From: Officer In Charge, Naval Medical Administration Unit, Monterey Bay
To: Safety Officer, Center for Information Dominance Detachment, Monterey, 412 Rifle Range Road, Monterey CA 93944

Subj: ANNUAL INDUSTRIAL HYGIENE SURVEY OF CENTER FOR INFORMATION DOMINANCE DETACHMENT, MONTEREY

Ref: (a) OPNAVINST 5100.23G, Chapter 8, Section 0803.a

Encl: (1) Industrial Hygiene Survey Report ET-0355

1. As required by reference (a), a periodic industrial hygiene survey of the Center for Information Dominance Detachment, Monterey was conducted from 20 April to 4 May 2006 by the Naval Medical Administration Unit, Monterey Industrial Hygienist. The survey report ET-0355 is forwarded as enclosure (1).

2. 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. The Navy Oversight Inspection Unit and other inspection teams rely on these surveys and the corrective actions taken as indicators of an aggressive and comprehensive Navy Occupational Safety and Health (NAVOSH) Program. In order to provide more effective surveys and allow us to better support your NAVOSH Program, responses to this survey are needed. It is requested that a response to the Findings ET-0355-A, ET-0355-B, and ET-0355-1 be forwarded to the Industrial Hygienist via e-mail at sethurst@nps.edu by 7 July 2006. Alternatively, a written a response can be mailed to the Industrial Hygienist at:

   Naval Support Detachment, Monterey,
   Code N22G, Safety Office
   Attn: Industrial Hygienist
   1870 Morse Drive
   Monterey CA 93943

4. Further clarification or consultation with respect to these findings and recommendations is available from Eric Thurston at commercial (831) 656-3466, e-mail sethurst@nps.navy.mil.

S.E. THURSTON
By direction

Copy to:
Industrial Hygiene Dept, NAVHOSP Lemoore
NAVAL MEDICAL ADMINISTRATION UNIT, MONTEREY BAY

INDUSTRIAL HYGIENE SURVEY

of

CENTER FOR INFORMATION DOMINANCE DETACHMENT, MONTEREY

SURVEY #ET-0355

20 April to 5 May 2006

Survey Conducted By: Eric Thurston,
Industrial Hygienist
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EXECUTIVE SUMMARY

- The command’s hazardous material control program needs improvement, specifically updating the inventory list and obtaining Material Safety Data Sheets (MSDS’s) for all hazardous materials.

- Noise levels of an inoperable riding lawn mower and pressure washer need to be measured.

- A respirator was found sitting on a can of paint in one of the outdoor hazmat lockers. If this respirator is worn by command members, then a formal respiratory protection program needs to be established.

Specific details of these findings can be found in sections II and III of this report. The cooperation of CTI1 Dennis Guhl and CTM2 Ragland was greatly appreciated.
COMMON ABBREVIATIONS AND GLOSSARY

(The following abbreviations may be used in this report)

