES:       Net Expondic, General Awarenes, Work/Rest Cycle, HROOM Training.         (3) Tolusone       1. USE THE FOLLOWING CONINCI. CODES:       Net Expondic, General Awarenes, Work/Rest Cycle, HROOM Training.         (4) Dynamic Destrue Work       1. USE THE FOLLOWING CONINCI. CODES:       Net Control Respondic, General Awarenes, Work/Rest Cycle, HROOM Training.         (5) Rate Repetition       1. USE THE FOLLOWING CONINCI. CODES:       Net Control Responder Represention         (1) Acetore       1. USE THE FOLLOWING CONINCI. CODES:       Net Control Responder Respetition         (1) Acetore       Net Control Responder Respondere Responder Responder Responder Respondere							
Toluene. Spray painting labels on amo came and containers for demilitarization. A can of 16 or. 35 ure aerosol paint will last for a week.       3 times a week.       DNS: Use of forklifts, carts and other weight bearing equipment minimize the potential for back injury.       duration with adequate vertilation minimizes the potential for back injury.         Stopping, bending and lifting Corrosion control and labeling of amanition can and equipment containers. Enterprise Safety Application and Management Systems (SSMS) is a base wide media resource for reporting compational injuries. All MCS personnel possess an account for this system.       DNS: Use of forklifts, carts and other weight potential for back injury.       DNS: Use of forklifts, carts a base wide media resource for reporting compational injuries. All MCS personnel possess an account for this system.       DNS: Use of forklifts, carts a base wide media resource for reporting compational injuries. All MCS personnel possess an account for this system.       DNS: Use of forklifts, carts a base wide media resource for reporting compational injuries. All MCS personnel possess an account for this system.       DNS: Use of forklifts, carts and other weight googles.       DNS: Use of forklifts, carts and other weight glows, platsh googles.       DNS: Use of forklift, carts and/or dwelgemental baser/ DNS: USE of Source Source Source Source Source Source Source Not - HARMINISTATIVE CONTROLS NOC A provide Source Source Cart Monagement Source So	Coating/Painting Operations. Paint products		15	USED/REQUIRED:	Accepta	ble. Limited quantity,	
Houses: Guesy painting method and out and can of and containers for demilitarization. A can of le ox. So Sure aerosol paint will last for a week.       Terklifts, carts and other weight bearing equipment minings the potential exposure.       Terklifts, carts and other weight bearing equipment minings the potential exposure.         Stooping, bending and lifting Corrosion control and labeling of amanition can and equipment containers. Butterprise Safety application and Management Systems (ESNK) is a base wide media resource for reporting cocapational injuries. All NAS personnel possess an account for this system. <ul> <li>IPER NILLIA Gloves, Splash goggles.</li> <li>Abstore</li> <li>Methyl Ethyl Ethyl Ethyl Retores (3) Toluens</li> <li>Dynamic Posture Nock (5) Rate Repetition</li> </ul> Ath: Exponentic, General Awareness, Work/Rest. Cycle, HB200M Training.              Haven Lifting is Listed in NCHC-Thy- GEN E260.01C April 2010 as a approxibility and/or developmental possess an account for this system.              In Use The FOLLOWING CONTROL CODES: ALM - ADMINISTRATIVE CONTROLS <li>FEP - FERSING LIGONOM VIEW and/or developmental possess and control for the system Store (3) Toluens</li> <li>UN - DILITION WARITARIA NAN BEE - SIMILARIX ENCOSEE CODES: ALM - ADMINISTRATIVE CONTROLS</li> <li>FEP - EPESNAL FORCETTER EQUIPMENT DV - DILITION WARITARIA NOT BNG STORE ASSESSMENT DV - EXECUTION FORGEN Store Particle Code Were The H H WILL NOT EXPECT THE SEG, ON AVERAGE, TO BE EPROSED ABOVE THE SELECTED CEL. SIMIL-THE MITRETAL ROSS A SUN ASSESSMENT THE IN SHOLING WICE CODES: ALM - ADMINISTRATIVE CONTROLS</li> <li>DE HE FOLLOWING CONTROL SUP ADVERTICE PARTICLE CARE ASSESSMENT DV - DILITION WARE THE H WILL EXPECT THE SEG, ON AVERAGE, TO BE EPROSED ABO</li>	may contain: Acetone, Methyl Ethyl Ketone, and				irregul	arity of process and task	
and contrainers for overilitarization. A can of the set	Toluene. Spray painting labels on ammo cans					n with adequate ventilation	
Week.       Bearing equipment minimize the potential for back injury.       Tabase is listed in NCHC-Dr-OM (200,00C April 2010 as a Reproductive globality of amunition can and equipment containers. Future for sefecty Application and Mangement Systems (SSNR) is a base wide media resource for reporting occupational injuries, All MCR personnel possess an account for this system.       Bearing equipment globes, Splash goggles.       Tabase vide containers. Future globes, Splash goggles.         (1) Accore (2) Methyl Ethyl Retone (3) Toluere (4) Dynamic Posture Work (5) Rate Regetition       1. Use THE FOLLOWING CONES: Nork/Rest Cycle, HAZOM Training,       ADM: Ergonomic, General Awareness, Work/Rest Cycle, HAZOM Training,         1. Use THE FOLLOWING CONFOL CODES: ADM - ADMINISTRATIVE CONTROLS       FFE - FERSONAL PROTECTIVE EQUIPMENT ISO - ISOLATION DV - DILUTION WORTHATION ENG - ENGINEERING CONTROLS ODES: ADM - ADMINISTRATIVE CONTROLS       IV - DILUTION WORTHATION FOR SEC - SULLAWING CONFOLS ODES: ADM - ADMINISTRATIVE CONTROLS       FFE - FERSONAL PROTECTIVE EQUIPMENT ISO - ISOLATION DV - DILUTION WORTHATION FOR SEC - SULLIAVILY EXCORED GRUP REP - FERSIFICATION FORTH SCORES ADORE THE SEC NOTION CONFOLS DV - LOCAL WORTHATION HCP - HEARING CONSERVATION FORTH SEG - SULLIAVILY EXCORED GRUP REP HEARING CONSERVATION FORTH SEG - SULLIAVILY EXCORED GRUP REP - FERSIFICATION FORTH SCORES ADORE THE SELECTED CEL. SULLIARIE ADDITIONAL DRIP NEED TO EE COLLICIED TO CLARIFY THE EXCORED REPOSED ADORE THE SELECTED CEL. SCHU-THE MARCHATHE MILL SUPPORT THE SEG, ON ANERAG, TO EE EXCORED ADORE THE SELECTED CEL. SCHU-THE MARCHATHE MILL SUPPORT THE SEG, ON ANERAG, TO EE EXCORED ADORE THE SELECTED CEL. SCHU-THE MARCHATHE MILL SUPPORT THE SEG, ON ANERAG, TO EE EXCORED ADORE THE SELECTED CEL. SCHU-THE MARCHATINE VOL BAR ASENDARMON TO EE EXCORED ADORE THE SELECTED CEL. SCHU-THE	and containers for demilitarization. A can of	week.		,		es the potential exposure.	
Stooping, bending and lifting Corrosion control and labeling of amunition can and equipment containers. Enterprise Safety Application and Management Systems (SSMS) is a base wide media resource for reporting occapational injuries. All MCRS personnel possess an account for this system.	16 oz. So Sure aerosol paint will last for a						
Stooping, bending and lifting Corrosion control and labeling of amunition can and equipment Containers. Brateprise Safety Application and Management Systems (SSMS) is a base wide media resource for reporting compational injuries. All MCAS personnel possess an account for this system.       pression is a base wide media resource for reporting compational injuries. All MCAS personnel possess an account for this system.       All. Firing is listed in MCPRC-TH- Gen (a 200, 01C April 2010 as a reproductive and/or developmental possess an account for this system.         (1) Acctone (2) Methyl Ethyl Netone (3) Tolume (4) Dynamic Posture Work (5) Rate Repetition       I. Use The Following Control Course: HAZCOM Training.         1. Use The Following Control is on the following Control is the present of the system of the system (5) Rate Repetition       I. Use The Following Control is Present of the system of the system (6) Dynamic Posture Work (7) Rate Repetition         1. Use The Following Control is (7) Present of the system of the system (7) Present of the system of the system of the system of the system (7) Present of the system of the system (7) Present of the system of the system of the system of the system of the system (7) Present of the system of the system (8) Present of the system of the	week.				TOTACIA		
