From: Officer in Charge, Naval Medical Administrative Unit, Monterey
To: Superintendent, Naval Postgraduate School, Monterey,
1 University Circle, Monterey CA 93943-5100

Subj: PERIODIC INDUSTRIAL HYGIENE SURVEY OF NAVAL POSTGRADUATE SCHOOL,
MONTEREY, DUDLEY KNOX LIBRARY

Ref: (a) OPNAVINST 5100.23E, Section 0803.a

Encl: (1) Industrial Hygiene Survey Report ET-0185

1. As required by reference (a), a periodic industrial hygiene survey of the Naval Postgraduate School, Monterey, Dudley Knox Library was conducted on 29 March 2002 by the Naval Medical Administrative Unit, Monterey Industrial Hygienist. Only a review of the Room 169 Shredding Room and use of drills in Room 119, Materials Preservation was required this year. The survey report ET-0185 is forwarded as enclosure (1).

2. Due to the size and complexity of your command, separate reports will be issued as surveys of individual areas are completed to ensure the timeliness of the information. This survey is a service provided under the overall Occupational Health Program. It is not an inspection report but is designed to assist your Command's Occupational Safety and Health Program by identifying and evaluating actual and potential occupational health hazards and the status of their controls.

3. Since there were no problems or findings, a response to this survey is unnecessary. This report is provided for the department's information and records only.

4. Further clarification or consultation with respect to this report is available from Eric Thurston at commercial (831) 656-3466.

S.E. THURSTON
By direction

Copy to:
Industrial Hygiene Department, NAVHOSP Lemoore
Admin Support Dept, NAVHOSP Lemoore (cover ltr only)
NAVAL MEDICAL ADMINISTRATIVE UNIT, MONTEREY
INDUSTRIAL HYGIENE SURVEY

of

NAVAL POSTGRADUATE SCHOOL, MONTEREY
DUDLEY KNOX LIBRARY

SURVEY #ET-0185

29 March 2002

Survey Conducted By: Eric Thurston,
Industrial Hygienist
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EXECUTIVE SUMMARY

The only significant hazard is noise generated during document shredding. Exposure is being controlled by use of appropriate hearing protection.

The department’s safety coordinator, Sam Hornbeck, should be commended for his excellent performance.

Specific details of these findings can be found in sections II and III of this report. The cooperation of your staff, especially Mr. Hornbeck, was greatly appreciated.
COMMON ABBREVIATIONS AND GLOSSARY

(The following abbreviations may be used in this report)

