

DEPARTMENT OF THE NAVY

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CNIC INSTRUCTION 5100.1

From: Commander, Navy Installations Command

Subj: ASBESTOS MANAGEMENT PROGRAM

Ref:

- (a) OPNAVINST 5100.23
- (b) OPNAVINST 5090.1
- (c) DoD 4715-15-G, Overseas Environmental Baseline Guidance Document of 15 Mar 00

Encl: (1) Asbestos Management Plan

- 1. <u>Purpose</u>. The purpose of this instruction is to provide policy guidance and assignment of responsibilities for the coordination of a comprehensive asbestos management program at Navy region commands and installations.
- 2. <u>Background</u>. The asbestos management program serves as the principal method for Commander, Navy Installations Command (CNIC), to implement standards for the periodic inspection, sampling, control, evaluation, maintenance, and abatement of asbestos containing material (ACM) as specified by references (a) through (c) as well as applicable Overseas Final Governing Standards (FGS).
- 3. <u>Objective</u>. The primary objective of the asbestos management program is to protect personnel onboard Navy installations from harmful exposures to airborne asbestos fibers through:
 - a. Periodic inspection of all asbestos materials;
- b. Operations and maintenance activities that repair, encapsulate, or remove asbestos containing material;
- c. Documentation and notification of asbestos-related activities; and
- d. Strict compliance with this instruction and all other applicable federal, state, and local laws and regulations.

4. Scope and Applicability. This instruction applies to all Navy installations in the United States, its territories and possessions, and overseas. This instruction applies to all facilities, structures and op ations on Navy installations where asbestos is found.

5. Responsibilities

- a. Regional and Installation Safety Departments. Safety Managers are responsible for Navy occupational safety and health compliance related to all asbestos work. Safety managers, working in coordination with Navy or contractor industrial hygiene professionals, shall take all necessary steps to prevent worker asbestos exposure issues, including personal or area air sampling for friable asbestos. At regional and installation levels:
- (1) Safety managers are assigned overall responsibility for Navy asbestos worker protection involving all regulatory issues on asbestos worker exposure including federal regulatory requirements specified in reference (a) for listed toxic and hazardous substances in general industry (29 CFR 1910.1001) and construction (29 CFR 1926.1101). In addition, safety managers are responsible for ensuring that occupants of buildings (that contain asbestos) are not exposed to asbestos that has the potential to release airborne asbestos fibers.
- (2) Safety managers will work closely with the designated respiratory protection program manager. The respiratory protection program manager will implement written policies and procedures per reference (a) including implementation of proper medical surveillance program requirements.
- (3) Contractors are responsible for the supervision of contractor asbestos removal personnel.
- b. Regional and Installation Environmental Departments. Unless otherwise designated in writing by the regional or installation commanding officer, the installation environmental department shall be the lead in all regulatory matters involving the collection, storage, transportation and disposal of government-generated asbestos-containing waste material (ACWM). Environmental provides regulatory support, oversight and direction. Environmental departments coordinate disposal and

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provide regulatory support, oversight and direction, but does not fund the disposal cost. For government generated ACM, Facilities fund the disposal and perform the ACM handling and disposal. For ACM generated during contractor projects, the project funds the disposal, and the contractor performs ACM handling and disposal. The environmental department shall perform Environmental Quality Assessments of the Asbestos Management Program to ensure compliance with National Emissions Standards for Hazardous Air Pollutants (NESHAP) requirements. Additionally, the environmental department shall provide regulatory interface between the installation and federal, state, and local environmental agencies with respect to asbestos containing waste material. Preparation of federally mandated National Environmental Policy Act (NEPA) documentation prior to construction contract award for all proposed projects on Navy installations including any activity involving known or presumed contact with asbestos material that may generate asbestos containing waste. Simple Categorical Exclusion (CATEX) NEPA documents may be prepared by the Facilities' Program.

- c. Regional and Installation Facility Departments. A representative from the installation facility department shall serve as the installation asbestos program manager. The installation asbestos program manager shall work closely with installation safety and environmental departments to ensure compliance with all applicable asbestos regulations. Asbestos program manager responsibilities shall include serving as lead for:
- (1) Implementation of the asbestos operation and maintenance plan and principal point of contact for completion of federal, state, and local laws and compliance requirements for documentation and notification of all asbestos-related activities.
- (2) Completion of building surveys to determine if ACM or presumed asbestos containing materials (PACM) are present anywhere in a building, and if so, determine the location, square footage and type of asbestos present from bulk sampling of ACM or PACM. Specific responsibility for such surveys is to ensure that the required determination for the presence of friable and non-friable ACM or the presence of PACM is completed before any demolition; repair or renovation work is done.