Scooping Defining and Internation can and equipment containers. Entraprise Safety Application and Management Systems (SSMS) is a base wide media resource for reporting compational injuries. All MCSP personnel possess an account for this system.       injury.       FE: Nitrile glowes, Splash goggles.       Heary Lifting is Listed in NCPEC-TW- GM S260.0126 April 2010 as a reproductive and/or developmental page wide media resource for reporting compational injuries. All MCSP personnel possess an account for this system.       ADM: Ergonomic, (Werk/mast Cycle, HAZOM Training.         (1) Acetone (2) Methyl Ethyl Ketone (3) Toluene (4) Dynamic Posture Work (5) Rate Repetition       1. Use The FOLLOWING COMPOL CODES: ALM - ADMINISTRATIVE CONFOLS PE - PERSONL PROTECTIVE EQUIPMENT ISO - ISOLATION DV - DIJUTION VENTIATION HCP - HEARING CONSERVATION PROGRAM SEG - SIMILARLY EXPOSED GROUP RPP -RESPIRATORY PROTECTION PROGRAM 2. Use The FOLLOWING EXPOSED GROUP RPP -RESPIRATORY PROTECTION PROGRAM ACCEPTABLE-ONE WHERE THE IH WILL NOT EXPECT THE SEG, ON AVERAGE, TO BE EXPOSED ABOVE THE SELECTED CEL. UNDERMAN-ADDITIONAL DATA DE COLLECTED TO CLARITY HE EXPCOSURE ASSESSMENT. BASED ON GESERVATION FOR THE PROTECT THE SEG, ON AVERAGE, TO BE EXPOSED ABOVE THE SELECTED CEL. UNDERMAN-ADDITIONE DATA NEED TO CLARITY THE EXPCOSURE ASSESSMENT. BASED ON GESERVATION OF THE PROCESS AND/OR PROFESSIONAL JUDGMENT. UNDEERMAN-ADDITIONE DATA NEED TO CLARITY THE SEG, ON AVERAGE, TO BE EXPOSED ABOVE THE SELECTED CEL. SKIN-THE MITERIAL ORDER A SKIN ABOORTION HEARED. REFEO HAZARD-THE WATERIAL OF AS A SKIN ABOORTION HAZARD. CARCINOGEN-THE MATERIAL OWNERN ALL STREELIZED CEL SKIN-THE ONESCIAL JUDGMENT.         INFORMATION OF THE PROCESS AND/OR PROFESSIONAL JUDGMENT. UNCERTRAIN-ADDITIONAL DATA DET THE MATERIAL OWNERN ALL STREELIZED CEL SKIN-THE MITERIAL ORDER A SKIN ABOORTION HAZARD. CARCINOGEN-THE MATERIAL OWNERN ALL R						<i>IC April 2010 as a Reproductive</i>	
Section for the method resource for reporting comparison and Management Systems (SSMNS) is a base wide media resource for reporting compational injuries. All MCAS personnel possess an account for this system.       HE	Stooping, bending and lifting Corrosion			1	back Hazard		
Application and Management Systems (BSMS) is a base wide media resource for reporting cocupational injuries. All MCX personnel possess an account for this system.          PHE: Nitrile Glows, Splash goggles. MM: Ergenomic, General Awareness, Work/Rest Cycle, H2COM Training.           AM = Ergenomic, General Awareness, Work/Rest Cycle, H2COM Training.          (1) Acetone (2) Methyl Ethyl Ketone (3) Toluane (4) Dynamic Posture Work (5) Rate Repetition           1. Use The FOLLOWING COMPCL CODES: AIM - AMMINISTRATIVE CONTROLS PE - PERSONAL POTECTIVE EQUINENT ISO - ISOLATION UV - DILUTION VENTILATION ENG - BUSINEERING CONTROLS UV - ICOL VENTILATION HCP - HEARING CONSERVATION PROGRAM SEG - SIMILARLY EXPOSUE GROUP REP - RESPIRATORY PROTECTION PROGRAM             L. USE THE FOLLOWING CONTROLS UNCERTAIN-ADDITIONAL DATA NEED TO ECOLLECTED TO CLARIFY THE EXPOSURE ACCES: LUCERTAIN-ADDITIONAL DATA NEED TO ECOLLECTED TO CLARIFY THE EXPOSURE ACCESS UNCERTAIN-ADDITIONAL DATA NEED TO ECOLLECTED TO CLARIFY THE EXPOSURE ASSESSMENT. THE IH SHOLD MAKE AN INTERIM EXPOSURE ASSESSMENT UNCERTAIN-ADDITIONAL DATA NEED TO ECOLLECTED TO CLARIFY THE EXPOSURE ASSESSMENT. THE IH SHOLD MAKE AN INTERIM EXPOSURE ASSESSMENT UNCERTAIN-ADDITIONAL DATA NEED TO ECOLLECTED TO CLARIFY THE EXPOSURE ASSESSMENT. THE IH SHOLD MAKE AN INTERIM EXPOSURE ASSESSMENT UNCERTAIN-ADDITIONAL DATA NEED TO ECOLLECTED TO CLARIFY THE EXPOSURE ASSESSMENT. THE IH SHOLD MAKE AN INTERIM EXPOSURE ASSESSMENT UNCERTAIN-ADDITIONAL DATA NEED TO ECOLLECTED TO CLARIFY THE EXPOSURE ASSESSMENT. THE IH SHOLD MAKE AN INTERIM EXPOSURE ASSESSMENT UNCERTAIN-ADDITIONAL DATA NEED TO ECOLLECTED TO CLARIFY THE EXPOSURE ASSESSMENT. THE IH SHOLD MAKE	control and labeling of ammunition can and			injury.		-	
Application and wangement systems (USAWS) 13 a base wide media resource for reporting occupational injuries. All MCAS personnel possess an account for this system.       Image: Gloves, Splash groups, Splash	equipment containers. Enterprise Safety				Heavy 1	lifting is listed in NMCPHC-IM-	
a Dase Wide media resource for reporting       goggles.       goggles.       reproductive and/or developmental         possess an account for this system.       ALM: Ergonomic,       general Awareness,       wareness,         (1) Acetone       ALM: Ergonomic,       general Awareness,       wareness,         (2) Methyl Ethyl Ketone       H2COM Training.       H2COM Training.       hazard.         (3) Toluene       1. Use THE FOLLOWING CONTROL CODES:       H2COM Training.       hazard.         (4) Dynamic Posture Work       1. Use THE FOLLOWING CONTROL CODES:       H2COM Training.       H2COM Training.         (5) Rate Repetition       1. Use THE FOLLOWING CONTROL CODES:       H2COM Training.       H2COM Training.         (6) Dynamic Posture Work       UV - DILUTION VANITATION ENG = ENSINEERING CONTROL SUP - LOCAL VENTILATION       H2COM Training.         (7) Posture H2COM Training CONTROL CODES:       ALM - AUMINISTRATIVE CONTROL SUP = PERSONAL PROTECTIVE EQUIPMENT ISO - ISOLATION         H2C H2 H2 + CARL MARK MERCHAN PROGRAM SEC - SIMILARLY EXPORED GOOP       H2P - RESPIRATION PROGRAM SEC - SIMILARLY EXPORED GOOP       H2P - RESPIRATION PROGRAM SEC - SIMILARLY EXPORED GOOP         H2C H2 + H2 + CARL MARK MERCHAN PROFEMENTION PROFEMENTION PROFEMENTION PROFEMENTION PROFEMENTIONAL DRA NEED TO BE COLLECTED TO CLARIFY THE EXPOSURE ASSESSMENT. THE IN SHOULD MARE AN INTERIM EXPOSURE ASSESSMENT.       HE IN SHOULD EXPECT THE SEG, ON AVERACE, TO BE EXPOSED ADOVE THE SELECTED CEL.	Application and Management Systems (ESAMS) is				<b>CEM 62</b>	60.01C April 2010 as a	
and a injuries. All MAS personnel       All MAS personnel       All Mareness,         possess an account for this system.       All M: Ergonomic,       General Awareness,         (1) Acetone       Nort/Rest Cycle,       Hazard.         (2) Methyl Ethyl Ketone       Nort/Rest Cycle,       Hazard.         (3) Toluene       Nort/Rest Cycle,       Hazard.         (4) Dynamic Posture Work       Fee - PERSONAL PROTECTIVE EQUIPMENT ISO - ISOLATION         DV - DILIPTION VENTITATION ENG - ENSIDEERING CONTROLS DV - LOCAL VENTILATION       HCP - HEARING CONSERVATION PROGRAM         DV - DILIPTION VENTITATION ENG - SIMILARLY EXPOSURE CODES:       ACCEPTABLE-ONE WHERE THE HWILL NOT EXPECT THE SEG, ON AVERAGE, TO BE EXPOSED ABOVE THE SELECTED CEL.         UNCERTAIN-ADDITIONAL DATA NEED TO BE COLLECTED TO CLARIFY THE EXPOSURE ASSESSMENT.       In H SHOLD MAKE AN INTERIM EXPOSURE ASSESSMENT.         UNCERTAIN-ADDITIONAL DATA NEED TO BE COLLECTED TO CLARIFY THE EXPOSURE ASSESSMENT.       IN HE SELECTED CEL.         UNCERTAIN-ADDITIONAL DATA NEED TO BE COLLECTED TO CLARIFY THE EXPOSURE ASSESSMENT.       IN HE SELECTED CEL.         UNCERTAIN-ADDITIONAL DATA NEED TO BE COLLECTED TO CLARIFY THE EXPOSURE ASSESSMENT.       IN HE SELECTED CEL.         UNCERTAIN-ADDITIONAL DATA NEED TO BE COLLECTED TO CLARIFY THE EXPOSURE ASSESSMENT.       IN HE SELECTED CEL.         UNCERTAIN-ADDITIONAL DATA NEED TO BE COLLECTED TO CLARIFY THE EXPOSURE ASSESSMENT.       IN HE SELECTED CEL.         <	a base wide media resource for reporting				reprodu	active and/or developmental	