ACGIH  American Conference of Governmental Industrial Hygienists
ACM  Asbestos Containing Material.
AL  Action Level. Normally ½ PEL. Exposure level at which air sampling, employee training, medical surveillance are required.
ANSI  American National Standards Institute. A national consensus standards developing organization.
Ceiling  A toxic material exposure level which cannot be exceeded for any length of time.
CFM  Cubic feet per minute. Air flow rate.
dBA  A sound level reading in decibels as measured on the A-weighted network of a sound level meter.
EL  Excursion Limit. Is a concentration limit which cannot be exceeded at any time.
EPA  Environmental Protection Agency.
f/cc  Fibers per cubic centimeter. A means for expressing airborne asbestos fiber concentrations.
FPM  Feet per minute.
HAZCOM  Hazard communication. A system for training employees about job hazards through the use of chemical inventories, MSDSs, labels, and personnel training.
HCP  Hearing Conservation Program. A program to prevent hearing loss from exposure to noise through the use of hearing protection, training, and medical surveillance.
HEPA  High-efficiency particulate air filter. A filter capable of trapping and retaining 99.97% of 0.3 micron diameter, or larger, particles.
HM  Hazardous material. A material which is a physical or health hazard per 29 CFR 1910.1200.
HW  Hazardous waste. Any discarded or abandoned hazardous substance as defined in 40 CFR 261.
LEV  Local exhaust ventilation. Exhaust system at source of contamination.
mg/m3  Milligrams per cubic meter of air. A means for expressing concentrations of dust and metal fumes in air.
MMVF  Man made vitreous fibers. (Fiberglass, mineral wool, ceramics)
MSAL  Medical Surveillance Action Level. A concentration of an air contaminant at which medical surveillance examinations must be provided to exposed personnel.
MSDS  Material Safety Data Sheet. A form used by manufacturers to communicate to users the chemical and physical properties of their products.
NAVOSH  Navy Occupational Safety and Health
NFPA  National Fire Protection Association
NIOSH  National Institute for Occupational Safety and Health. Recommends safety and health standards for OSHA.
NPEL  Navy Permissible Exposure Limit.
OSHA  Occupational Safety and Health Administration.
OV  Organic vapors.
PCB  Polychlorinated Biphenyl
<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>PEL</td>
<td>Permissible Exposure Limit. The maximum permissible allowable exposure level of a toxic chemical or harmful physical agent (normally averaged over 8 hours) to which an employee may be exposed.</td>
</tr>
<tr>
<td>PPE</td>
<td>Personal Protective Equipment. Clothing or devices furnished to protect employees in performance of work in potentially hazardous areas or conditions.</td>
</tr>
<tr>
<td>ppm</td>
<td>Parts per million. A means for expressing the concentration of gases and vapors in air.</td>
</tr>
<tr>
<td>RFR</td>
<td>Radiofrequency/Microwave Radiation.</td>
</tr>
<tr>
<td>RPPM</td>
<td>Respiratory Protection Program Manager.</td>
</tr>
<tr>
<td>SCBA</td>
<td>Self Contained Breathing Apparatus.</td>
</tr>
<tr>
<td>SOP</td>
<td>Standard Operating Procedures.</td>
</tr>
<tr>
<td>STEL</td>
<td>Short term exposure limit. A 15 minute time weighted average exposure which should not be exceeded at any time during a workday.</td>
</tr>
<tr>
<td>Stressor</td>
<td>Potential Hazard (e.g. Noise, Chemicals, Dusts)</td>
</tr>
<tr>
<td>TLV</td>
<td>Threshold Limit Value. Established by ACGIH as levels of airborne contaminants or physical hazards under which it is believed workers may be exposed on a day after day basis without adverse effect.</td>
</tr>
<tr>
<td>TWA</td>
<td>Time Weighted Average. A method for averaging varying concentrations over a specified period of time (usually 8 hours).</td>
</tr>
<tr>
<td>WC</td>
<td>Work Center</td>
</tr>
<tr>
<td>WMP</td>
<td>Workplace Monitoring Program. A program to evaluate workplace health hazards through surveys and exposure measurement.</td>
</tr>
</tbody>
</table>
SECTION I
INTRODUCTION

The Naval Postgraduate School, Monterey, Dudley Knox Library provides research material, research assistance, and study space for NPS staff and students.

If an operation has been overlooked or significant changes made which are believed to put personnel at serious risk, the industrial hygienist should be contacted, and an evaluation requested.

REPORT ORGANIZATION

Reference: (a) OPNAVINST 5100.23E, Section 0803.f

Section I - contains the background information associated with this report and the schedule for follow-up surveys.

Section II - addresses the status of the department's occupational health programs and a short overview of each program's status.

Section III - Contains industrial hygiene assessments of specific work areas. These assessments address the status of workplace hazards and required control procedures. Any deficient conditions or recommended improvements in specific work areas are addressed here.

Section IV - contains the results of all the sampling/monitoring data conducted in support of this survey.

Section V - identifies the occupational health medical surveillance requirements for each work area based on survey findings.

Section VI - details the sampling required to be conducted for OSHA or NAVOSH regulated stressors or stressors which have been found to result in personnel exposures equal to or in excess of the MSAL, PEL-Ceiling or PEL-STEL.

Appendix A - contains the OPNAV 5100/14 forms which are required by reference (a). These forms detail the occupational exposures of employees by work center or functional group.

Appendix B - is a copy of the Change In Operation Notification form, which should be filled out whenever a major operational change occurs. By returning the completed forms to the industrial hygienist, all new operations can be evaluated as required by reference (a). This form can be copied as needed for your use.
SURVEY SCHEDULE

References:  (a) OPNAVINST 5100.23E, Chapter 8, Sections 0803.b and c  
(b) OPNAVINST 5100.23E, Chapter 8, Paragraph 0803.g

In accordance with reference (a), each workplace must be thoroughly evaluated to identify and quantify potential occupational hazards. To document these evaluations, an initial comprehensive (baseline) survey is needed, followed by periodic updated surveys. Reference (b) requires workplaces with recognized potential health hazards to be evaluated annually, and other workplaces to be evaluated periodically. Medical surveillance recommendations and a workplace monitoring plan are developed from the findings of these surveys. Any comments or suggestions regarding these survey schedules should be forwarded to the industrial hygienist in your Safety Office. The year of the last survey appears after each work center listing.