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACGIH</td>
<td>American Conference of Governmental Industrial Hygienists</td>
</tr>
<tr>
<td>ACM</td>
<td>Asbestos Containing Material.</td>
</tr>
<tr>
<td>AL</td>
<td>Action Level. Normally ½ PEL. Exposure level at which air sampling, employee training, medical surveillance are required.</td>
</tr>
<tr>
<td>ANSI</td>
<td>American National Standards Institute. A national consensus standards developing organization.</td>
</tr>
<tr>
<td>Ceiling</td>
<td>A toxic material exposure level which cannot be exceeded for any length of time.</td>
</tr>
<tr>
<td>CFM</td>
<td>Cubic feet per minute. Air flow rate.</td>
</tr>
<tr>
<td>dBA</td>
<td>A sound level reading in decibels as measured on the A-weighted network of a sound level meter.</td>
</tr>
<tr>
<td>EL</td>
<td>Excursion Limit. Is a concentration limit which cannot be exceeded at any time.</td>
</tr>
<tr>
<td>EPA</td>
<td>Environmental Protection Agency.</td>
</tr>
<tr>
<td>f/cc</td>
<td>Fibers per cubic centimeter. A means for expressing airborne asbestos fiber concentrations.</td>
</tr>
<tr>
<td>FPM</td>
<td>Feet per minute.</td>
</tr>
<tr>
<td>HAZCOM</td>
<td>Hazard communication. A system for training employees about job hazards through the use of chemical inventories, MSDSs, labels, and personnel training.</td>
</tr>
<tr>
<td>HCP</td>
<td>Hearing Conservation Program. A program to prevent hearing loss from exposure to noise through the use of hearing protection, training, and medical surveillance.</td>
</tr>
<tr>
<td>HEPA</td>
<td>High-efficiency particulate air filter. A filter capable of trapping and retaining 99.97% of 0.3 micron diameter, or larger, particles.</td>
</tr>
<tr>
<td>HM</td>
<td>Hazardous material. A material which is a physical or health hazard per 29 CFR 1910.1200.</td>
</tr>
<tr>
<td>HW</td>
<td>Hazardous waste. Any discarded or abandoned hazardous substance as defined in 40 CFR 261.</td>
</tr>
<tr>
<td>LEV</td>
<td>Local exhaust ventilation. Exhaust system at source of contamination.</td>
</tr>
<tr>
<td>mg/m³</td>
<td>Milligrams per cubic meter of air. A means for expressing concentrations of dust and metal fumes in air.</td>
</tr>
<tr>
<td>MMVF</td>
<td>Man made vitreous fibers. (Fiberglass, mineral wool, ceramics)</td>
</tr>
<tr>
<td>MSAL</td>
<td>Medical Surveillance Action Level. A concentration of an air contaminant at which medical surveillance examinations must be provided to exposed personnel.</td>
</tr>
<tr>
<td>MSDS</td>
<td>Material Safety Data Sheet. A form used by manufacturers to communicate to users the chemical and physical properties of their products.</td>
</tr>
<tr>
<td>NAVOSH</td>
<td>Navy Occupational Safety and Health</td>
</tr>
<tr>
<td>NFPA</td>
<td>National Fire Protection Association</td>
</tr>
<tr>
<td>NIOSH</td>
<td>National Institute for Occupational Safety and Health. Recommends safety and health standards for OSHA.</td>
</tr>
<tr>
<td>NOEL</td>
<td>Navy Occupational Exposure Limit.</td>
</tr>
<tr>
<td>OSHA</td>
<td>Occupational Safety and Health Administration.</td>
</tr>
<tr>
<td>OV</td>
<td>Organic vapors.</td>
</tr>
<tr>
<td>PCB</td>
<td>Polychlorinated Biphenyl</td>
</tr>
</tbody>
</table>
**COMMON ABBREVIATIONS AND GLOSSARY**

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
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<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

This detachment coordinates training of and provides administrative assistance for Navy personnel attending foreign language classes at the Army’s Defense Language Institute.

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

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

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

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

Section III - contains industrial hygiene assessments of specific work areas. These address the status of workplace hazards and required control procedures.

Section IV - contains the results of all noise measurement 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.

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

In accordance with reference (b), 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 (c) 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. Only the hazardous material control program and use of noise hazardous equipment need to be reviewed annually. The rest of the command can be reviewed on a 4 year cycle.

Change of Operations Notification:

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

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

Only the hazardous material control, reproductive hazard and hearing conservation programs were reviewed during this survey.