Image: Sector Provided State Provid	occupational injuries. All MCAS personnel			yoyyies.	hazard.		
(1) Acetone       Avaragess, Work/Rest Cycle, HAZCOM Training.         (2) Methyl Ethyl Ketone       Image: Construction         (3) Toluene       Image: Construction         (4) Dynamic Posture Work       Image: Construction         (5) Rate Repetition       Image: Construction         Image: Construction       Imag	possess an account for this system.			ADM: Ergonomic			
(2)       Methyl Ethyl Ketone       HAZCOM Training.         (3)       Dynamic Posturee Wock       Image: Control Contrel Control Control Contence Control Contence Control Control Contr							
(3) Toluene       (4) Dynamic Posture Work         (5) Rate Repetition       1. USE THE FOLLOWING CONIFOL CODES:         AIM - ADMINISTRATIVE CONTROLS       PE - PERSONAL FROTECTIVE EQUIPMENT ISO - ISOLATION DV - DILUTION VENTILATION ENG - ENGINEERING CONTROLS IV - LOCAL VENTILATION HCP - HEARING CONSERVATION FORGRAM SEC - SIMILARLY EPROSED GROUP         Q. USE THE FOLLOWING EXPOSURE CODES:         ACCEPTABLE-ONE WHERE THE IH WILL NOT EXPECT THE SEG, ON AVERAGE, TO BE EXPOSED ABOVE THE SELECTED CEL.         UNCERTAIN-ADDITIONAL DATA NEED TO BE COLLECTED TO CLARIFY THE EXPOSURE ASSESSMENT. THE IH SHOULD MAKE AN INTERIM EXPOSURE ASSESSMENT EASED ON OBSERVATION OF THE PROCESS AND/OR PROFESSIONAL JUDGMENT.         UNCERTAIN-ADDITIONAL DATA NEED TO BE COLLECTED TO CLARIFY THE EXPOSURE ASSESSMENT. THE IH SHOULD MAKE AN INTERIM EXPOSURE ASSESSMENT EASED ON OBSERVATION OF THE PROCESS AND/OR PROFESSIONAL JUDGMENT.         UNACCEPTABLE-ONE WHERE THE IH WILL EXPECT THE SEG, ON AVERAGE, TO BE EXPOSED ABOVE THE SELECTED CEL.         SKIN-THE MATERIAL POSES A SKIN ABSORPTION HAZARD.         REPO HOLZAL POT THE SEG ON AVERAGE. TO BE EXPOSED ABOVE THE SELECTED CEL.         SKIN-THE MATERIAL ONTAINS >0.1% OF AN OSHA, ACGIH, IARC, OR NIP-RECORVER ASSESSMENT         EXECUTION/TASK       REPOMENTED MEDICAL SURVEILLANCE SUMMERY         WORK OPERATION/TASK       RECOMMENDED MEDICAL FRORM       MEDICAL PROXMM         Forklift operation       Forklift Operator       710       15	(1) Acetone			Work/Rest Cycle	e,		
(4)       Dynamic Postume Work       . <td>(2) Methyl Ethyl Ketone</td> <td></td> <td></td> <td>HAZCOM Training</td> <td>g.</td> <td></td>	(2) Methyl Ethyl Ketone			HAZCOM Training	g.		
(5) Rate Repetition       1. USE THE FOLLOWING CONTROL CODES:         AIM - ADMINISTRATIVE CONTROLS       PFE - PERSONAL PROTECTIVE EQUIPMENT ISO - ISOLATION DV - DILUTION VENTILATION ENG - ENGINEERING CONTROLS IV - LOCAL VENTILATION DV - DILUTION VENTILATION ENG - ENGINEERING CONTROLS IV - LOCAL VENTILATION HCP - HEARING CONSERVATION PROGRAM SEG - SIMILARLY EXPOSED GROUP RPP -RESPIRATORY PROTECTION PROGRAM         2. USE THE FOLLOWING EXPOSURE CODES:         ACCEPTABLE-ONE WHERE THE IH WILL NOT EXPECT THE SEG, ON AVERAGE, TO BE EXPOSED ABOVE THE SELECTED CEL.         UNCERTAIN-ADDITIONAL DATA NEED TO bE COLLECTED TO CLARIFY THE EXPOSURE ASSESSMENT. THE IH SHOLD MAKE AN INTERIM EXPOSURE ASSESSMENT BASED ON OBSERVATION OF THE PROCESS AND/OR PROFESSIONAL JUDGMENT.         UNACCEPTABLE-ONE WHERE THE IH WILL EXPECT THE SEG, ON AVERAGE, TO BE EXPOSED ABOVE THE SELECTED CEL.         SKIN-THE MATERIAL FORES AND/OR PROFESSIONAL JUDGMENT.         UNACCEPTABLE-ONE WHERE THE IH WILL EXPECT THE SEG, ON AVERAGE, TO BE EXPOSED ABOVE THE SELECTED CEL.         SKIN-THE MATERIAL FORES A SKIN ABSORPTION HAZARD.         REFOR HAZARD-THE WATERIAL FORES A SKIN ABSORPTION HAZARD.         CARCINOGEN-THE MATERIAL CONTAINS >0.1% OF AN OSHA, ACGIH, IARC, OR NIP-RECORDED CARCINGEN.         WORK OPERATION/TASK       RECOMMENDED MEDICAL SURVEILIANCE SUMMERY         MORK CORRANTICOV/TASK       RECOMMENDED MEDICAL FROGRAM NUMBER         Forklift operation       Forklift Operator       710       15	(3) Toluene						
1. USE THE FOLLOWING CONTROL CODES:         AIM - ADMINISTRATIVE CONTROLS       PF = PERSONAL PROTECTIVE EQUIPMENT ISO - ISOLATION         DV - DIJUTION VENTILATION       ENG - ENGINEERING CONTROLS       LV - LOCAL VENTILATION         HCP - HEARING CONSERVATION PROGRAM       SEG - SIMILARLY EXPOSED GROUP       RPP -RESPIRATORY PROTECTION PROGRAM         C. USE THE FOLLOWING EXPOSURE CODES:       ACCEPTABLE-ONE WHERE THE IH WILL NOT EXPECT THE SEG, ON AVERAGE, TO BE EXPOSED ABOVE THE SELECTED OEL.         UNCERTAIN-ADDITIONAL DATA NEED TO BE COLLECTED TO CLARIFY THE EXPOSURE ASSESSMENT.       THE IH SHOULD MAKE AN INTERIM EXPOSURE ASSESSMENT         BASED ON OBSERVATION OF THE PROCESS AND/OR PROFESSIONAL JUDGEMENT.       UNCERTAIN-ADDITIONAL DATA NEED TO BE COLLECTED TO CLARIFY THE EXPOSURE ASSESSMENT.         BASED ON OBSERVATION OF THE PROCESS AND/OR PROFESSIONAL JUDGEMENT.       UNACCEPTABLE-ONE WHERE THE IH WILL EXPECT THE SEG, ON AVERAGE, TO BE EXPOSED ABOVE THE SELECTED CEL.         SKIN-APD-THE MATERIAL IS A SKIN ABSORPTION HAZARD.       SKIN-APD-THE MATERIAL SOES A SKIN ABSORPTION HAZARD.         REPO HAZARD-THE MATERIAL IS A RECOMMIZED REPROJUCTIVE HAZARD.       CARCINOGEN-THE MATERIAL CONTAINS >0.1% OF AN OSHA, ACGIH, IARC, OR NTP-RECONZED CARCINGEN.         WORK OPERATION/TASK         MEDICAL SURVEILIANCE SUMARY         MEDICAL SURVEILIANCE SUMARY         MERCORAM         MEDICAL PROGRAM         MEDICAL SURVEILIANCE SUMA	(4) Dynamic Posture Work						
ALM - ALMINISTRATIVE CONTROLS       PFE - PERSONAL PROTECTIVE EQUIPMENT       ISO - ISOLATION         DV - DILUTION VENTILATION       ENG - ENGINEERING CONTROLS       LV - LOCAL VENTILATION         HCP - HEARING CONSERVATION PROGRAM       SEG - SIMILARLY EXPOSED GROUP       RPP - RESPIRATORY PROTECTION PROGRAM         2.       USE THE FOLLOWING EXPOSURE CODES:       ACCEPTABLE-ONE WHERE THE IH WILL NOT EXPECT THE SEG, ON AVERAGE, TO BE EXPOSED ABOVE THE SELECTED OEL.         UNCERTAIN-ADDITIONAL DATA NEED TO BE COLLECTED TO CLARIFY THE EXPOSURE ASSESSMENT. THE IH SHOULD MAKE AN INTERIM EXPOSURE ASSESSMENT.       THE IN SHOULD MAKE AN INTERIM EXPOSURE ASSESSMENT.         UNACCEPTABLE-ONE WHERE THE IH WILL EXPECT THE SEG, ON AVERAGE, TO BE EXPOSED ABOVE THE SELECTED OEL.       SKIN-THE MATERIAL IS A RECORNIZED REPROJUCTIVE HAZARD.         UNACCEPTABLE-ONE WHERE THE IH WILL EXPECT THE SEG, ON AVERAGE, TO BE EXPOSED ABOVE THE SELECTED OEL.       SKIN-THE MATERIAL IS A RECORNIZED REPROJUCTIVE HAZARD.         UNACCEPTABLE-ONE WHERE THE IH WILL EXPECT THE SEG, ON AVERAGE, TO BE EXPOSED ABOVE THE SELECTED OEL.       SKIN-THE MATERIAL CONTAINS >0.1% OF AN OSHA, ACGIH, IARC, OR NTP-RECORNZED CARCINOGEN.         KERPO HAZARD-THE MATERIAL CONTAINS >0.1% OF AN OSHA, ACGIH, IARC, OR NTP-RECORNZED CARCINOGEN.       ESTIMATED NUMBER OF WORKERS         MORK OFERATION/TASK       RECOMENDED MEDICAL SURVEILLANCE SUMMERY       FROGRAM         MORK OFERATION/TASK       RECOMENDED MEDICAL FROGRAM       MEDICAL       FROGRAM         Forklift operation <t< td=""><td>(5) Rate Repetition</td><td></td><td></td><td></td><td></td><td></td></t<>	(5) Rate Repetition						
