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MARINE CORPS RECRUIT DEPOT/WESTERN RECRUITING REGION
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DepO 6260.5
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DEPOT ORDER 6260.5

From: Commanding General
To: Distribution List

Subj: ASBESTOS CONTROL AND PROTECTION

Ref: (a) OPNAVINST 5100.23D
(b) SECNAVINST 5212.10A

Encl: (1) Requirements, controls, and procedures for employee protection while working with materials containing asbestos fibers.

1. Purpose. To provide guidance for controlling or eliminating the exposure of Navy, Marine Corps, and other DOD personnel to asbestos during the use, removal, and disposal of asbestos materials as outlined in the references.

2. Background. Asbestos is a general term that applies to a variety of mineral silicates, e.g., chrysotile, amosite and crocidolite, or any mineral that has been chemically treated, and/or altered, etc. It is a fibrous material which is incombustible, possesses high tensile strength, has good thermal properties, and has moderately to good chemical resistance. Asbestos is found in a variety of products, to include flooring products, automotive brake and clutch facings, cement pipes, sheet metals, paints, and thermal or acoustical insulation.

3. Information The Depot's policy is to eliminate asbestos exposure by instituting strict engineering and administrative controls. Therefore, the use of respiratory protective equipment and clothing will be utilized when dealing with asbestos. Asbestos and asbestos-containing materials will not be used in the construction, repair, or maintenance of structures at the Depot.

4. Action. Personnel involved with handling or usage of asbestos-containing material are responsible for compliance with the contents of this Order. Specifically, the requirements outlined in the enclosures are the health and safety requirements to protect active duty and civilian personnel.

5. Responsibilities

a. Commanding officers will ensure that:

(1) Control measures, monitoring procedures, and prescribed operations and maintenance plans (i.e., OSHA and EPA standards) are applied to processes using asbestos or asbestos-containing materials.

(2) All personnel working with asbestos-containing material are trained in asbestos control requirements.

b. Depot Safety Manager will:

(1) Ensure all asbestos work sites are inspected for compliance with the provisions of the references (e.g., adequate and approved personal protective equipment, adequate ventilation, appropriate warning signs, proper packaging, disposal methods, etc.).

(2) Provide supervisors of the asbestos control program to ensure compliance with health and safety requirements.

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(3) Provide training to supervisors and personnel directly involved with asbestos operations.

c. Occupational Health Department, Naval Medical Center will:

(1) Conduct asbestos preplacement periodic and termination evaluations.

(2) Maintain records of asbestos-related incidents per applicable instructions.

d. Industrial Hygiene Department, Naval Medical Center will:

(1) Establish a workplace monitoring plan to characterize exposures for every employee occupationally exposed to asbestos.

(2) Provide training and consultative assistance to the Depot Safety Manager and supported commands as requested.

(3) Provide MCRD with copies of all asbestos monitoring documents. MCRD will retain all records indefinitely.

e. Environmental Protection Technician will:

(1) Ensure personnel exposed to asbestos utilize the appropriate respiratory equipment as outlined in reference (b).

(2) Ensure personnel included in the asbestos medical surveillance program (AMSP) receive required medical follow-up and training annually.

(3) Receive and maintain training required to collect bulk asbestos samples.

6. Applicability. This Order applies to all activities, tenant commands, military, civilian and nonappropriated fund employees aboard the Marine Corps Recruit Depot, San Diego. Contractors and subcontractor personnel will be required to conform to portions of this Order specifically delineated in the contract and also follow the regulations outlined in the references.



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REQUIREMENTS, CONTROLS, AND PROCEDURES FOR EMPLOYEE PROTECTION
WHILE WORKING WITH MATERIALS CONTAINING ASBESTOS FIBERS

1. REQUIREMENTS. Permissible exposure limit (PEL) and excursion limit (EL) are two standards. The PEL is 0.1 fibers per cubic centimeter (f/cc) of air, calculated as an eight hour time weighted average (TWA) exposure. The maximum exposure should not exceed 0.2 fibers per cubic centimeter (f/cc) of air. Fibers are defined as rod shaped particles having a length-to-width ratio of three (or more) to one (3:1) and longer than 5 micrometers. The EL is one fiber per cubic centimeter (f/cc) averaged over a 30 minute sampling period. Its maximum is two fibers per cubic centimeters (f/cc).

2. NOTIFICATION. Individuals found exposed to airborne concentrations of asbestos fibers in excess of the PEL at any time during the course of their employment will be notified in writing of the exposure as soon as practical, but not later than five days after the finding. The individual will also be notified of corrective action(s) being taken. For all other air sampling results less than the permissible exposure limit (PEL), the individual shall be notified within 15 working days after receipt of the monitoring results. Notification shall be in writing individually or be posted in an appropriate location that is accessible to the affected employees.