WORKPLACE SURVEY SCHEDULE

<table>
<thead>
<tr>
<th>Annual Required</th>
<th>2 Year Schedule</th>
<th>4 Year Schedule</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>Shredding Room(2002)</td>
<td>All other areas(2000)</td>
</tr>
<tr>
<td>Material</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Preservation(2002)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Change of Operations Notification:

Reference (b) requires an industrial hygiene re-evaluation when workplace changes occur. Please notify the industrial hygienist in your Safety Office whenever major changes occur in a workplace. Examples of major changes include:

- Exposure times have changed.  
- New types of equipment are used.  
- New chemical/chemical product usage.  
- New operations are performed.  
- Increase in major chemical usage.  
- Changes in exhaust ventilation.

A "CHANGE OF OPERATIONS NOTIFICATION" form is provided in Appendix B and can be used for this purpose. Copy the form as needed for your use.
SECTION II
NAVY OCCUPATIONAL SAFETY AND HEALTH
PROGRAM REVIEWS

The following programs are not required to be maintained by the Naval Postgraduate School, Monterey, Dudley Knox Library Department because these hazards are not present:

- Asbestos Control
- Bloodborne Pathogens Control
- Hazardous Material Control
- Lead Control
- Manmade Vitreous Fibers Control
- Polychlorinated Biphenyls (PCB’s) Control
- Process Control Ventilation
- Reproductive Hazard Control
- Respiratory Protection

ERGONOMICS PROGRAM

The Code 223 log of occupational injuries log was reviewed, and no repetitive stress injuries were reported in Fiscal Year 2001 or in the first quarter of Fiscal Year 2002. The Code 223 Safety Office plans to conduct a comprehensive ergonomic survey of the department sometime in the future.

Recommendations: None. Provided for your information and records.

HEARING CONSERVATION PROGRAM

The only significant noise exposure occurs from shredding documents. Proper hearing protection is being worn. The entrance to the shredding room is properly posted as a noise hazardous area, and the decal appropriately lists the correct type of hearing protection to wear. The worker performing shredding, Marlin Wilson, needs to continue enrollment in the Hearing Conservation Program, which includes annual hearing conservation training and annual medical hearing tests.

The person who uses the drills in Room 119, Materials Preservation, Hyon Chong wears hearing protection (HP) as well, and a sign on the back wall indicates the need for use of HP. Because her calculated 8 hour average noise exposure does not exceed the NPEL, she is not required to be enrolled in the HCP, but must still wear HP when using the Togic drill.

Recommendation: None. Provided for your information and records.
SECTION III

INDUSTRIAL HYGIENE ASSESSMENTS
INDUSTRIAL HYGIENE ASSESSMENT

ACTIVITY: NPS Monterey FILE NO.: ET-0185 DATE: 29 March 2002

DEPARTMENT: Dudley Knox Library POC: Sam Hornbeck

LOCATION: Bldg 339 IND. HYG: Eric Thurston

FUNCTION: Provides research material, research assistance and study space for NPS staff and students. Desktop computers are available for student use. Document shredding is performed by one worker in the Room 169 Shredding Room and another worker uses drills as part of document binding in Room 119, Materials Preservation. This survey only reviewed document shredding and use of drills.

INDUSTRIAL HYGIENE ASSESSMENT

The following operation potentially exposes personnel to hazardous occupational stressors:


The following operations will not expose personnel to hazardous occupational stressors in excess of established health standards:

2. Operation of the Togic drill. The calculated 8 hour time-weighted average noise exposure is below the NPEL of 84 dBA outlined in reference (a) based on the measured noise level and time of use.

3. Operation of the Intimus paper shredder and Challenge drill. Measured noise levels of both items are below the noise criterion level of 84 dBA outlined in reference (a).