ALM - ALMINISTRATIVE CONTROLS       PFE - PERSONAL PROTECTIVE EQUIPMENT       ISO - ISOLATION         DV - DILUTION VENTILATION       ENG - ENGINEERING CONTROLS       LV - LOCAL VENTILATION         HCP - HEARING CONSERVATION PROGRAM       SEG - SIMILARLY EXPOSED GROUP       RPP - RESPIRATORY PROTECTION PROGRAM         2.       USE THE FOLLOWING EXPOSURE CODES:       ACCEPTABLE-ONE WHERE THE IH WILL NOT EXPECT THE SEG, ON AVERAGE, TO BE EXPOSED ABOVE THE SELECTED OEL.         UNCERTAIN-ADDITIONAL DATA NEED TO BE COLLECTED TO CLARIFY THE EXPOSURE ASSESSMENT. THE IH SHOULD MAKE AN INTERIM EXPOSURE ASSESSMENT.       THE IN SHOULD MAKE AN INTERIM EXPOSURE ASSESSMENT.         UNACCEPTABLE-ONE WHERE THE IH WILL EXPECT THE SEG, ON AVERAGE, TO BE EXPOSED ABOVE THE SELECTED OEL.       SKIN-THE MATERIAL IS A RECORNIZED REPROJUCTIVE HAZARD.         UNACCEPTABLE-ONE WHERE THE IH WILL EXPECT THE SEG, ON AVERAGE, TO BE EXPOSED ABOVE THE SELECTED OEL.       SKIN-THE MATERIAL IS A RECORNIZED REPROJUCTIVE HAZARD.         UNACCEPTABLE-ONE WHERE THE IH WILL EXPECT THE SEG, ON AVERAGE, TO BE EXPOSED ABOVE THE SELECTED OEL.       SKIN-THE MATERIAL CONTAINS >0.1% OF AN OSHA, ACGIH, IARC, OR NTP-RECORNZED CARCINOGEN.         KERPO HAZARD-THE MATERIAL CONTAINS >0.1% OF AN OSHA, ACGIH, IARC, OR NTP-RECORNZED CARCINOGEN.       ESTIMATED NUMBER OF WORKERS         MORK OFERATION/TASK       RECOMENDED MEDICAL SURVEILLANCE SUMMERY       FROGRAM         MORK OFERATION/TASK       RECOMENDED MEDICAL FROGRAM       MEDICAL       FROGRAM         Forklift operation <t< th=""><th></th><th></th><th></th><th></th><th></th><th></th></t<>							
DV - DILUTION VENTILATION       ENG - ENGINEERING CONTROLS       LV - LOCAL VENTILATION         HCP - HEARING CONSERVATION PROGRAM       SEG - SIMILARLY EXPOSED GROUP       RPP -RESPIRATORY PROTECTION PROGRAM         L       USE THE FOLLOWING EXPOSURE CODES:       ACCEPTABLE-ONE WHERE THE IH WILL NOT EXPECT THE SEG, ON AVERAGE, TO BE EXPOSED ABOVE THE SELECTED OEL.         UNCERTAIN-ADDITIONAL DATA NEED TO BE COLLECTED TO CLARIFY THE EXPOSURE ASSESSMENT. THE IH SHOULD MAKE AN INTERIM EXPOSURE ASSESSMENT BASED ON OBSERVATION OF THE PROCESS AND/OR PROFESSIONAL JUDGEMENT.         UNACCEPTABLE-ONE WHERE THE IH WILL EXPECT THE SEG, ON AVERAGE, TO BE EXPOSED ABOVE THE SELECTED OEL.         SKIN-THE MATERIAL POSES A SKIN ABSORPTION HAZARD.         REPRO HAZARD-THE MATERIAL IS A RECONIZED REPRODUCTIVE HAZARD.         REPRO HAZARD-THE MATERIAL CONTAINS >0.1% OF AN OSHA, ACGIH, IARC, OR NTP-RECORDED CARCINGEN.         WORK OPERATION/TASK       RECOMMENDED MEDICAL SURVEILLANCE SUMMERY         MORK OPERATION/TASK       RECOMMENDED MEDICAL EROGRAM       MEDICAL ROGRAM         Forklift operation       Forklift Operator       710       15		1. USE THE :	FOLLOWING CON	VIROL CODES:			
HCP - HEARING CONSERVATION PROGRAM       SEG - SIMILARLY EXPOSED GROUP       RPP -RESPIRATORY PROTECTION PROGRAM         .       USE THE FOLLOWING EXPOSURE CODES:       ACCEPTABLE-ONE WHERE THE IH WILL NOT EXPECT THE SEG, ON AVERAGE, TO BE EXPOSED ABOVE THE SELECTED OEL.         UNCERTAIN-ADDITIONAL DATA NEED TO DE COLLECTED TO CLARIFY THE EXPOSURE ASSESSMENT.       THE IH SHOULD MAKE AN INTERIM EXPOSURE ASSESSMENT.         UNACCEPTABLE-ONE WHERE THE IH WILL EXPECT THE SEG, ON AVERAGE, TO BE EXPOSED ABOVE THE SELECTED OEL.       SKIN-THE MATERIAL POSES A SKIN ABSORPTION HAZARD.         UNACCEPTABLE-ONE WHERE THE IH WILL EXPECT THE SEG, ON AVERAGE, TO BE EXPOSED ABOVE THE SELECTED OEL.       SKIN-THE MATERIAL FOSES A SKIN ABSORPTION HAZARD.         REPRO HAZARD-THE MATERIAL IS A RECOGNIZED REPRODUCTIVE HAZARD.       REPRO HAZARD-THE MATERIAL IS A RECOGNIZED REPRODUCTIVE HAZARD.         CARCINOGEN-THE MATERIAL CONTAINS >0.1% OF AN OSHA, ACGIH, IARC, OR NTP-RECOGNZED CARCINGEN.       MEDICAL         WORK OPERATION/TASK       RECOMMENDED MEDICAL SURVEILLANCE SUMMARY         MORE OF FORLIGATION OF FORLY       FORGRAM         IFORRATION/TASK       RECOMMENDED MEDICAL PROGRAM         MEDICAL       FORKLIFT Operator				~			
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ACCEPTABLE-ONE WHERE THE IH WILL NOT EXPECT THE SEG, ON AVERAGE, TO BE EXPOSED ABOVE THE SELECTED OEL. UNCERTAIN-ADDITIONAL DATA NEED TO BE COLLECTED TO CLARIFY THE EXPOSURE ASSESSMENT. THE IH SHOULD MAKE AN INTERIM EXPOSURE ASSESSMENT BASED ON OBSERVATION OF THE PROCESS AND/OR PROFESSIONAL JUDGEMENT. UNACCEPTABLE-ONE WHERE THE IH WILL EXPECT THE SEG, ON AVERAGE, TO BE EXPOSED ABOVE THE SELECTED OEL. SKIN-THE MATERIAL POSES A SKIN ABSORPTION HAZARD. REPRO HAZARD-THE MATERIAL IS A RECOGNIZED REPRODUCTIVE HAZARD. CARCINOGEN-THE MATERIAL CONTAINS >0.1% OF AN OSHA, ACGIH, IARC, OR NTP-RECOGNZED CARCINOGEN. <b>VORK OPERATION/TASK RECOMMENDED MEDICAL SURVEILLANCE SUMMARY</b> Forklift operation Forklift Operator Forklift Operator FORM		न जमग जशा ९	OLIOWING EXP	OSTRE CODES.			
UNCERTAIN-ADDITIONAL DATA NEED TO BE COLLECTED TO CLARIFY THE EXPOSURE ASSESSMENT. THE IH SHOULD MAKE AN INTERIM EXPOSURE ASSESSMENT         BASED ON OBSERVATION OF THE PROCESS AND/OR PROFESSIONAL JUDGEMENT.         UNACCEPTABLE-ONE WHERE THE IH WILL EXPECT THE SEG, ON AVERAGE, TO BE EXPOSED ABOVE THE SELECTED OEL.         SKIN-THE MATERIAL POSES A SKIN ABSORPTION HAZARD.         REPRO HAZARD-THE MATERIAL IS A RECOGNIZED REPRODUCTIVE HAZARD.         CARCINOGEN-THE MATERIAL CONTAINS >0.1% OF AN OSHA, ACGIH, IARC, OR NUP-RECOGNZED CARCINOGEN.         VORK OPERATION/TASK       RECOMMENDED MEDICAL SURVEILIANCE SUMMARY         Forklift operation       Forklift Operator       710	ACCEPTARIE-ONE WHERE THE IN				POSED ABOVE THE	ाम् (प्रमान्ध्र	
BASED ON OBSERVATION OF THE PROCESS AND/OR PROFESSIONAL JUDGEMENT.         UNACCEPTABLE-ONE WHERE THE IH WILL EXPECT THE SEG, ON AVERAGE, TO BE EXPOSED ABOVE THE SELECTED OEL.         SKIN-THE MATERIAL POSES A SKIN ABSORPTION HAZARD.         REPRO HAZARD-THE MATERIAL IS A RECOGNIZED REPRODUCTIVE HAZARD.         CARCINOGEN-THE MATERIAL CONTAINS >0.1% OF AN OSHA, ACGIH, IARC, OR NTP-RECOGNZED CARCINOGEN.         WORK OPERATION/TASK         MEDICAL SURVEILIANCE SUMMERY         Forklift operation       Forklift Operator         710       15							
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REPRO HAZARD-THE MATERIAL IS A RECOQNIZED REPRODUCTIVE HAZARD.         CARCINOGEN-THE MATERIAL CONTAINS >0.1% OF AN OSHA, ACGIH, IARC, OR NTP-RECOGNZED CARCINOGEN.         WORK OPERATION/TASK       RECOMMENDED MEDICAL SURVEILIANCE SUMMARY         MORK OPERATION/TASK       MEDICAL SURVEILIANCE SUMMARY         FROMMENDED MEDICAL PROGRAM       MEDICAL SURVEILIANCE SUMMARY         FROMMENDED MEDICAL PROGRAM       MEDICAL SURVEILIANCE SUMMARY         FROMMENDED MEDICAL PROGRAM       MEDICAL PROGRAM       MEDICAL SURVEILIANCE SUMMARY         FORMENDED MEDICAL PROGRAM       MEDICAL PROGRAM       MEDICAL PROGRAM         FROMMENDED MEDICAL PROGRAM       MEDICAL PROGRAM       MEDICAL PROGRAM         Forklift operation       Forklift Operator       710       15							
CARCINGEN-THE MATERIAL CONTAINS >0.1% OF AN OSHA, ACGIH, IARC, OR NTP-RECORDED CARCINGEN.  WORK OPERATION/TASK RECOMMENDED MEDICAL PROGRAM RECOMPOSED FORKLift operation Forklift Operator 710 15							
WORK SHOP MEDICAL SURVEILLANCE SUMMARY           WORK OPERATION/TASK         RECOMMENDED MEDICAL PROGRAM         MEDICAL PROGRAM NUMEER         ESTIMATED NUMEER OF WORKERS           Forklift operation         Forklift Operator         710         15						RCTNOFFIN.	
WORK OPERATION/TASK         RECOMMENDED MEDICAL PROGRAM         MEDICAL PROGRAM NUMEER         ESTIMATED NUMEER OF WORKERS           Forklift operation         Forklift Operator         710         15				,,			
Forklift operationForklift Operator71015	WORK SHOP MEDICAL SURVEILLANCE SUMMARY						
Forklift operation     Forklift Operator     710     15	WORK OPERATION/TASK	RECOMMENDED	RECOMMENDED MEDICAL PROGRAM			ESTIMATED NUMBER OF WORKERS	
Forklift operationForklift Operator71015					PROGRAM		
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1					NUMBER		
Ordnance Handling Explosive Handler 721 15	Forklift operation	Forklift Op	erator		710	15	
	Ordnance Handling	Explosive H	andler		721	15	