3. CONTROLS

a. General

(1) It is the Depot's policy to use only asbestos-free materials in place of asbestos-containing materials. Asbestos will be handled, mixed, applied, removed, cut, scored, or otherwise worked in a wet state sufficient to prevent the emission of airborne fibers in excess of the PEL. No asbestos cement, mortar, coating, grout or similar material containing asbestos will be removed from its container without being either wetted or ventilated. The replacement or substitution of friable asbestos-containing materials, thermal insulation, and sprayed-on asbestos must be of primary concern because they are loosely bound and may be easily crumbled or pulverized. Under no circumstances shall any materials containing asbestos be applied by spray methods. Specific procedures for the containment of asbestos dust and handling of asbestos-containing materials shall be instituted to minimize the possibility of secondary air contamination. Clean-up procedures based on wetting the material and use of high efficiency particulate air (HEPA) filtered vacuum cleaning for removal of debris will be employed. Shoveling and dry sweeping are prohibited during cleanup of asbestos.

(2) Asbestos waste, scrap, debris, bags, containers, equipment and asbestos-contaminated clothing (consigned for disposal) which may produce airborne concentrations of asbestos fibers in excess of the PEL will be collected and disposed-of in sealed impermeable bags and appropriately labeled. Containers shall be color coded (i.e., red is danger, yellow is caution, and green is clear) to ensure easy recognition, and asbestos waste will be double bagged and disposed of in accordance with applicable regulations (i.e., OSHA and EPA standards).

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(3) Strict adherence to dust control measures to minimize airborne asbestos fibers during removal of asbestos are the most important and effective means of reducing waiting time to reoccupy a work space after cleanup. No asbestos controlled area shall be reopened for general access (nor air sampling conducted) until the area has first been thoroughly cleaned and inspected by appropriate personnel.

b. Lunchrooms. Separate lunchroom facilities will be provided for employees who work in areas where their airborne exposure to asbestos is above the permissible exposure limit (PEL). These facilities will have positive pressure, filtered air supplied and be readily accessible. Further, employees shall not use such facilities unless they have washed their face, hands, and have removed all surface asbestos from their outer layer of protective clothing by vacuuming and discarding the outer layer of impervious clothing in designated changing areas.

c. Ventilation. Local exhaust ventilation is required to ensure that atmospheric levels of asbestos do not exceed the PEL. Specific guidance for each asbestos operation will be obtained from the cognizant industrial hygienist, general requirements for the design and use of ventilation to reduce exposures follow:

(1) Fixed exhaust ventilation connected to HEPA filters will be provided at the point of airborne fiber generation. Exhaust velocities must be high enough, under the specific environmental conditions, to maintain negative pressure and move any generated asbestos fibers to air collection/filtration devices. In addition, duct transport velocities will be high enough to prevent accumulation of fibers in the duct and clean-out points. Ventilation systems used to control asbestos exposures or emissions will not be directly exhausted to another work area or to the outside environment unless the ventilation system has HEPA filters and has been approved for such use by the cognizant industrial hygienist. Recirculation of filtered air from asbestos operations is absolutely prohibited.

(2) Local exhaust ventilation and dust collection systems must be designed, constructed, installed, and maintained in accordance with applicable regulations (i.e., OSHA and EPA standards).

(3) All hand-operated and power-operated tools, which may produce or release asbestos fibers in excess of the PEL, will be provided with a local exhaust ventilation system.

(4) Exhaust filtration systems must be meticulously maintained to prevent performance degradation. Such maintenance work must be performed in accordance with the current regulations (i.e., OSHA and EPA standards).

d. Personal protective clothing and related facilities. Personnel engaged in handling asbestos-containing materials during "rip-out" operations, or in situations where the concentration of airborne fibers is likely to exceed the PEL, will wear the protective clothing listed below:

(1) Respiratory protection meeting guidelines specified in reference (a) shall be provided.

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(2) Full-body and one-piece disposable coveralls constructed of Tyvek material, or comparable substitute.

(3) Hoods (head covering), constructed of Tyvek material, will extend beyond the collar of the coverall and completely protect the neck area.

(4) Medium weight rubber gloves and a thin cotton "under glove" to absorb perspiration.

(5) Slip resistant plastic shoe covers, heavy polyethylene shoe covers with slip resistant soles, or light weight rubber boots.

(6) Face shields, vented goggles, or other appropriate protective equipment.

(e) Changing rooms will be provided as close as practicable to the asbestos work area(s). Protective clothing removal procedures will include vacuuming of clothing (before removal and while still wearing a respirator if one was required for the task) and using a HEPA filter vacuum approved by the cognizant industrial hygienist. Removal of asbestos fibers from clothing by blowing or shaking is prohibited.