- (3) Asbestos project design and abatement. Asbestos designers assigned to asbestos project design and abatement shall complete specialized training in accordance with appendix 17-B of reference (a). Assigned project designers shall use data gathered by asbestos inspectors to assess potential asbestos hazards and prepare asbestos remediation plans. Asbestos project plans shall include scope, timing, phasing and determination of remediation methods and specifications for any asbestos project.
- (4) Completion of an annual review and update of the installation asbestos management plan, and the operations and maintenance (O&M) plan.
- (5) Implementation of federal Environmental Protection Agency (EPA) rules on Asbestos Hazard Emergency Response Act (AHERA), 40 CFR 763, and the 1992 Asbestos School Hazard Abatement Reauthorization Act (ASHARA). AHERA responsibility includes documentation of ACM management in schools (including child day care facilities) and ASHARA regulations extended AHERA regulations to cover public and commercial buildings.
- (6) Implementation of EPA Clean Air Act amendments on NESHAP, 40 CFR 61. NESHAP responsibility involves documentation of installation compliance with state and federal emission control procedures and appropriate work practices during collection, packaging, transportation or disposal of friable ACM waste.
- d. All other departments and tenant commands will comply with the requirements for handling and/or possessing asbestos material as specified in enclosure (1). Smaller installations with host-tenant relationships may use the building manager or facility representative to act as the liaison with the host installation when a written agreement exists specifying that the host installation is responsible for carrying out asbestos program management responsibilities. Each host or tenant command shall provide annual asbestos awareness training to their personnel who occupy buildings that contain asbestos.

- 6. <u>Action</u>. Regional and installation commanders shall develop program guidance based on references (a) and (b) and this instruction.
- 7. Effective Date. This instruction is effective immediately.

R. T. CONWAY,

Vice Admiral / U.S

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ASBESTOS PROGRAM MANAGEMENT

1. <u>Introduction</u>. This Asbestos Management Plan consolidates all asbestos-related activities on Navy installations, to include all installation departments and tenant commands. It includes an Operation and Maintenance (O&M) Plan for management of in-place asbestos, an inventory of asbestos, and a record of abatement actions. The plan will be used in coordination with references (a) and (b) to identify asbestos material, maintain required documentation and ensure proper notification, collection and disposal.

2. Definitions

- a. <u>Asbestos-Containing Material (ACM)</u> Any material containing more than one percent asbestos as determined using polarized light microscopy according to the method specified in Appendix A, Subpart F, 40 C.F.R. part 763, section 1, Polarized Light Microscopy.
- b. Asbestos-Containing Waste Materials Mill tailings or any waste that contains commercial asbestos. This includes filters from control devices, friable asbestos waste material and bags or other packing contaminated with asbestos. As applied to demolition and renovation operations, this term also includes regulated asbestos-containing material waste and materials contaminated with asbestos including disposable equipment and clothing.
- c. Asbestos Program Manager (APM) A designated representative in the installation facility office who supervises all aspects of the asbestos management and control program. The APM duties can be performed as collateral duty.
- d. Glove Bag A polyethylene or polyvinyl chloride bag-like enclosure affixed around an asbestos-containing source so that the material may be removed while minimizing release of airborne fibers to the surrounding atmosphere.
- e. <u>High-Efficiency Particulate Air Filter (HEPA)</u> HEPA filters are rated to trap at least 99.97 percent of all particles 0.3 microns in diameter or larger.

- f. <u>Industrial Hygienist</u> A professional qualified by education, training and experience to anticipate, recognize, evaluate and develop controls for occupational health hazards.
- g. <u>Miscellaneous ACM</u> Interior building materials on structural components, structural members or fixtures, such as floor and ceiling tiles and does not include surfacing material or thermal insulation (reference 40 CFR 763.83).
- h. Regulated Asbestos-Containing Material (RACM) Friable asbestos material, Category I non-friable asbestos-containing material that has become friable. Category I non-friable asbestos-containing material that will be or has been subjected to sanding, grinding, cutting, or abrading, or Category II non-friable asbestos-containing material that has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of demolition or renovation operations.
- i. Resilient Floor Covering Asbestos-containing floor tile, including asphalt and vinyl floor tile, and sheet vinyl floor covering containing more than one percent asbestos as determined using polarized light microscopy according to the method specified in Appendix A, Subpart F, 40 C.F.R. part 763, section 1, Polarized Light Microscopy.
- j. <u>Surfacing Material</u> ACM which is sprayed or troweled onto surfaces. Examples include the underside of concrete slabs or decking, fire-proofing materials on structures and decorative plaster on ceilings or acoustic tiles.
- k. Thermal System Insulation (TSI) ACM applied to pipes, boilers, tanks and ducts to prevent heat loss or gain.
- 3. Classes of Asbestos Refer to regulated ACM guidance available via the Internet at the following web address: http://www.epa.gov/region4/air/asbestos/asbmatl.htm
- a. <u>Friable Asbestos</u> Any material that contains greater than one percent asbestos and can be crumbled, pulverized or reduced to powder by hand pressure. This may also include previously non-friable material which becomes broken or damaged

by mechanical force.