References:  
(a) OPNAVINST 5100.23G, Chapter 7, paragraph 0702g(5)  
(b) OPNAVINST 5100.23G, Chapter 7, paragraph 0702g(4)  
(c) OPNAVINST 5100.23G, Chapter 7, paragraph 0702f(6)  
(d) OPNAVINST 5100.23G, Chapter 18, paragraph 1807a  
(e) OPNAVINST 5100.23G, Chapter 18, paragraph 1803a  
(f) OPNAVINST 5100.23G, Chapter 18, section 1805  
(g) OPNAVINST 5100.23G, Chapter 18, paragraph 1807c  
(h) OPNAVINST 5100.23G, Chapter 29, Appendix 29-B  
(i) Navy Environmental Health Center Technical Manual NEHC-TM92-2

HAZARDOUS MATERIALS CONTROL PROGRAM

Review of this program was limited to the products kept in the outdoor hazardous materials lockers. Use of hazardous materials is limited to household cleaning products, gasoline and oil to fuel the lawn maintenance equipment, several cans of paint used for special projects, and metal polish. Items appearing on the inventory list are cross-referenced to their MSDSs as required by reference (a).

Finding ET-0355-A: A hazardous material inventory list has been developed as required by reference (b), but a spot check indicates several paints are not included. The list is dated CY (calendar year) 2005.  
Recommendation: Update the inventory to include all items, including the different paints, on the list. Ensure that new products are included on the list when they are procured.

Finding ET-0355-B: A spot check of MSDSs required by reference (c) also identified that there are none available for several paints.  
Recommendation: Obtain MSDSs for all hazardous material stored in the hazardous material locker. Ensure that MSDSs are procured for all hazardous materials procured.

HEARING CONSERVATION PROGRAM

Exposure to hazardous noise levels is limited to use of Quick Kleen Sanitaire upright vacuum cleaners, “weed eaters”, lawn mowers, and gasoline-powered leaf blower. Personnel operating this equipment are students awaiting start of language classes or in transition between completion of such classes and their next assignment. It is not practical to schedule these personnel for hearing tests or formal hearing conservation training, or to include them on a roster or data base for inclusion in the command’s hearing conservation program, because of their transient status. However, personnel operating this equipment need to continue wearing hearing protection as required by reference (d).
HEARING CONSERVATION PROGRAM (con’d)

Noise levels of lawn mowers not present or not operable during the previous survey and a new gasoline-powered leaf blower were measured. All this equipment generated noise levels above the Navy noise criterion level of 84 dBA outlined in reference (e). Previous noise measurements of the Quick Kleen Sanitaire upright vacuum cleaners and other lawn mowers indicated hazardous noise levels were generated.

NAVMED 6260/2A noise hazard stickers had been placed on previously measured equipment, and additional stickers were given to the assistant Safety Officer to be placed on the lawn mowers and leaf blower identified as noise hazards during the survey as required by reference (f).

Finding ET-0235-A: The noise level of one of the riding lawn mowers (serial number 13306606013/1K302C2) could not be measured during the survey because it was inoperative. The noise level of the pressure washer could not be measured because it was not set up for use during the survey.

Recommendation: Contact the Industrial Hygienist several days ahead of when the one riding mower is operable and when the power washer is to be used to measure the noise levels.

Reference: OPNAVINST 5100.23F, Chapter 18, paragraph 1804a

Recommendations:

Continue use of hearing protection during operation of lawn mowers, “weed eaters”, and leaf blower to control noise exposure as required by reference (g).

REPRODUCTIVE HAZARDS CONTROL PROGRAM

Materials that contain reproductive hazards as defined in reference (h) is limited to toluene and carbon monoxide, both developmental reproductive hazard, during refueling and operation of lawn maintenance equipment. Based on minimal usage of gasoline and dilution of exhaust with outdoor air, significant exposures are not expected.

Recommendations:

In order to properly control reproductive hazards in the workplace, employees need to follow the follow procedures:

- Women need to inform their supervisor as soon as possible that they are pregnant, completely fill out the questionnaire provided by reference (i), and request an evaluation by the occupational health nurse from the Presidio of Monterey medical clinic and the Industrial Hygienist.

- Male employees anticipating conceiving children within 120 days or whose partner is currently pregnant need to notify their supervisor so that a reproductive/developmental hazard evaluation can be performed.