(f) Shower facilities shall be located between the "clean" and "dirty" changing rooms. Changing rooms will have a separate clothing locker for each employee to prevent contamination of the employee's street clothes. Employees are not to leave the changing room wearing any clothing or equipment worn during asbestos operations. Supervisors must ensure that employees who work in area where asbestos exposure is at/or above the PEL, shower at the end of their work shift.

(g) Laundering of asbestos contaminated clothing will only be done to prevent release of airborne asbestos fibers in excess of the AL. Contracts governing the laundering of asbestos-contaminated clothing will specifically require that contractors to comply with the precautions specified in either reference (a) paragraph (h)(3), or reference (b) paragraph (i)(2) and include specific notice of the asbestos related hazards and requirements that the contractor notify his/her personnel of the associated hazards. Asbestos-contaminated clothing shall be sealed in impermeable bags and transported in containers with an affixed standard "warning label" as described in paragraph (g).

e. Control Measures.

(1) Engineering control measures and work practices will be employed to control and contain airborne asbestos fibers at the lowest feasible level. Compliance with the PEL must not be achieved by employee rotation, nor by the use of respirators alone, except under the following conditions:

(a) During the time period necessary to commence engineering control measures.

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(b) In work situations where control methods are not sufficient to maintain the airborne concentration of asbestos fibers below the permissible exposure limit (PEL).

(c) During work operations in which engineering and work practice controls are not feasible (e.g., during ripout, demolition, maintenance, repair, etc.).

(d) In work situations in which engineering and workplace controls are feasible and implemented, but no industrial hygiene monitoring data exists to corroborate that such controls have reduced the exposure levels below the permissible exposure limit (PEL).

(e) During emergencies.

(2) A respiratory protection program shall be established as prescribed by references (a) and (b).

(3) Respirators approved by the National Institute for Occupational Health (NIOSH) and the Mine Safety and Health Administration (MSHA) under 30 CFR part 11 (NOTAL) will only be used. The following apply:

Airborne concentration of asbestos	Required Respirator (see notes)
Not in excess of 1 f/cc (10 x PEL)	Half-mask air-purifying respirator equipped with high efficiency filters (other than a disposable respirator).
Not in excess of 5 f/cc (50 x PEL)	Full facepiece air-purifying respirator equipped with high-efficiency filters.
Not in excess of 10 f/cc (100 x PEL)	Any powered air-purifying respirator equipped with high-efficiency filters. Any supplied-air respirator operated in continuous flow mode.
Not in excess of 100 f/cc (1000 x PEL)	Full facepiece supplied air respirator operated in pressure demand mode.
Greater than 100 f/cc (>1000 x PEL)	Full facepiece supplied-air respirator operated in pressure demand mode equipped with an auxiliary positive pressure self-contained breathing apparatus.

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NOTE 1: Respirators assigned for use at higher environmental concentrations may be used at lower concentration.

NOTE 2: A high-efficiency filter is at least 99.97 percent efficient against mono-dispersed particles of 0.3 micrometers or larger.

NOTE 3: Breathing air or sources of breathing air for self-contained breathing apparatus and supplied-air respirators shall comply with the requirements of reference (b) chapter 15.

(4) Personnel will not use respirators if it is determined that the employee will be unable to function normally wearing a respirator, or that the safety, health of the employee, or other personnel will be impaired by his/her use of a respirator.

f. Respirator fit

(1) All personnel issued negative pressure respirators for protection against airborne asbestos fibers will be fit-tested to ensure the least possible facepiece leakage. Fit tests will be performed at least the time of initial fitting and at least every six months thereafter, and fit testing will be conducted in accordance with the Department of Labor (OSHA) mandated procedures. Qualitative fit tests may be used only for testing the fit of half-mask respirators (i.e., when the airborne concentration of asbestos fibers is less than 10 times the permissible exposure limit (PEL) or 1.0 f/cc).

(2) Respirator fit testing records will be maintained on file for a period of three years and include the following information: name of test subject, date of test, type of respirator, respirator brand name, model, test method, test results and name of instructor/tester.

g. Asbestos warning signs and labels

(1) Warning signs will be provided by the Depot Safety Office and displayed at each location where airborne concentration of asbestos fibers may exceed the PEL. Signs will be posted at sufficient distance from the work area so that personnel may read the signs and take necessary steps before entering the area. The warning sign will state:

DANGER
ASBESTOS
CANCER AND LUNG DISEASE HAZARD
AUTHORIZED PERSONNEL ONLY
RESPIRATORS AND PROTECTIVE CLOTHING ARE REQUIRED ON THIS AREA

(2) Warning labels will be affixed to containers of raw materials, mixtures, scraps, waste, debris, and other products containing asbestos fibers. The warning labels will be printed in letters of sufficient size, and contrast as to be readily visible and legible. These labels must comply with 29 CFR 1910.1200, Hazard Communication Standard requirements and include the following information:

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DANGER
CONTAINS ASBESTOS FIBERS
AVOID CREATING DUST
CANCER AND LUNG DISEASE HAZARD

4. Disposable procedures. In disposing asbestos, waste must be wetted prior to double bagging in heavy-duty plastic bags (at least 6 millimeters thick), or other suitable impermeable containers. All bags or containers must be provided with standard asbestos warning labels and be distinctively color-coded to assure easy recognition. Dumpsters shall be labeled "ASBESTOS WASTE ONLY." Exercise care to prevent bags and other containers from rupturing when being moved to a dumpster, or other suitable vehicle for transport to a proper disposal site.