- b. <u>Category I</u> Any non-friable asbestos-containing packings, gaskets, resilient floor coverings and asphalt roofing products which contain more than one percent asbestos. These non-friable ACM materials when crushed or pulverized may become friable.
- c. <u>Category II</u> Any non-friable ACM, excluding Category I non-friable ACM, which contains more than one percent asbestos and cannot be crumbled, pulverized or reduced to powder by hand pressure.

4. Identification

- a. Building survey and material evaluation is the initial step in any asbestos related action. If asbestos is found, further measures to determine the condition and type of asbestos will be required.
- (1) Facility related construction material which includes:
 - (a) Pipe and boiler insulation;
 - (b) Roof tiles;
 - (c) External shingles;
 - (d) Vinyl floor tiles;
 - (e) Acoustic ceiling tiles, or coatings;
 - (f) Cementatious (transite) materials;
 - (q) Mastic;
 - (h) Textured wall surfaces:
 - (2) Fire retardant asbestos furniture which includes:
 - (a) Filing cabinets;

- (b) Safes;
- (3) Equipment and parts containing asbestos includes:
 - (a) Brake shoes:
 - (b) Gaskets;
 - (c) Clutch plates;
 - (d) Aircraft parts;
- b. A bulk sample of the suspected substance must be examined for asbestos by a qualified laboratory. Once the characteristics of the asbestos are compiled, a detailed assessment of necessary action can begin.
- c. Asbestos regulations require that an accredited inspector perform the asbestos survey. Persons conducting asbestos surveys must be trained in accordance with section 1708 and appendix 17-B of reference (a). The person responsible for determining the presence of asbestos must have a general knowledge of building construction and materials of construction, where and how asbestos was applied to buildings; a knowledge of how to sample for ACM; and a knowledge of the analytical methods and interpretation of data used for determining the presence of ACM.

5. Assessment

- a. Proper assessment of a facility containing asbestos is an important step in a successful management program. Occupancy requirements and actual asbestos characteristics are combined to make the necessary assessment. Because the possibility of exposure to asbestos can vary with personnel operations, both the number of assigned employees and the duration of occupancy are important in determining the required action.
- b. Material percentage, friability, accessibility and condition are elements within asbestos characteristics. The percentage of asbestos within a material has direct relationship to the possibility of exposure.

- c. If a substance is friable, the potential for airborne fibers is significantly higher and more dangerous than with a non-friable or encapsulated substance. The potential for fiber release can also be increased by the actual condition of damaged or deteriorated material. If an area containing asbestos material is accessible by personnel, the hazard is also increased.
- d. After the occupancy requirements and asbestos characteristics are evaluated, the facility is categorized as either requiring action such as abatement or requiring maintenance within the Operations and Maintenance (O&M) program. If a facility contains damaged friable pipe lagging in an exposed area, an appropriate abatement procedure shall be required. Upon assessment, if the asbestos material is in good condition, abatement would not be necessary. The facility containing currently safe material would be included in the operation and maintenance plan.

6. Operations and Maintenance Program

- a. The Operations and Maintenance (O&M) Program is designed to maintain a current inventory of all in-place asbestos. This will result in information that will assist in daily operations of occupant and facilities maintenance personnel. The operations and maintenance program will include:
- (1) An installation-wide inventory of facilities containing asbestos. This section will indicate potentially-hazardous facilities.
- (2) A notification program to inform occupants of asbestos location and awareness training, including how to avoid disturbing asbestos.
- (3) A periodic inspection and air monitoring schedule for detecting changes in condition of asbestos.
- (4) Asbestos schedules for removal identified in the O&M program until abatement is completed.
- (5) In the event of an unscheduled release episode, the APM and installation occupational safety and health (OSH) office will be contacted immediately. Depending on severity, the APM,

asbestos consultants, and abatement contractors will develop a strategy for conducting clean-up operations, per references (a) and (b).

b. The O&M program is intended to prevent the release of asbestos fibers by minimizing disturbance or damage to ACM during normal operations, and by monitoring the condition of ACM.