Use of the shredding machines and binding drills does not potentially expose personnel to stressors identified by OPNAVINST 5100.23E, Chapter 29, Appendix 29-A as reproductive hazards.

RECOMMENDATIONS:

1. Continue use of both ear plugs and muffs during operation of the Security Engineered paper shredder as required by reference (b). The worker performing paper shredding must receive annual hearing tests required by reference (c) and annual hearing conservation training required by reference (d).

2. Because instantaneous noise levels of the Togic drill can exceed 84 dBA, the operator must continue wearing hearing protection as required by reference (e), but does not require enrollment in the command’s Hearing Conservation Program.

REFERENCES:

(a) OPNAVINST 5100.23E, Chapter 18, paragraph 1803.a
(b) OPNAVINST 5100.23E, Chapter 18, paragraph 1807.b
(c) OPNAVINST 5100.23E, Chapter 18, section 1806
(d) OPNAVINST 5100.23E, Chapter 18, section 1808
(e) OPNAVINST 5100.23E, Chapter 18, paragraph 1807.a
SECTION VI
INDUSTRIAL HYGIENE SURVEY DATA

This Section contains the sampling/monitoring conducted in support of this survey. It should be noted that the measured levels of chemical and physical hazards are compared to the standards without regard to any personal protective equipment that may be worn or the protection afforded by it. The goal of the NAVOSH Program is to reduce workplace hazard levels by other means so that personal protective equipment is not required.

The sampling and analyses performed in support of this survey follow methods approved and validated by OSHA, NIOSH, or by other appropriate Naval instructions. When such methods are either unavailable or not applicable, other consensus methods may be used. In all cases, accepted professional industrial hygiene practices are followed. Documentation concerning the types of instruments used and their calibration records are held by the Naval Medical Admin Unit, Monterey Industrial Hygienist.

No new data was collected in support of this survey.
SECTION V

MEDICAL SURVEILLANCE MATRIX

The Medical Surveillance Matrix is provided to assist commands in assigning personnel to required medical surveillance. Medical surveillance for a work group must be based on exposure levels at or above the MSAL and exposure frequency of ten days per quarter or thirty days per year or as required by regulations or instruction.
<table>
<thead>
<tr>
<th>NOHIMS CODE</th>
<th>EXAM</th>
<th>Security Engr'd shredder</th>
<th>Binding drills</th>
<th>All other personnel</th>
</tr>
</thead>
<tbody>
<tr>
<td>'601</td>
<td>ACIDS/ALKALIS</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>'114</td>
<td>ASBESTOS CURRENT WORKER &gt; MSAL</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>'178</td>
<td>BLOOD AND/OR BODY FLUIDS</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>'124</td>
<td>CADMIUM</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>'133</td>
<td>CHROMIC ACID/CHROMIUM VI</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>508</td>
<td>HAND-ARM VIBRATION</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>505</td>
<td>IONIZING RADIATION</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>506</td>
<td>LASER RADIATION-CLASS IIIb or IV</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>'161</td>
<td>LEAD (INORGANIC)</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>'162</td>
<td>MACHINE OIL MIST/CUTTING FLUID</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>212</td>
<td>MANMADE MINERAL FIBERS/FIBERGLASS</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>'602</td>
<td>METAL FUMES</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>'168</td>
<td>METHYLENE CHLORIDE</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>503</td>
<td>NOISE</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>507</td>
<td>RADIOFREQUENCY &amp; MICROWAVE RADIATION</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>'603</td>
<td>MIXED SOLVENTS</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>510</td>
<td>SIGHT CONSERVATION</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>511</td>
<td>WHOLE BODY VIBRATION</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>'604</td>
<td>WOOD DUST</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>'723</td>
<td>BARBER/BEAUTY SHOP WORKER</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>'703</td>
<td>CHILD CARE WORKER</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>'706</td>
<td>DOT VEHICLE OPERATOR</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>'722</td>
<td>FIREFIGHTER, ANNUAL EXAM</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>'707</td>
<td>FIREFIGHTER, PREPLACEMENT AND PERIODIC EXAMS</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>'709</td>
<td>FOOD SERVICE PERSONNEL</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>'710</td>
<td>FORKLIFT OPERATOR</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>'711</td>
<td>HAZARDOUS WASTE WORKER/SPILL RESPONSE</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>'714</td>
<td>POLICE/SECURITY GUARD</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>'716</td>
<td>RESPIRATOR USER CERTIFICATION EXAM</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>'702</td>
<td>WASTEWATER/SEWAGE WORKER</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>115</td>
<td>OTHER: ASBESTOS PAST WORKER (10+ YEARS)</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OTHER:</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OTHER:</td>
<td>X</td>
<td></td>
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<td>OTHER:</td>
<td>X</td>
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<td>OTHER:</td>
<td>X</td>
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</tr>
<tr>
<td>OTHER:</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NONE REQUIRED</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
SECTION VI