- Personnel should follow all recommendations from the group above regarding exposure to reproductive hazards in the workplace.
SECTION III

INDUSTRIAL HYGIENE ASSESSMENT

ACTIVITY: CID DET Monterey FILE NO.: ET-0355 DATE: 20 April 2006
POC: CTI1 Dennis Guhl LOCATION: Buildings 629 A and B, Presidio of Monterey
IND. HYG: Eric Thurston

FUNCTION: This detachment coordinates training of and provides administrative assistance for Navy personnel attending foreign language classes at the Army’s Defense Language Institute. Building 629A provides barracks and office space for command personnel. Use of hazardous materials is limited to household cleaning products and gasoline and motor oil for fueling of lawn mowers and “weed eaters”, and occasional use of paint for self help projects and small amounts of metal polish. Lawn maintenance is performed both riding and push mowers, “weed eaters”, and a gasoline-powered leaf blower. A large paper shredding machine, located in the Vault, and several smaller shredding machines are in use. Plastic and brass nameplates for new command personnel are produced using a small engraving machine. Small amounts of metal polish are used to polish metal surfaces. Upright vacuum cleaners and an upright portable carpet cleaner are used to clean carpets. Heavy lifting is limited to rare moving of office furniture, and no back injuries have occurred from performing this job. Desktop computers are used, although constant typing is not performed, thus preventing repetitive stress injuries to the upper body.

INDUSTRIAL HYGIENE ASSESSMENT

The following operations potentially expose personnel to hazardous occupational stressors:

1. Noise during operation of lawn mowers, “weed eaters”, and a leaf blower. Exposure is controlled by use of ear plugs or muffs.
2. Noise during operation of the power washer. Personnel wear hearing protection during its use. The noise level needs to be measured.

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

1. Carbon monoxide during operation of lawn mowers, “weed eaters”, and leaf blower. Insignificant levels are expected based on dilution with outdoor air.
2. Solvents during use of household cleaning products. Significant exposure is unlikely based on minimal usage of low toxicity products.
3. Toluene, petroleum distillates, and oils during refueling of lawn maintenance equipment. Significant exposure is unlikely based on short duration exposure to gasoline and motor oils during refueling operations performed outdoors, when concentration would be lessened by dilution with outdoor air.
4. Noise and nuisance dust during operation of paper shredding machines. Measured noise levels are below the Navy noise criterion level of 84 dBA and low rpm machines will not inherently produce significant levels of airborne dust.
5. Noise and nuisance, copper, and zinc oxide dust during operation of the engraving machine to make nameplates. The measured noise level of the engraving machine is below the Navy noise criterion level of 84 dBA and significant levels of airborne dust are unlikely based on brief job duration.
6. Petroleum distillates during use of metal polish. Significant exposure is
unlikely based on minimal usage.
The following operations will not expose personnel to hazardous occupational stressors in excess of established health standards (cont.):

8. Noise during operation of upright vacuum cleaners and an upright carpet cleaner. The measured noise levels of the Quick Kleen Sanitaire upright vacuum cleaners and the Rug Doctor upright carpet cleaner are above the Navy noise criterion level of 84 dBA, but the calculated average noise exposures during their use is below the NOEL of 84 dBA. The measured noise level of the Kent upright vacuum cleaners is below the Navy noise criterion level of 84 dBA.

The following operations potentially expose personnel to stressors identified by OPNAVINST 5100.23F, Chapter 29, Appendix 29-B as reproductive hazards:

1. Carbon monoxide, which is a developmental reproductive hazard, during operation of lawn mowers, “weed eaters”, and leaf blower.
4. Toluene, which is also a developmental reproductive hazard, during refueling of lawn maintenance equipment.

Exposures are expected to be minimal as discussed above. Personnel who wish reproductive hazards counseling should contact the occupational health department of the Presidio of Monterey Army Clinic.

Finding ET-055-1: An American Optical Safety blue silicone rubber half mask respirator was found sitting on a can of paint in the hazardous material locker. This is improper storage for a respirator. The survey points of contact for the command could not identify what the respirator is worn for or who wears it. The command does not have a respiratory protection program established for use of this respirator.