7. Abatement

- a. If the assessment findings determine that abatement action is necessary, a long-term control measure must be specified. Either containment or removal is the appropriate procedure. Potential hazard, accessibility, and abatement costs are factors addressed when selecting the most appropriate procedure. The two methods of containment include:
- (1) <u>Encapsulation</u> This method involves application of material which will envelop the fiber matrix. This provides minimal protection against contact disturbance. This procedure should <u>not</u> be considered when the surfaces are:
 - (a) In direct contact with occupants;
 - (b) Subject to water damage;
 - (c) Subject to structural vibrations; and/or
- (d) Insufficient strength to bear the weight of itself and the encapsulate.
- (2) Enclosure This method isolates the asbestos within a barrier to prohibit any fiber release into occupant work areas. This barrier, usually constructed of a framework and gypsum board, should not be accessible to occupants. This enclosure procedure should not be selected if:
- (a) Damage during routine activities is a possibility; and/or
 - (b) Condensation might build up;

8. Removal

- a. Removal is a long-term permanent solution by eliminating the contaminated source.
- b. Although removal is recommended, removal can be the most costly, complicated, and time-consuming technique. The elimination of exposure potential is the major advantage. Disadvantages include cost, feasibility and location of material.

9. Asbestos Abatement Personnel

- a. Abatement, including renovation and demolition, normally will be contracted through the installation facility office. An example would be a multi-level facility requiring complete asbestos removal.
- b. The APM, installation Environmental Department and Occupational Safety and Health (OSH) office will be notified prior to any and all asbestos related activities.

10. Record Keeping

- a. The installation facility department will prepare NEPA documentation prior to construction contract award for proposed asbestos related activities.
- b. APM documentation will include a facility inventory, assessment findings, abatement records and disposal documentation. The current status of asbestos will be updated and retained for future reference.
- c. The identification and assessment phases of asbestos activities will require the following records:
- (1) Survey and sampling will be conducted by qualified personnel. This section includes survey procedures, location floor plans, and sampling protocol.
 - (2) Facility descriptions include:
 - (a) Building construction specifics;

- (b) Suspect materials inventory;
- (c) Sampling summary; and
- (d) Inaccessible area determination;
- (3) Laboratory Data Sheets include:
 - (a) Date of samples taken;
 - (b) Sample description;
 - (c) Percent of asbestos;
 - (d) Type of asbestos;
- (4) Abatement Alternatives and Considerations. This section compiles the information within the assessment and recommends the most appropriate action. In most instances, the assessment will be performed and the data compiled by a qualified assessment contractor. It will be retained by the APM.
- d. Abatement Records. If the findings within the assessment require action, both Federal Occupational Safety and Health Administration (OSHA) and Environmental Protection Agency (EPA), have specific test requirements, the following documentation will be required:
 - (1) Contract specifications including:
- (a) Asbestos abatement contracts and abatement contract specifications will be prepared for appropriate personnel.
- $\underline{1}$. Abatement contracts and specifications will be reviewed by installation Environmental Department and OSH.
- $\underline{2}$. Abatement work executed by installation personnel or installation contractors requires that records required by regulation be compiled and retained.
- (b) The contract specifications require an asbestos hazard abatement plan which will include:

of compliance

- $\underline{1}$. Federal, state, and local regulation proof
- 2. Description of work
- 3. Equipment
 - a. Respiratory Protection
 - b. Protective Clothing
 - c. Change room
 - d. Eye protection
 - e. Exhaust systems
- 4. Work Procedures
 - a. General procedures
 - b. Asbestos control measure
 - c. Removal method (if applicable)
 - d. Clean-up
 - e. Monitoring
 - f. Removal and disposal
- (c) Specifications will also require each contractor to prepare a respirator protection program and include it within the initial submittal.
- (2) Abatement Notification. A pre-work notification may be required by local (city, county or state) environmental regulation and management authorities depending on the asbestos quantity involved, as measured in linear, square, or cubic feet. Typically contract specifications require the respective asbestos contractor to provide this notification to local environmental authorities. Abatement notification will be documented by the APM. In NAVFACENGCOM-related contract abatement, the construction representative will obtain a copy of

the notification and forward it to the APM for maintenance prior to the start of any removal work.

- (3) A record of asbestos related actions not requiring notification to local environmental authorities must also be maintained by the APM. If the sum of the non-reportable abated material results in more than the quantity for EPA notification, a report must be compiled. Where applicable, any asbestos removal project fees based upon the amount of asbestos being removed will be paid by the contractor at the time of notification to the local environmental authorities.
- (4) Disposal Records. Asbestos waste requires stringent handling, manifesting, and disposal procedures. During any abatement activity, certain disposal provisions will be followed. These provisions include:
- (a) Depositing all asbestos waste material at a predesignated staging site.
- (b) Discharge no visible emissions to the outside air from the transfer of the asbestos waste.
- (c) When waste material is transported off the site, maintain shipment records and manifests. Designated Navy personnel will be required to sign the manifest as the waste generator. These records will be maintained by the APM.