Explosive Vehicle Operator

Hearing Conservation Program

720

503

15

15

Transport of ordnance

Weapons qualification/Flightline operations

WORKPLACE HAZARD ASSESSMENT		DA	TE: 10 JAN 2017	
<pre>WCRKPLACE HAZARD ASSESSMENT RECORDED BY: E. L. RANCHES INSTALLATION: MARINE CORPS AIR STATION BUILDING NUMBER: BLDG 599 SHOP NAME: MCAS TELEPHONE OFFICE IH TYPE/DATE 2 YEAR DOEHRS CATEGORY 2 SHOP OFERATIONS: The shop plans for MILCON communicat prepare billing documents. Technicians maintain telep FROCESS/OFERATIONS AND STRESSOR/HAZARD Weagons Qualification Operations: All Marine AD personnel are required to perform weapons qualifications annually. "The U.S. Anny reports M-4 Carbine (5.56 mm) produced peak sound pressure levels (SPLs) as high as 165. Peak noise levels of 160 dBP and above are known to cause immediate physical trauma. Workers should be trained to recognize noise sources within the command and to wear appropriate level of Hearing Protective Devices (HPD) in noise hazardous areas. (1)Noise (2)Lead Per Marine Corps Order 6260.3A Marine Corps Hearing Conservation Program 26 Sep 2016, all active duty personnel shall be enrolled in the HCP.</pre>		SU PHC TO Dffice perso	PERVISOR: CNO S CNE: 228-6 TAL PERSONNEL: 9 G MALE: MIL: 5 G FFMALE:MIL 0 G nnel receive incoming	S: 4 CONTR: 0 S: 2 CONTR: 0 S 2 CONTR: 0
Administrative Operations: Office environment (computers and keyboarding) comprise the majority of work evolutions. Personnel have task variety (keyboarding, filing, phone, oversight activities, etc.) No worker performs dedicated data entry operations. The only heavy lifting operations performed are rare supply operations with the heaviest item moved a box of copy paper (~40 lbs.) When new computer equipment is installed or delivered, workers utilize carts to transport such equipment. (1) Static Posture (2) Work/Rate Repetition	1-4 hrs./day keyboarding.	3	Training. USED/REQUIRED: ADM: Ergonomics, General Awareness, Task Variety, Breaks. ENG: Carts, Hand trucks, Ergo Chairs, Workstations.	Hazard. Lead is a potential ototoxic which can increase the risk of hearing loss. Acceptable. No reports of disconfort have been reported for these tasks. Heavy (lifting over 25 pounds) and prolonged standing are listed in MCPHC-IM-OEM 6260.01C April 2010 as developmental Reproductive Hazards.

		<u></u>		1			
Communications Operations: Incidental noise	2-4 hours,	8	USED/REQUIRED:	-	Short duration of landline		
exposure from aircraft taking off and landing during	2-3 X a		PPE: Single		e in hazardous noise and		
installation of communication landlines at	month and as		Hearing Protection	frequency c	of the activity.		
flightline transmission sites.	needed.		for noise >85				
					isted as a fetal		
Accessing tight and hard to reach areas during wire			dB(A).		tal Hazard in MCPHC-IM-OEM		
installation of communication equipment. Enterprise				6260.1C Rep	productive And Developmental		
Safety Application and Management Systems (ESAMS) is			ADM: Work/Rest	Hazards.			
a base wide media resource to inform management of			Cycle, Ergonomics,				
any incident/complaint of potential or case of			General Awareness,	Heavy lifti	ing is listed in NMCPHC-TM-		
occupational injury. All MCAS personnel possess an			Fall Protection	OEM 6260.01	IC April 2010 as a		
account for this system.			Program Training,		re and/or developmental		
The defense of a large dealer of a large dealer was a large dealer of a large deale			Gas free	hazard.			
Working on elevated platforms and climbing telephone			engineering,				
poles and confined space entry. Telecommunication lineman's body belts, safety straps and lanyards			Confined Space	Heat Stress	s is listed in NMCPHC-TM-OEM		
must meet the requirement of OSHA 1910.268(q) (2).			Training and		oril 2010 as a reproductive		
Confined space in Permit required confined space			Regulated area,		elopmental hazard.		
entry such a manholes and voids.			HAZCOM Training;		and instant instant.		
GIOLY SAGE & HELEDICS OF A VOID.			Heat Stress				
Working in confined spaces and outdoors during							
extreme weather temperature.			Training, Flag				
currane meanner ranherarnie.			System, Hydration,				
Maulina an anna anna fan annaistian			Work Rest Cycles,				
Working on power source for communications			Lock Out/Tag Out.				
(Telephone, Community Antennae and Television (CATV							
and Fiber Optics).			ENG: Personnel				
			have access to				
(1) Noise			well ventilate and				
(2) Dynamic Posture			temperature				
(3) Work/Rate Repetition			controlled area.				
(4) Physical Exertion							
(5) <b>Slip</b>							
(6) <b>Trip</b>							
(7) <b>Fall</b>							
(8) Oxygen Deficiency							
(9) Heat Stress							
(10) Cold Stress							
(11) Electric Shock							
	1. USE THE FOL	IOWING CONTE	OL CODES:				
ADM - ADMINISTRATIVE CONTRO			OTECTIVE EQUIPMENT	ISO - ISOLATI	ON		
DV - DILUTION VENTILA							
HCP - HEARING CONSERVATION PROGRAM				ATORY PROTECTI	ON PROGRAM		
	2. USE THE FOLI						
ACCEPTABLE-ONE WHERE THE IH WILL							
UNCERTAIN-ADDITIONAL DATA NEED TO BE COLLECTED TO CL	RIFY THE EXPOSU	RE ASSESSMEN	T. THE IH SHOULD MA	KE AN INTERIM	EXPOSURE ASSESSMENT BASED ON		
OBSERVATIO	N OF THE PROCESS	S AND/OR PRO	ESSIONAL JUDGEMENT.				
UNACCEPTABLE-ONE WHERE THE IH WI	IL EXPECT THE S	EG, ON AVERA	GE, TO BE EXPOSED AB	OVE THE SELECT	ED OEL.		
SKIN-T	HE MATERIAL POSE	es a skin ab	SORPTION HAZARD.				
REPRO HAZARD-TH	E MATERIAL IS A	NAVY RECOGN	IZED REPRODUCTIVE HAZ	ARD.			
CARCINOGEN-THE MATERIAL CONTAINS >0.1% OF AN OSHA, ACGIH, IARC, OR NTP-RECOGNZED CARCINOGEN.							
ν	KORK SHOP MEDICA	l surveillan	CE SUMMARY				
WORK OPERATION/TASK	RECOMMENDED M		bM	MEDICAL	ESTIMATED NUMBER OF		
The constitute of the constitu	New Picks M			PROGRAM	WORKERS		
				NUMBER	HALLENO		
Weapons qualification/Flight operations	Hearing Conser	rvation Prog	ram	503	5		
	Licaring wilder			555	J		