Recommendation: If the respirator is worn, it must be stored in a designated clean area and not the hazmat locker. Determine who is wearing the respirator and the job(s) that it is worn during, and contact the Industrial Hygienist to assess whether a respirator is deemed necessary. If the user(s) continues to wear a respirator, a respiratory protection program must be established to include:
- identification of a Respiratory Protection Program Manager (RPPM),
- specific training for the RPPM,
- user training,
- respirator facial fit testing,
- inspection and cleaning of respirators, and
- proper storage of respirators.

The command could request that another command with an RPPM already identified provide services.

Reference: OPNAVINST 5100.23G, Chapter 15
SECTION VI

INDUSTRIAL HYGIENE SURVEY DATA

This Section contains the noise measurement data collected in support of this survey. It should be noted that the measured levels 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. Documentation concerning the types of instruments used and their calibration records are held by the Naval Medical Admin Unit, Monterey Industrial Hygienist.
NOISE SURVEY DATA SHEET (FRONT)

To be mailed to command
To be mailed to command.
SECTION V

MEDICAL SURVEILLANCE

Medical surveillance for staff personnel is unnecessary based on an assessment of operations performed by this command. Medical surveillance of students for noise exposure and sight conservation is impractical because they would transition out of this command before surveillance exams could be performed.
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.

Center for Information
Dominance Detachment, Monterey

WORKPLACE MONITORING PLAN

Date prepared: 8 May 2006

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


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

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

**SAMPLING LOCATION:**
- GA-general area
- BZ-breathing zone
- HZ-hearing zone
- SZ-source zone
- OT-other (specify)
APPENDIX A

OPNAV 5100/14 Forms

Reference: (a) OPNAVINST 5100.23G, Chapter 8, 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:** Center for Information Dominance Detachment, Monterey

**POC:** CTI1 Dennis Guhl  
**Phone:** (831)656-5525  
**Bldg#:** 629A and B

**Total Personnel:** 58 staff (6 officers, Male: 3 officers  
Female: 3 officers,  
52 enlisted)  
40 enlisted  
12 enlisted

**# of students varies**

**Shop Operations:**

Provides administrative support for students attending foreign language training classes in conjunction with the Army’s Defense Language Institute (DLI). Use a minimal amount of low toxicity cleaning supplies. Operates several gasoline/oil-powered push and two riding lawn mowers, several “weed eaters”, and a leaf blower in support of lawn maintenance. Performs document shredding using small basket and one large (located in the “Vault”) shredding machines. Makes plastic and brass nameplates using an engraving machine. Operates approximately 12 upright vacuum cleaners and one upright carpet cleaner. Polishes metal surfaces with Luster Pad Metal Polish. Heavy lifting is limited to occasional moving of furniture in the building. Operates and uses desktop computers. Occasionally performs exterior cleaning using a pressure washer.

<table>
<thead>
<tr>
<th>Potential Hazard</th>
<th>Inter or Cont.</th>
<th># Workers Exposed</th>
<th>Exposure &gt; MSAL?</th>
<th>Controls in Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low toxicity cleaning products</td>
<td>Daily, 1 hr, 8 ozs/week</td>
<td>Varies (Students)</td>
<td>No</td>
<td>Nitrile rubber gloves</td>
</tr>
<tr>
<td>*Toluene, motor oils, refueling lawn maintenance equipment</td>
<td>Gasoline: 1 gallon/3 mos. Oil: 1 pint/3 months</td>
<td>Varies (Students)</td>
<td>No</td>
<td>Nitrile rubber gloves</td>
</tr>
<tr>
<td>Noise, *Carbon monoxide, operation of riding and walk-behind lawn mowers, “weedeaters”, and leaf blower</td>
<td>Once/2 weeks, 2 hrs/time (Students)</td>
<td>Varies (Students)</td>
<td>Yes for noise, No for carbon monoxide</td>
<td>Ear plugs or muffs, grinding goggles or helmet with mesh face-shield, dust mask (elective)</td>
</tr>
<tr>
<td>Noise, nuisance dust, paper shredding machines</td>
<td>Daily, 5 mins</td>
<td>25</td>
<td>No</td>
<td>None</td>
</tr>
<tr>
<td>Plastic dust, copper and zinc oxide dust, engraving plastic and brass tags</td>
<td>Once/2 weeks, 5 minutes</td>
<td>1</td>
<td>No</td>
<td>None</td>
</tr>
<tr>
<td>Petroleum distillates, Luster Pad Metal Polish</td>
<td>Weekly, one 2 pound can/2 years</td>
<td>Varies</td>
<td>No</td>
<td>None</td>
</tr>
</tbody>
</table>