5. Training

a. All DOD personnel who work with or handle asbestos excess of the medical surveillance action level will receive annual training. These training will include:

- (1) The health effects/hazards of asbestos.
- (2) Association between smoking tobacco products and asbestos exposure in producing lung cancer.
- (3) Asbestos controls and work practices.
- (4) Proper use and limitations of protective equipment.
- (5) Purpose and description of medical surveillance program.
- (6) Description of emergency and clean-up procedures.

b. Training records will be maintained by the Depot Safety Office. These will identify the employee, date of training, and signature of trainer. These records must be retained for a period of no less than five years.

5. Asbestos Monitoring Plan. An asbestos monitoring plan will be established to characterize exposures for every employee occupationally exposed to asbestos. Both personal and environmental air sampling monitoring shall be performed. Personal air samples shall be collected in the breathing zone. These will then be analyzed with current regulations.

6. Asbestos medical surveillance program (AMSP) evaluation. This program consists of preplacement, periodic, and termination evaluations. The scope to these evaluations includes, but is not limited to history questionnaires, physical examinations, chest x-rays, spirometry testing, and other laboratory tests as indicated, or directed by the early detection of changes in specific organ systems which have been identified with asbestos disease. Those

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individuals who, because of the nature of their job must work with, or be in the vicinity of operations which generate airborne asbestos and who meet the requirements below shall be included in the medical surveillance program. Inclusion is not based solely on personal accounts of examination.

a. Criteria for inclusion of personnel in the AMSP:

(1) Inclusion of any employee in the asbestos medical surveillance program (AMSP) will be governed by his or her degree of past and/or current exposure to asbestos. Inclusion of a particular individual in the AMSP is required, if the exposure criteria in paragraph (b) below, are reached or exceeded.

(2) For past exposures to asbestos, medical personnel attempting to determine whether to place an individual in the asbestos medical surveillance program (AMSP) must be guided by the exposure history in the absence of more definitive exposure records. A history of participation in any operation where visible asbestos dust was present, including but not limited to rip-out, shall be considered to have been an exposure in excess of the action level (AL). In addition, individuals working in areas where the asbestos concentration did not equal or exceed the AL during the past year, but who believe they have been exposed to undetermined levels of asbestos fibers at some time during the course of their employment, shall complete the initial medical questionnaire (DD Form 2493-1). Based on review of the questionnaire, individuals shall be placed in the AMSP if it can be reasonably concluded, that their exposure(s) could have been at, or above the AL. The placement of personnel in the AMSP, is based on a history of exposure or potential exposure at, or above the AL as judged by cognizant medical personnel. Once placed in the AMSP, the individual will remain in the AMSP for the duration of employment.

b. Medical surveillance initiation program.

(1) Non-construction employees must be placed in the AMSP if they are required to enter, or work in an area where the airborne asbestos concentration is at or above the action level (AL) of 0.1 f/cc, as an eight (8) hour time weighted average (TWA).

(2) Construction workers must be placed in the AMSP if they are required to enter, or work "on a regular basis," in an area where the airborne asbestos concentration is at, or above the AL of 0.1 f/cc, for any length of time per day, or if they are required to wear negative pressure respirators. "On a regular basis" is defined as 15 separate days in any quarter during the calendar year or maximum of 30 days per year.

c. Work performed by private contractors within the depot which may involve the release of asbestos fibers shall contact the Facilities Division to ensure contractual and environmental compliance is incorporated and that the references, and/or specific clauses necessary to ensure that:

(1) The contractor is aware of the potential hazard to his/her employees and Navy/Marine Corps personnel.

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(2) The contractor shall take special precautions to protect his/her employees and Navy/Marine Corps personnel from exposure to asbestos fibers in excess of the PEL.

(3) The contract clause shall require the contractor to measure, and control asbestos fibers outside the asbestos boundary to less than the OSHA AL. In addition, controlled/regulated areas shall meet this criteria prior to release for unrestricted access. Appropriate monitoring, enforcement of the contract provisions are the responsibility of the official who has cognizance for contract compliance, and shall be coordinated with the cognizant industrial hygienist.