WORKPLACE MONITORING PROGRAM

The attached Workplace Monitoring Plan presents stressors and/or systems which need to be evaluated periodically during the coming year. Items included on the plan are based on regulations, professional knowledge and information obtained from supervisors. The plan should be reviewed to ensure operational information is correct. The industrial hygienist will have to be contacted when operations are scheduled so your Command's sampling can be completed. Changes or deletions of operations should also be communicated to the Industrial Hygienist so that the Workplace Monitoring Plan can be amended.

Naval Postgraduate School, Monterey
Dudley Knox Library

WORKPLACE MONITORING PLAN

Date prepared: 29 March 2002

<table>
<thead>
<tr>
<th>LOCATION/JOB</th>
<th>STRESSOR</th>
<th>REQUIRED</th>
<th>MEASURING METHOD¹</th>
<th>FREQUENCY</th>
<th>MAN HRS. PER YEAR</th>
</tr>
</thead>
<tbody>
<tr>
<td>None required.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Air samples for each chemical stressor will be collected using sampling methods listed in the Industrial Hygiene Sampling Guide for Consolidated Industrial Hygiene Laboratories, Navy Environmental Health Center Technical Manual NEHC-TM6290.91-2, Revision B, 21 April 2000.

1: Use the following codes to indicate sampler and sampling location:

<table>
<thead>
<tr>
<th>SAMPLER:</th>
<th>SAMPLING LOCATION:</th>
</tr>
</thead>
<tbody>
<tr>
<td>DR-direct reading instrument</td>
<td>GA-general area</td>
</tr>
<tr>
<td>DT-detector tube</td>
<td>BZ-breathing zone</td>
</tr>
<tr>
<td>AT-adsorption tube</td>
<td>HZ-hearing zone</td>
</tr>
<tr>
<td>IM-impinger/bubbler</td>
<td>SZ-source zone</td>
</tr>
<tr>
<td>FI-filter</td>
<td>OT-other (specify)</td>
</tr>
<tr>
<td>ND-noise dosimeter</td>
<td></td>
</tr>
<tr>
<td>PD-personal dosimeter</td>
<td></td>
</tr>
<tr>
<td>OT-other (specify)</td>
<td></td>
</tr>
</tbody>
</table>
APPENDIX A

OPNAV 5100/14 Forms

Reference: (a) OPNAVINST 5100.23E, paragraph 0803.f

This appendix contains the OPNAV 5100/14 forms which are required by reference (a). These forms detail the occupational exposures of employees by work center or functional group. These forms are used to develop the workplace monitoring program in Section VI. They also describe the type of work done in each area and can be used to verify that all work areas were included in the survey.
WORKPLACE INFORMATION

Activity: NPS Monterey Supervisor: Dr. Maxine Reneker Phone: (831)656-2341
Bldg#: 339, Room 169 Shredding Room Shop: Dudley Knox Library

Total Personnel: 1 Male: 1 Female: 0

Shop Operation: Performs paper shredding using the Security Engineered Machinery and Intimus 007 Shredding Machines.

<table>
<thead>
<tr>
<th>Potential Hazard</th>
<th>Inter or Cont.</th>
<th># Workers</th>
<th>Exposure &gt; MSAL?</th>
<th>Controls in Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Noise, paper shredding</td>
<td>Once/week, 30 minutes</td>
<td>1</td>
<td>Yes</td>
<td>Ear muffs and plugs</td>
</tr>
<tr>
<td>-Security Engineered Machinery Model S22</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-Intimus 007 machine</td>
<td></td>
<td></td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>* Reproductive hazard</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

If no exposure > MSAL, provide rationale: The measured noise level of the Intimus paper shredder is below the Navy noise criterion level of 84 dBA.