WORKPLACE HAZARD ASSESSMENT		DA	TE: 10 JAN 2017	
RECORDED BY:       E. L. RANCHES         INSTALLATION:       MARINE CORPS AIR STATION         BUILDING NUMBER:       BLDG 860         SHOP NAME:       MCAS VISITING AIRCRAFT LINE         IH TYPE/DATE       2 YEAR DOEHRS CATEGORY 2         SHOP OFERATIONS:       No changes in shop operations. H         Assist in recovery and launching all visiting airpl		ponsible fo	CNE: 228-72 TAL PERSONNEL: 6 G MALE: MIL: 3 G FEMALE:MIL 0 G or sweeping the flight	5: 3 CONTR: 0 5: 3 CONTR: 0 5 0 CONTR: 0 5 line using a mechanical sweeper.
PROCESS/OPERATIONS AND STRESSOR/HAZARD	DURATION/ FREQUENCY	NUMBER OF WORKERS	CONTROLS (1)	EXPOSURE ASSESSMENT (2)
<pre>Weapons Qualification Operations: All Marine AD personnel are required to perform weapons qualifications annually. "The U.S. Army reports M-4 Carbine (5.56 mm) produced peak sound pressure levels (SPLs) as high as 165. Peak noise levels of 160 dBP and above are known to cause immediate physical trauma. Workers should be trained to recognize noise sources within the command and to wear appropriate level of Hearing Protective Devices (HPD) in noise hazardous areas. (1)Noise (2)Lead Per Marine Corps Order 6260.3A Marine Corps Hearing Conservation Program 26 Sep 2016, all active duty personnel shall be enrolled in the HCP.</pre>	2-4 hrs./day, lx/ year for rifle qualification for military personnel 1-2 hrs./day, lx/ year for pistol qualification for military personnel	3	USED/REQUIRED: <u>PFE</u> : Naval Hospital Beaufort Audiologist has recommended that the double-sided combat arms ear plugs (CAEP) are used by range personnel when working inside a 75 ft. radius of the active firing range <u>ADM:</u> HCP Training; Personal Hygiene (handwashing), Lead Safety Training, HAZCOM Training	Unacceptable for noise. Based on statistical evaluation of measured noise dosimetry and impulse noise above 140 dB(P). Acceptable for lead. Based on limited frequency and duration of exposure. Ensure that workers fully participate in the HCP which includes annual HCP training; annual audiograms; labeling of noise hazardous equipment and areas; and the use of appropriate hearing protective devices. <b>Noise is listed as a fetal</b> <b>developmental Hazard in NNCPHC-IM-OEM</b> 6260.1C Reproductive And Developmental Hazards. <b>Lead is listed in MCPHC-IM-OEM</b> <b>6260.0IC April 2010 as a Reproductive</b> <b>Hazard.</b> <b>Lead is a potential ototoxic which can</b>
<ul> <li>Aircraft/Flightline Operations. Ground support of visiting aircraft. Assist in hot pit refueling of aircraft. Incidental exposure to JP5 which may contain Benzene, Kerosene, Toluene, Xylene.</li> <li>Flightline grounds maintenance. Use the blower of the truck instead of vacuum as this is more efficient to disperse FOD from the tarmac surfaces to the side of the runway. Personnel are able to access well-ventilated areas and temperature controlled spaces during extreme heat/cold weather conditions. Most of the vehicles used for ground support are air conditioned. Bending, stooping and lifting are required for fueling and ground maintenance.</li> <li>Representative Noise Dosimetry Results from launch &amp; recovery/aircraft maintenance activities, for VMFA-533, 19 Aug 15; and VMFA-224 16 Jun 15 (Marine Corps Occupational Exposure Level (MOCEL) = 85 dB(A) Time Weighted Average (TWA). SEG -Launch and Recovery Operations: Statistical average is calculated to be 94.5 dB(A).</li> <li>Noise</li> <li>Noise</li> <li>Incidental chemical splash</li> <li>Respirable Dust</li> <li>Heat Stress</li> <li>Cold Stress</li> <li>Dynamic Posture</li> </ul>	2-4 hours/day, as needed	6	USED/REQUIRED: ADM: HAZCOM Training, Heat Stress Training, Flag System, Hydration, Work Rest Cycles; Ergonomics General Awareness Training, Work/rest cycle <u>PPE:</u> Plugs and Muffs are required when on flightline during flight operations; Safety Glasses, Leather gloves, Coveralls Flame Retardant <u>DV</u> : Natural ventilation. <u>ENG</u> : Enclosed Air conditioned cab	increase the risk of hearing loss. Unacceptable for noise. Based on representative sampling exceeded the occupational exposure limit. Noise is listed in NMCPHC-TM-OEM 6260.01C April 2010 as a Reproductive Hazard. Toluene and Xylene are listed in NMCPHC-TM-OEM 6260.01C April 2010 as a Reproductive Hazard. Benzene is a recognized carcinogen. Heat Stress is listed in NMCPHC-TM-OEM 6260.01C April 2010 as a reproductive and/or developmental hazard. Jet fuels contain potential autotoxins which can increase the risk of hearing loss.

WORKPLACE HAZARD ASSESSMENT		DA	TE: 10 JAN 2017	7		
RECORDED BY: E. L. RANCHES		SU	PERVISOR: S	SSGT CORR	IGAN	
INSTALLATION: MARINE CORPS AIR STATION		PH	ONE: 2	228-7110		
BUILDING NUMBER: BLDG 860		TO	IAL PERSONNEL: (	5 GS: 3	CONTR: 0	
SHOP NAME: MCAS VISITING AIRCRAFT LINE			MALE: MIL: 3	3 GS: 3	CONTR: 0	
IH TYPE/DATE 2 YEAR DOEHRS CATEGORY 2			FEMALE:MIL (	) GS 0	CONTR: 0	
SHOP OPERATIONS: No changes in shop operations. Pe	ersonnel are respons	ible fo	or sweeping the f	light lir	ne using a mecha	nical sweeper.
Assist in recovery and launching all visiting airpla	ane and assist in ho	t pit :	refueling of airc	raft.		
	DURATION/	JMBER.	CONTROLS			
PROCESS/OPERATIONS AND STRESSOR/HAZARD	FREQUENCY	OF	(1)		EXPOSURE A	ASSESSMENT (2)
		RKERS				
	1. USE THE FOLLOWIN					
ADM - ADMINISTRATIVE CONTRO			ROTECTIVE EQUIPM			
DV - DILUTION VENTILA						00316
HCP - HEARING CONSERVATION PROGRAM	SEG - SIMILARLI E	KPUSED	GROUP RPP -R	LSPIRATOR	I PROTECTION PRO	GRAM
	2. USE THE FOLLOWIN	IG EXPO	SURE CODES:			
ACCEPTABLE-ONE WHERE THE IH WILL	NOT EXPECT THE SEG,	ON AVE	RAGE, TO BE EXPO	SED ABOVE	THE SELECTED OF	<u>د</u> .
UNCERTAIN-ADDITIONAL DATA NEED TO BE COLLECTED TO C	LARIFY THE EXPOSURE	ASSESS	THE IN SHO	ULD MAKE	AN INTERIM EXPO	SURE ASSESSMENT BASED
ON OBSERVATI	ON OF THE PROCESS AI	ND/OR E	ROFESSIONAL JUDG	EMENT.		
UNACCEPTABLE-ONE WHERE THE IH WI	LL EXPECT THE SEG, (	ON AVEF	AGE, TO BE EXPOSI	ED ABOVE	THE SELECTED OEI	J•
SKIN-T	HE MATERIAL POSES A	SKIN A	BSORPTION HAZARD.			
REPRO HAZARD-THI	E MATERIAL IS A NAVY	RECOG	VIZED REPRODUCTIV	Æ HAZARD.		
CARCINOGEN-THE MATERIAL CONT	TAINS >0.1% OF AN OS	HA, ACC	IH, IARC, OR NTP	-RECOGNZE	D CARCINOGEN.	
й	IORK SHOP MEDICAL SU	RVEILLA	NCE SUMMARY			
WORK OPERATION/TASK	RECOMMENDED	MEDICA	PROGRAM		MEDICAL	ESTIMATED NUMBER
					PROGRAM	OF WORKERS
					NUMBER	
Weapons qualification/Flight operations	Hearing Cons	ervati	on Program		503	6
	-					

	MCAS BEAUFORT SC Workplace Monitoring Plan 2017							
Work Center	Operation to be sampled	Туре	Vent Description	Hazard/ Stressor	# Samples	Method	Location of Sample	Frequency
MCAS EXPLOSIVE AND ORDNANCE DISPOSAL	SOLDERING ROOM	VENT	EXHAUST HOOD	LEAD	1	DIRECT READING	LOCAL EXHAUST	ANNUAL
MCAS PROVOST MARSHALL OFFICE (MCAS/MCRD)	VENTILATION (Room): Holding Cells	VENT	ROOM SUPPLY AND EXHAUST		1 (Each Cell)	DIRECT READING / SMOKE	GA- GENERAL AREA	BIENNIAL
MCAS PROVOST MARSHALL OFFICE (MCAS/MCRD)	LIGHTING: Holding Cells	LIGHT	NA	NA	1 (Each Cell)	DIRECT	GA- GENERAL AREA	BIENNIAL
MCAS STATION FUELS/ FUEL LAB	VENTILATION: JP 5 Ventilation survey on the air foil hood	VENT	DEDICATED	FUELS	1	DIRECT READING / SMOKE	GA- GENERAL AREA	ANNUAL
MCAS STATION FUELS/ FUEL LAB	VENTILATION: JP 5 Ventilation survey on laboratory spaces	VENT	LABORATORY HOOD	FUELS	1	DIRECT READING / SMOKE	GA- GENERAL AREA	ANNUAL