* Reproductive hazard  
(See I. H. assessment)
<table>
<thead>
<tr>
<th>Potential Hazard</th>
<th>Inter or Cont.</th>
<th># Workers Exposed</th>
<th>Exposure &gt; MSAL?</th>
<th>Controls in Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Noise, upright vacuum cleaners</td>
<td>Daily, 10 mins</td>
<td>Varies (Students)</td>
<td>No</td>
<td>None</td>
</tr>
<tr>
<td>Noise, upright carpet cleaner</td>
<td>As needed, 10 minutes</td>
<td>Varies (Students)</td>
<td>No</td>
<td>None</td>
</tr>
<tr>
<td>Ergonomics, heavy lifting time varies</td>
<td>Unplanned, N/A</td>
<td>Varies</td>
<td>N/A</td>
<td>None</td>
</tr>
<tr>
<td>Ergonomics, desktop computer use</td>
<td>Daily, up to 8 hours</td>
<td>58</td>
<td>N/A</td>
<td>None</td>
</tr>
<tr>
<td>Noise, power washer</td>
<td>Every other month, as needed</td>
<td>Varies</td>
<td>Yes</td>
<td>Hearing and eye protection</td>
</tr>
<tr>
<td>* Reproductive hazard (See I. H. assessment)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

If no exposure > MSAL, provide rationale:

Use of minimal amounts of low toxicity cleaning products will not result in exposures above the MSALs or PELs. Toluene and other chemicals present in gasoline and oils will not exceed the MSALs or PELs based on brief exposure to minimally used products. Carbon monoxide levels above the PEL-Ceiling are not expected based on dilution with outdoor air. The measured noise levels of the engraving and paper shredding machines are below the Navy noise criterion level of 84 dBA. Nuisance dust exposure during operation of the paper shredder is unlikely to exceed the MSAL because they are low rpm machines that do not inherently generate noticeable levels of dust. Plastic, copper and zinc oxide dust exposures during engraving of nameplates are not expected to exceed the MSALs based on brief duration of use. Significant petroleum distillates exposures during use of metal polish are unlikely to exceed the MSAL based on minimal usage. The calculated noise exposures of the upright Sanitaire vacuum cleaners and Rug Doctor upright carpet cleaner are not expected to exceed the noise NOEL of 84 dBA based on measured noise levels and time of exposure. The measured noise level of the Kent Commercial Vacuums is below the Navy noise criterion level of 84 dBA.

Signature/Title: ____________________________ Date: 21 April 2006

S.E. Thurston,
Industrial Hygienist
### 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>
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<td>Engineering Controls in Use</td>
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</tbody>
</table>

* 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 SUPPORT DETACHMENT, MONTEREY
CODE N22G, SAFETY OFFICE (ATTN: INDUSTRIAL HYGIENIST)
1870 MORSE DRIVE
MONTEREY CA 93943

FOREMAN/SUPERVISOR:                                            EXT:
BLDG:          COMMAND/SHOP: CENTER FOR INFORMATION            WORK AREA:
               DOMINANCE DETACHMENT,
               MONTEREY

SURVEY REPORT:  ET-0355

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: ________________