Signature/Title: S.E. Thurston, Industrial Hygienist
Date: 29 March 2002

MONITORING PLAN

<table>
<thead>
<tr>
<th>Stressor to be Sampled</th>
<th># of Meas. Required</th>
<th>* Measure. Method</th>
<th>**Measure. Location</th>
<th>Frequency per Yr.</th>
<th>Man Hrs. per Yr.</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Engineering Controls in Use

| None                   |                     |                   |                     |                 |                 |

* Use the following Codes:  ** Use the following Codes:
DR-direct reading instrument  GA-general area
DT-detector tube             BZ-breathing zone
AT-adsorption tube          HZ-hearing zone
IM-impinger/bubbler         SZ-source zone
FI-filter                   OT-other (specify)
PDI-personal dosimeter
ND-noise dosimeter
OT-other (specify)
WORKPLACE INFORMATION

Activity: NPS Monterey  Supervisor: Dr. Maxine Reneker  Phone:  (831)656-2341

Bldg#:  339, Room 119 Materials Preservation  Shop:  Dudley Knox Library

Total Personnel:  1  Male:  0  Female:  1

Shop Operation:  Operates drills as part of the document binding process.

<table>
<thead>
<tr>
<th>Potential Hazard</th>
<th>Inter or Cont.</th>
<th># Workers</th>
<th>Exposure &gt; MSAL?</th>
<th>Controls in Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Noise, Togic drill</td>
<td>1-2 hrs/day</td>
<td>1</td>
<td>No</td>
<td>Ear plugs</td>
</tr>
<tr>
<td>Noise, Challenge drill</td>
<td>Daily, 30 mins</td>
<td>1</td>
<td>No</td>
<td>Ear plugs</td>
</tr>
<tr>
<td>* Reproductive hazard</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

If no exposure > MSAL, provide rationale: The calculated noise exposure during use of the Togic drill is below the NPEL of 84 dBA. The measured noise levels of the Challenge drill is below the Navy noise criterion level of 84 dBA.

Signature/Title:  S.E. Thurston,  Industrial Hygienist

Date:  29 March 2002

MONITORING PLAN

<table>
<thead>
<tr>
<th>Stressor to be Sampled</th>
<th># of Meas. Required</th>
<th>* Measure. Method</th>
<th>**Measure. Location</th>
<th>Frequency per Yr.</th>
<th>Man Hrs. per. Yr.</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Engineering Controls in Use

None

* Use the following Codes:
  DR-direct reading instrument
  DT-detector tube
  AT-adsorption tube
  IM-impinger/bubbler
  FI-filter
  PD-personal dosimeter
  ND-noise dosimeter
  OT-other (specify)

** Use the following Codes:
  GA-general area
  BZ-breathing zone
  HZ-hearing zone
  SZ-source zone
  OT-other (specify)
APPENDIX B

CHANGE OF OPERATION NOTIFICATION

Please use this form to notify the industrial hygienist of any changes to operations conducted by your department. The notification form may be copied as needed. The completed forms can be returned to:

NAVAL POSTGRADUATE SCHOOL, MONTEREY
CODE 0223, SAFETY OFFICE (ATTN: INDUSTRIAL HYGIENIST)
1 UNIVERSITY CIRCLE
MONTEREY CA 93943

FOREMAN/SUPERVISOR:                                      EXT:

BLDG:          COMMAND/SHOP: NPS Monterey,
                Dudley Knox Library

WORK AREA:

SURVEY REPORT:  ET-0185

INSTRUCTIONS TO FOREMAN/SUPERVISOR:

The industrial hygiene survey evaluated the potential hazards to your employees based on the operations existing at the time. When your operations change, the potential hazards can also change, and these new conditions must be evaluated. Please contact the industrial hygienist if any of the following occur:

a. Exposure times have changed.
b. New operations are performed.
c. New types of equipment are used.
d. An increase in major chemical usage.
e. New chemicals or chemical products are used.
f. A change in existing exhaust ventilation.

List any changes below.


Date Forwarded:   _______________________

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