	SU	IMMARY OF MEDICAL SURVEILLANCE NEEI MCAS BEAUFORT, SC January 2017	DS FOR	
WORK CENTER / SHOP	STRESSOR: OPERATION	CONTROLS	RECOMMENDED MEDICAL SURVEILLANCE PROGRAM	ESTIMA PERSON
MCAS Air Traffic Control	Noise: weapons firing, flightline, pneumatic tools, etc.	Hearing protective devices, signage, double hearing protection (plugs & muffs), CAEPS (Combat arms ear plugs)	503 - HCP- Hearing Conservation Program	21
MCAS Aircraft Recovery	Noise: Maintenance of arresting gears	Hearing protective devices, signage, administrative controls, cranials, double hearing protection (plugs & muffs)	503 - HCP- Hearing Conservation Program	36
MCAS Distribution Management Office	Noise: Weapons Firing	Hearing protective devices, signage, double hearing protection (plugs & muffs), CAEPS (Combat arms ear plugs)	503 - HCP- Hearing Conservation Program	4
MCAS Distribution Management Office	Driving Forklifts	ADM: Training, Licensure, Work practices	710 - Forklift Operator Occupational Medical Exam (OME) Certification	8
MCAS Explosive Ordnance Disposal (EOD)	Noise: Weapons Firing and rare conducting bomb disposal	Hearing protective devices, signage, double hearing protection (plugs & muffs), CAEPS (Combat arms ear plugs)	503 - HCP- Hearing Conservation Program	8
MCAS Explosive Ordnance Disposal (EOD)	Hazardous Waste/ Explosive/ CBRNE	PPE: Single Hearing Protection (Plugs OR Muffs) is required when noise levels are 85-103 dB(A); Full face respirator with organic vapor cartridges and HEPA filter; CEOD 9 Bomb Suit, Ballistic face shield and Kevlar gloves	711 - Hazardous Waste Worker and Emergency Responders Explosive Handlers and Driver Occupational Medical Exam (OME)	8
MCAS Explosive Ordnance Disposal (EOD)	CBRNE/HAZMAT	Full Face respirator w organic vapor and P100 filters, gloves, dilution ventilation	716- Respiratory Protection Program Respirator User Certification Exam	8
MCAS Explosive Ordnance Disposal (EOD)	Driving with explosives and handling explosives	ADM: Training and certification	720 - EH- Explosive Handlers and Driver Occupational Medical Exam (OME)	8
MCAS Explosive Ordnance Disposal (EOD)	Explosive handling	ADM: Training and certification	721- Explosive Handler Occupational Medical Exam (OME)	8
MCAS Hazard Minimization Center	Noise: Weapons Firing	Hearing protective devices, signage, double hearing protection (plugs & muffs), CAEPS (Combat arms ear plugs)	503 - HCP- Hearing Conservation Program	4
MCAS Hazard Minimization Center	Driving Forklifts	ADM: Training, Licensure, Work practices	710 - Forklift Operator Occupational Medical Exam (OME) Certification	3
MCAS Hazard Minimization Center	Disposal of partially used spray cans	Half Face respirator	716 Respiratory protection Program	1
MCAS Hazard Minimization Center	CBRNE/HAZMAT	Full Face respirator w organic vapor and P100 filters, gloves, dilution ventilation	716- Respiratory Protection Program Respirator User Certification Exam	1
MCAS Natural Resources Environmental Affairs Office (NREAO) Recycling Center	Noise: Flightline and aircraft noise and cardboard bailer	Hearing protective devices, signage, administrative controls, cranials, double hearing protection (plugs & muffs)	503 - HCP- Hearing Conservation Program	8
MCAS Natural Resources Environmental Affairs Office (NREAO) Recycling Center	Forklift operations	ADM: Training, Licensure, Work practices	710 - Forklift Operator Occupational Medical Exam (OME) Certification	8
MCAS Natural Resources Environmental Affairs Office (NREAO) Recycling Center	CBRNE/HAZMAT	PPE: Half Face respirator, Tyveks, Splash Goggles ADM: Training	711 - Hazardous Waste Worker and Emergency Responders Explosive Handlers and Driver Occupational Medical Exam (OME)	8

	SUMMARY OF MEDICAL SURVEILLANCE NEEDS FOR MCAS BEAUFORT, SC January 2017							
WORK CENTER / SHOP	STRESSOR: OPERATION	CONTROLS	RECOMMENDED MEDICAL SURVEILLANCE PROGRAM	ESTIMAT PERSONI				
MCAS Natural Resources Environmental Affairs Office (NREAO) Recycling Center	Hazardous Waste Operations (Rare)	Half Face respirator	716 Respiratory protection Program	8				
MCAS Provost Marshall Office	BBP: incidental to patient care activities	ADM: Universal precautions; Training; PPE: Gloves	178 - BBP- Bloodborne Pathogens Occupational Medical Exam (OME)	236				
MCAS Provost Marshall Office	Noise: Flightline and aircraft noise	Hearing protective devices, signage, administrative controls, cranials, double hearing protection (plugs & muffs)	503 - HCP- Hearing Conservation Program	236				
MCAS Provost Marshall Office	Driving military vehicles	ADM: Training, Licensure, Work practices	712 - Motor Vehicle Operator (Other than DOT) Occupational Medical Exam (OME)	209				
MCAS Provost Marshall Office	Police and Security	ADM: Training	714 - Police/Security Occupational Medical Exam (OME)	209				
MCAS Provost Marshall Office	Hazardous Waste Operations (Rare)/ CBRNE	Half Face respirator	716- Respiratory Protection Program Respirator User Certification Exam	236				
MCAS Provost Marshall Office	Driving with explosives and handling ordnance	ADM: Training and certification	720 - EH- Explosive Handlers and Driver Occupational Medical Exam (OME)	209				
MCAS Provost Marshall Office	Explosive Ordnance Disposal and handling	ADM: Training and certification	721- Explosive Handler Occupational Medical Exam (OME)	3				
MCAS Station Fuels/Fuel Lab	Noise: weapons firing, flightline, pneumatic tools, etc.	Hearing protective devices, signage, double hearing protection (plugs & muffs), cranials; CAEPS (Combat arms ear plugs)	503 - HCP- Hearing Conservation Program	23				
MCAS Station Fuels/Fuel Lab	CBRNE/HAZMAT	PPE: Half Face respirator, Tyveks, Splash Goggles ADM: Training	711 - Hazardous Waste Worker and Emergency Responders Explosive Handlers and Driver Occupational Medical Exam (OME)	23				
MCAS Station Ordnance	Noise: weapons firing, flightline, pneumatic tools, etc.	Hearing protective devices, signage, double hearing protection (plugs & muffs), CAEPS (Combat arms ear plugs)	503 - HCP- Hearing Conservation Program	18				
MCAS Station Ordnance	Forklift operations	ADM: Training, Licensure, Work practices	710 - Forklift Operator Occupational Medical Exam (OME) Certification	18				
MCAS Station Ordnance	Driving with explosives and handling explosives	ADM: Training and certification	720 - EH- Explosive Handlers and Driver Occupational Medical Exam (OME)	18				
MCAS Station Ordnance	Explosive handling	ADM: Training and certification	721- Explosive Handler Occupational Medical Exam (OME)	18				
MCAS Telephone Office	Noise: weapons firing, flightline, pneumatic tools, etc.	Hearing protective devices, signage, double hearing protection (plugs & muffs), CAEPS (Combat arms ear plugs)	503 - HCP- Hearing Conservation Program	5				
MCAS Visiting Aircrafts Line	Noise: weapons firing, flightline, pneumatic tools, ground support equipment, etc.	Hearing protective devices, signage, double hearing protection (plugs & muffs), CAEPS (Combat arms ear plugs)	503 - HCP- Hearing Conservation Program	6				

NOTE: Explanation of Medical Surveillance/Certification Recommendations.

1. Recommendation for inclusion in a hazard-based medical surveillance program for employees involved in a given operation is based on the industrial hygienist's professional judgment, either through observation or knowledge of the process or representative sampling, that these employees will be routinely exposed to workplace concentrations at or above the Action Level which is 50% of applicable OSHA standards or action levels established by Navy instruction or Federal regulation. Medical certification is required by specific Navy or Federal directive where a certain degree of

physical fitness has been judged as necessary for a component of the job (i.e. respirator use) or the job itself (i.e. firefighters or forklift operators). All personnel involved in weapons and explosive handling should receive annual Explosive Handler screenings or special exam as needed.

2. The Occ Hlth Provider will make the final determination for enrolment in the Blood borne Pathogen Medical Surveillance Program for potentially exposed personnel using federal regulations and local instruction for exposure control plan as guidance.

3. The potential for reproductive hazards exposure should not be construed as an automatic removal from the job or billet. The Care Provider should consult with Occ. Hlth. and must provide the medical decision appropriate for the working condition of the pregnant service women. OPNAVINST 6000.1C - Navy Guidelines Concerning Pregnancy and Parenthood provides the policy and procedures regarding management of pregnant servicewomen.

4. HCP medical surveillance recommendations in this report are based solely on "in garrison" work day exposure assessments and do not incorporate personnel noise exposure incurred during deployment(s), which should be carefully considered prior to HCP removal.

	MCAS BEAUFORT SC Summary of Sample Results 2017							
Sample Number	Bldg./ Room/Shop	Activity/ Worker	Stressor	Measured Results	Exposure Criteria	Evaluation		
IH17-0056	Bldg. 584/ PMO Detection Cell Room 128A	Holding Cell for Detainee	Ventilation	640 cfm	MCO 1630.3d 10 cfm/Detainee	Acceptable		
IH17-0057	Bldg. 584/ PMO Detection Cell Room 128B	Holding Cell for Detainee	Ventilation	658 cfm	MCO 1630.3d 10 cfm/Detainee	Acceptable		
IH17-0058	Bldg. 584/ PMO Detection Cell Room 128A	Holding Cell for Detainee	Illumination	7.7 FC	MCO 1630.3d 20 FC/Detainee	Unacceptable		
IH17-0059	Bldg. 584/ PMO Detection Cell Room 128B	Holding Cell for Detainee	Illumination	8.3 FC	MCO 1630.3d 20 FC/Detainee	Unacceptable		

SUMMARY OF IDENTIFIED CARCINOGENS AT MCAS BEAUFORT CATEGORY 2 SHOPS 2017						
Work Centers/Shop	Carcinogen	Process	Organization and Classification Listing.			
MCAS Fuels/Fuel Lab	Benzene	Fueling/Defueling Aircraft, Fuel Testing	TLV -A1 IARC -1 NT - K			
MCAS HAZMIN Center MCAS NREAO		Processing partially used spray can for disposal.				
MCAS Visiting Aircraft Line		Hot pit refueling of aircraft				
Explosive Ordnance Disposal MCAS Air Traffic Control	Lead	Burn out pit -small arms ammo disposal Soldering	TLV -A3 IARC -2A			
Maintenance						

Exposure assessments for the stressor listed above are included in the Industrial Hygiene Survey report. Carcinogen should be eliminated or substituted with safer products.

Carcinogens are classified by International Agency for Research on Cancer (IARC), the National Toxicology Program (NTP), and the American Conference of Governmental Industrial Hygienist (ACGIH). The Federal Occupational Safety and Health Administration also list cancer causing materials.

Classification by Listing Organization:

ACGIH TLV

A1- Confirmed human carcinogen

A2- Suspected human carcinogen

A3- Confirmed animal carcinogen with unknown relevance to humans

NTP

K- Known to be human carcinogen

R- Reasonably anticipated to be a human carcinogen

IARC

Group 1 - Agent or mixture is carcinogenic to humans Group 2A- Agent or mixture is probably carcinogenic to humans Group 2B- Agent or mixture is possibly carcinogenic to humans

## **RESPIRATORY PROTECTION PROGRAM PERIODIC REVIEW 2017**

References: * OPNAVINST 5100.23G * 29 CFR 1910.134 2017		
Yes	No	Comments/Notes
X		
Х		Record of annual audit is maintained in the MCAS Department of Safety and Standardization (DSS) RPPM .
Х		
		N/A
X		The Fire Dept. Aircraft Rescue and Firefighting conduct the sample collection and send to third party analysis lab. Grade D certificates are posted in the conspicuous space of the compressors.
Х		The Base Safety and Standardization maintains the copy of the SOPs for the Fire Dept. (FD) and Aircraft Rescue and Firefighting (ARFF).
Х		FD and ARFF Program Managers inspect the monthly cleaning and maintenance of individually assigned respirators and properly document with copy provided to the DSS RPPM.
	x x x	X

Standard	Yes	No	Comments/Notes
Does the command have SOPs governing the selection, care, issue and use of respirators? Is emergency and rescue guidance included in the SOPs?	X		
Has the command written and posted specific worksite SOPs in the general area of work requiring respirators?	Х		
Training	Х		
Do all respirator users and their supervisors receive initial and annual refresher training?			
Does the respiratory training include as a minimum:			
<ul> <li>The nature and degree of respiratory hazards?</li> <li>Respirator selection?</li> <li>How to inspect, put on and remove, use and check the seals of the respirator?</li> <li>The maintenance and storage of the respirator?</li> <li>Wearing of contact lenses in contaminated atmosphere with respiratory protection equipment?</li> <li>The use and limitations of respirators?</li> <li>How to use the respirator effectively in emergency situations?</li> <li>Why the respirator is necessary and how improper fit, usage, or maintenance can compromise the protective fit of the respirator?</li> <li>How to recognize medical signs and symptoms that may limit or prevent the effective use of respirators?</li> <li>When to change chemical cartridges/canisters according to the established change out schedule?</li> <li>The general requirements of the respiratory standard?</li> </ul>	All YES		
Fit Testing	Х		
Are all personnel required to wear respirators with tightly fitting face pieces given a fit test at the time of initial fitting and annually thereafter?			
<ul> <li>Is respirator fit testing documented by:</li> <li>Respirator make, model, style, size and model?</li> <li>The method of test, test results and test date?</li> <li>Strip chart recording or other recording of test results for quantitative fit test?</li> <li>The name of the instructor/fit tester?</li> </ul>	X		

Standard	Yes	No	Comments/Notes
<ul> <li>Has each respirator user, prior to initial use, completed a questionnaire which describes:</li> <li>The general health status with emphasis on respiratory problems and operations/conditions respirator is to be worn?</li> </ul>	X		
Has the cognizant health professional reviewed the questionnaires (except in the case of humanitarian use) to determine whether a medical evaluation is necessary?	Х		Reviewed prior to Respirator User certification exam by Occ. Hlth, NAVHOSP Beaufort.
Medical Does the command ensure that respirator wearers are evaluated medically to ensure they are physically able to perform their assigned tasks while wearing their respirators?	x		Respirator User certification exam by Occ. Hlth, NAVHOSP Beaufort.
Does the command ensure that there is a medical statement for each user, noting whether the respirator user is qualified, qualified with restrictions, or not qualified to wear respirators?	Х		
Medical Audit Has the command provided the RPPM an annual written evaluation on the effectiveness of the program based on occupational medicine and industrial hygiene reviews?	X		
Additional Comments:			
Mission capable.			

#### Glossary

Action Level - Usually one-half the PEL or TLV. Acute - An illness with a sudden onset, or a short-term exposure. Administrative Control - Limiting exposures by controlling the work schedule. Ambient - Normal conditions outside a confined or enclosed space. ANSI - American National Standards Institute, a standard developing group. Audiogram - A graph or table showing hearing threshold levels by frequency. Audiometer - Instrument used to measure a person's hearing threshold. A-Weighted Sound Level - Measured sound level that reflects our ear's reduced sensitivity to low frequency sounds. Expressed as dB(A). Capture Velocity - The velocity of air necessary to capture a contaminant. Ceiling Limit - An exposure to toxic materials that may never be exceeded. Chronic - Persistent, prolonged, repeated. Concentration - Quantity of a substance per unit volume. Examples include: mg/m3- milligrams per cubic meter. For vapors, gases, fumes, or dusts. ppm - parts per million (used for vapors and gases), fibers/cc - fibers per cubic centimeter (used for asbestos) Confined Space - A space with restricted entry or exit and not designed for routine occupancy but large enough that a person can enter to perform work. Cumulative Trauma Disorders (CTDs) - Health disorders arising from repeated biomechanical stress. CTD involve damage to the tendons, tendon sheaths, and related bones, muscles, and nerves of the hands, wrists, elbows, shoulders, neck, and back. Disorders include carpal tunnel syndrome, tennis elbow, tendonitis, tenosynovitis, and low back pain. Decibel-dB - A unit used to express sound pressure levels. Detector Tube - A glass tube filled with a chemical that produces a color change when contaminated air is drawn through the tube. Dosimeter - A device for measuring a cumulative exposure to an individual. Dust - Small particles created during crushing, grinding, or explosion. Ergonomics - Field concerned with workplace design to reduce fatigue, error, unsafe acts or injuries such as CTD's. ESAMS- Enterprise Safety Application Management System Excursion Limit - Temporary exposure in excess of a PEL or TLV. Frequency - Vibration or cycles per second, usually referred to as Hertz (Hz). Fumes - Small particles (< 1.0 micron in diameter) formed when a vaporized metal solidifies. The vapor often reacts with oxygen to form an oxide. Gas - Diffuse, formless fluid normally in a gaseous state. Hazardous Material - A material meeting one or more of the following: (a) flashpoint  $<200^{\circ}F$ , (b) TLV <1000 ppm for gases and vapors or <500 mg/m3 for fumes, (c) a single oral dose which will cause 50 percent fatalities to test animals in doses <500 mg per kilogram of test animal weight, (d) strong oxidizing or reducing agent, (e) causes first degree burns to skin or toxic by skin contact, (f) may produce particulates, vapors or gases with one or more of the above characteristics, (g) sensitizing or irritating effects, (h) radioactive, or (i) special characteristics which could cause harm if improperly used or stored. Hazardous Material Information System (HMIS) - A computer database of MSDS for hazardous materials used throughout the DOD. High-Efficiency Particulate Air Filter (HEPA) - A filter capable of trapping and retaining at least 99.97 percent of 0.3 micrometer diameter particles. Immediately Dangerous to Life or Health (IDLH) - Atmosphere immediately hazardous to life or producing immediate irreversible harmful health effects. Imminent Danger - A condition that may immediately cause the loss of life, serious injury, or illness of an employee. Impulse or Impact Noise - Sound of short duration, usually < one second. Material Safety Data Sheet (MSDS) - Used by manufacturers to communicate hazardous properties of products. Includes: name; address; emergency contact;

hazardous ingredients; physical, chemical, fire, explosion, reactivity, and health hazard data; safe handling, use, and control precautions.

**Medical Surveillance** - Medical evaluation of the health of workers exposed to chemical, physical or biological agents in the workplace.

**NAVOSH** - Navy Occupational Safety and Health. Navy safety and health standards are referred to as NAVOSH standards and are > OSHA standards.

NIOSH - National Institute for Occupational Safety and Health.

NIOSH/MSHA Certified Equipment - Safety equipment that has been tested by NIOSH or MSHA and meets minimum requirements for hazard protection.

**Occupational Health** - Field of medicine involving prevention and treatment of illness in the workplace. Includes: occupational medicine, occupational health nursing, toxicology, audiology, and industrial hygiene.

OSHA - Occupational Safety and Health Administration.

**Oxygen Deficient Atmosphere** - An atmosphere with an oxygen concentration below 19.5 percent. The normal oxygen level is 21.5%.

**PEL** - Permissible Exposure Limit. The maximum concentration of a chemical or physical agent (usually an 8-hour average) allowed by OSHA.

Radiofrequency Radiation (RFR) - Electromagnetic radiation from 10 kHz to 300 GHz.

Smoke - Carbon or soot particles less than 0.1 micrometer in size.

**Solvent -** A substance used to dissolve another substance.

TLV - Threshold Limit Value - Exposure limits established by ACGIH.

**Toxic Substance or Harmful Physical Agent** - Chemical, biological, or physical agents which are regulated by NAVOSH or Federal standards.

**TWA -** Time-Weighted Average. Average concentration of airborne material over a standard time period, usually 8 hours.

Vapor - Gaseous form of materials normally in the solid or liquid state.

# Industrial Hygiene Customer Satisfaction Survey

In order to improve our Services, Industrial Hygiene would like to have feedback from all of our valued customers. Please return this questionnaire to the Industrial Hygiene Division via Guardmail or at the following address:

Naval Hospital Beaufort Industrial Hygiene Code 5JIH 1 Pinckney Blvd Beaufort SC 29902-6148

Survey/Date: MCAS BEAUFORT

Department: Position:

Name:

Phone:

Industrial Hygienist (IH): (Please use the comment block below to list comments or concerns)	Yes	No	NA
Did the IH conduct their service in a professional manner?			
Was the IH responsive and helpful during the survey walk-through and with any related follow-up questions/concerns?			
Was the IH knowledgeable about the potential health hazards associated with this work area?			

Comments:

Industrial Hygiene Survey Report/Correspondence: (Please use the comment block below to list comments or concerns)	Yes	No	NA
Was the information in the executive summary appropriate for senior leadership?			
Was the report clear, concise and easy to understand?			
Was the report layout and format easy to use and disseminate throughout your work centers?			
Were any personnel omitted from medical surveillance programs that you think should be enrolled?			
Were all work processes/concerns addressed?			
Were specific safety and health programs such as lead, hearing conservation, and reproductive hazards reviewed as appropriate for various work activities?			
Comments:			

Please comment on what you thought were the best aspects of our services:

Please comment on how we may improve the services we provided to you: