

EIELSON AIR FORCE BASE

Asbestos Management and Operations Plan



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This plan supersedes the Eielson AFB Asbestos Management and Operations Plan June 2012

PURPOSE

This plan has been developed in accordance with Air Force Instruction (AFI) 32-1052 to prevent or minimize exposure of occupants and workers on Eielson Air Force Base (EAFB) to asbestos-containing materials (ACM) and to ensure base compliance with all applicable federal, state, and local laws concerning asbestos management.

BACKGROUND

According to the U.S. Agency for Toxic Substances and Disease Registry, asbestos is the name given to a group of six different fibrous minerals (amosite, chrysotile, crocidolite, and the fibrous varieties of tremolite, actinolite, and anthophyllite) that occur naturally in the environment. Asbestos minerals have separable long fibers that are strong and flexible enough to be spun and woven and are heat resistant. Because of these characteristics, asbestos has been used for a wide range of manufactured goods, mostly in building materials.

Asbestos-Containing Building Material (ACBM) means surfacing ACM, thermal system insulation ACM, or miscellaneous ACM that is found in or on interior structural members or other parts of a building.

ACBM can be found in the following building materials:

acoustical plaster	decorative plaster	laboratory gloves
adhesives	ductwork flexible fabric	laboratory hoods/table tops
asphalt floor tile	connections	packing materials (for
base flashing	electric wiring insulation	wall/floor penetrations)
blown-in insulation	electrical cloth	pipe insulation (corrugated
boiler insulation	electrical panel partitions	air-cell block etc.)
breaching insulation	elevator brake shoes	roofing felt
caulking/putties	elevator equipment panels	roofing shingles
ceiling tiles and lay-in	fire blankets	spackling compounds
panels	fire curtains	spray-applied insulation
cement pipes	fire doors	taping compounds (thermal)
cement siding	fireproofing materials	textured paints/coatings
cement wallboard	flooring backing	thermal paper products
chalkboards	heating and electrical ducts	vinyl floor tile
construction mastics (i.e.,	high temperature gaskets	vinyl sheet flooring
floor or ceiling tile, carpet)	HVAC duct insulation	vinyl wall coverings
cooling towers	joint compounds	wallboard

There is concern for the health and safety of housing occupants and construction, renovation, and building maintenance personnel as a result of potential for exposure to elevated levels of airborne asbestos fibers. Intact and undisturbed asbestos-containing materials do not pose a health risk. However, ACM may become a health risk when fibers are released into the air as a result of damage, disturbance, or deterioration over time.

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Asbestos Work Review
Asbestos Informational Handout
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PART 1
PLAN SUMMARY

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1.0 PLAN SUMMARY

1.1 Policy

The U.S. Air Force (USAF) has directed Eielson AFB to develop an asbestos management and operations plan. EAFB must comply with all federal, state, and local laws concerning asbestos management. Adherence to this plan will assure compliance with these laws and reduce the exposure of occupants and workers on base to asbestos.

Health risks associated with exposure to asbestos are due to inhalation of asbestos fibers and include

- Asbestosis, also called white lung disease, causes scarring in the air sacs of the lungs.
- Lung cancer.
- Mesothelioma, which is a cancer of the lining of the chest or abdomen.

Asbestos exposure may increase the risk for cancers of the digestive system, including colon cancer.

Asbestosis and lung cancer are considered dose-related diseases (i.e., the more asbestos that is breathed, the more likely it is that illness will result). Mesothelioma, however, can result from very small exposure to asbestos. Asbestos workers' families have reported incidents of mesothelioma from exposure to the dust brought home on clothes of the worker.

It is not known whether ingesting asbestos causes cancer. Some people who had been exposed to asbestos fibers in their drinking water had higher-than-average death rates from cancer of the esophagus, stomach, and intestines. However, it isn't known whether this was caused by asbestos or by other factors.

All of the asbestos diseases have a latency period. The latency period is the gap between the time of exposure and the time sickness is felt. The latency period for asbestos diseases is between 10 and 40 years.

Not everyone exposed to asbestos gets an asbestos-induced disease. However, anyone exposed to asbestos has a higher risk of getting an asbestos-induced disease. All of the asbestos-induced diseases are difficult to treat. Most are impossible to cure. Preventing asbestos fibers from ever entering lungs is important. The only cure for most asbestos-induced diseases is to prevent them.

1.2 Primary Audience

This plan is directed primarily toward several sections within the 354th Civil Engineer Squadron – building custodians in facilities with ACM and the Bioenvironmental Engineering (BE) section of the 354th Medical Group.

1.3 Key Assumptions

Adequate manpower, equipment, enforcement, and other resources exist at the working level to ensure plan compliance.

1.4 Effective Date

Upon receipt of this final plan.

1.5 Purpose

The intent of the EAFB Asbestos Management and Operations Plan (AMOP) is to establish management and organizational responsibilities and measures, in compliance with AFI 32-1052, which ensures that no personnel in base facilities are exposed to hazardous levels of airborne asbestos fibers. This AMOP will address organizational roles and responsibilities, data management, program development, operational management, work procedures, and training. This reference guide is to be used by EAFB organizations and Air Force contracted personnel to ensure all asbestos management actions limit or minimize and prevent personnel exposure.

This reference guide is to be used by Eielson organizations and Air Force contracted personnel to ensure all actions resulting from asbestos management will limit and prevent personnel exposure by minimizing or preventing the release of asbestos fibers.

This plan is divided into two major sections: Management and Operations.

1.6 Objectives

This AMOP will consolidate different organizational guidelines and procedures into one comprehensive base plan. The objectives of the plan are to:

- Define management requirements, including specific organizational tasks, for meeting regulatory requirements and protecting the health of base occupants and workers.
- Establish a system of identification, evaluation, and prioritization of asbestos-related hazards.
- Outline a monitoring and maintenance program that provides a means of ensuring all ACM in base facilities are in good shape and repairs are completed in an expedient manner.
- Provide procedures for accurate and timely regulatory notifications.
- Establish a complete and functional ACM database for facilities and procedures to keep the database current.
- To ensure personnel are trained in the management and removal of ACM.
- To establish a safe and effective Monitoring and Maintenance Program.

1.7 Regulatory Overview

This environmental field has seen changes in the regulatory requirements over the past decades. Only currently promulgated regulations are referenced. As new regulations are promulgated, they will be incorporated into revisions of this plan. However, new regulations are effective immediately upon receipt and supersede any conflicting guidance in this plan. The following regulations are applicable to this document.

1.7.1 Occupational Safety and Health Administration (OSHA)

Title 29, Code of Federal Regulations, Part 1910, Section 1001 (29 CFR 1910.1001)	<u>General Industry Standard for Asbestos</u> Establishes a Permissible Exposure Limit (PEL) of 0.1 fibers per cubic centimeter of air (f/cc) as an 8-hour time-weighted average (TWA) and an Excursion Level of 1.0 f/cc as averaged over a sampling period of 30 minutes. Scope applies to all occupational exposures to asbestos not specified in the Construction Standard.
29 CFR 1910	Addresses asbestos exposure in the general industry, cancer, health labeling, occupational safety and health, protective equipment, respiratory protection, and signs and symbols.
29 CFR 1926	Addresses asbestos exposure in the construction industry, cancer, hazardous materials, health, labeling, occupational safety and health, protective equipment, respiratory protection, and signs and symbols.
29 CFR 1926.1101	<u>Construction Standard for Asbestos (Appendix 1)</u> Applies to individuals involved in construction, renovation, and demolition activities. Establishes the same PEL and Excursion Limit as outlined in 29 CFR 1910.1101 (General Industry Standard). Dictates engineering controls and personal protective equipment requirements for individuals involved with asbestos-related work and establishes requirements for medical surveillance and recordkeeping.

1.7.2 U.S. Environmental Protection Agency (EPA)

40 CFR 61, Subpart M	<u>National Emission Standard for Hazardous Air Pollutants (NESHAP) (Appendix 2)</u> Establishes standards for renovation or demolition activities which will impact a combined quantity of ACM in excess of 260 linear feet, 160 square feet (ft ²), or 35 cubic feet (ft ³). Standards address notification requirements, work practices, and waste disposal requirements.
40 CFR 763, Subpart G	<u>Worker Protection Rule</u> This regulation applies the OSHA standards to government employees who are not covered by the OSHA Asbestos Standards.

49 CFR 173.216	<u>Department of Transportation Regulations</u> This regulation establishes labeling, packaging, and transportation requirements for ACMs.
40 CFR 763, Subpart E	<u>Asbestos Hazard Emergency Response Act (AHERA)</u> Establishes standards for conducting asbestos assessment and abatement activities in schools. Requires schools to develop management plans and conduct periodic re-inspections of ACMs. Appendix C of the regulation (Asbestos Model Accreditation Plan) extends accreditation requirements for asbestos workers, contractor/supervisors, inspectors, and project designers to public and commercial buildings as well as schools.

1.7.3 U. S. Air Force

AFI 32-1052	<u>Air Force Facility Asbestos Management</u> Requires Air Force Bases to conduct facility asbestos surveys and develop an Asbestos Management Plan and an Asbestos Operating Plan.
AFI 48-145	Occupational and Environmental Health Program
AFI 90-821	Hazard Communication
AFI 91-203	Air Force Consolidated Occupational Safety Instruction
AFOOSH 48-137	Respiratory Protection Program
GRADE System	<u>Guidance for Rating and Assessing Damage and Exposure (Appendix 4)</u> Provides methods for conducting asbestos risk assessment and abatement prioritization.

1.7.4 State of Alaska

Title 18, Alaska Administrative Code, Chapter 60, Sections 200 & 450 (18 AAC 60.200 & 450)	Addresses State of Alaska solid waste permits requirements.
8 AAC 61.600-61.790	Asbestos Abatement Certifications

1.7.5 Other Applicable Regulatory References

ASHARA	Asbestos School Hazard Abatement Reauthorization Act; Asbestos training in public buildings
EPA Manual for Managing Asbestos in Place, 20T-2003, July 1990	

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PART 2
MANAGEMENT PLAN

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2.0 MANAGEMENT PLAN

2.1 Organizational Responsibilities

To have a successful Asbestos Management and Operations Plan, there must be an integrated program, which requires the participation of several organizations. The Base Civil Engineer (CES/CC) has the primary responsibility for developing and implementing an asbestos program. For public schools on base, the Fairbanks North Star Borough School District is the owner and is responsible for managing school facilities. In addition, other base organizations must assist the CES/CC in worker protection, sampling programs, quality control, and dissemination of accurate information needed to protect the health of all personnel living or working on Eielson AFB. Figure 2-1 presents the Asbestos Management and Operations Interaction Diagram.

2.1.1 Base Civil Engineer (CES/CC)

- Appoints an Asbestos Program Officer (APO) to oversee the implementation of the AMOP and to ensure environmental compliance.
- Ensures all Civil Engineer personnel are trained to perform the requirements set forth in the AMOP.
- Maintains the personnel exposure records of all asbestos abatement workers for 75 years.

2.1.2 Asbestos Program Officer (APO), Environmental Compliance (CEI/CEIE)

- Office of primary responsibility for asbestos compliance on base.
- Develops a base Asbestos Management and Operations Plan.
- Provides the oversight and technical assistance necessary for the implementation and periodic review and updates of this plan.
- Provides the necessary oversight to ensure regulatory compliance for all the activities related to asbestos management and operations.
- Provides the necessary technical assistance for the preparation of an informational handout.
- Checks quality assurance of survey data, abatement work, and contract specifications.

2.1.3 Risk Assessment Manager, Bioenvironmental Engineering (MDOS/SGOJ)

- Reviews random sampling results to verify Eielson AFB insulation shop personnel and their air sampling procedures adequately monitor and protect personnel on base.

- Conducts an initial employee respirator fit test, annual retesting, and develops a base respiratory protection program in accordance with all OSHA and AFOSH requirements.
- Reviews and interprets contractor's analytical results, and approves re-occupancy, if ambient air monitoring or clearance sampling are performed by a contractor.
- Provides training on air sampling equipment to insulation shop personnel when requested.

2.1.4 Housing Management (CEI/CEIH)

- Ensures that ACM is addressed appropriately prior to maintenance, abatement, renovation, and demolition activities.
- Performs inspections for damaged or deteriorating ACM during the pre-termination and termination inspection. If damaged or deteriorating material is observed, quality assurance personnel assigned to the housing maintenance contract will request the MFH maintenance contractor take appropriate action.
- Distributes an asbestos informational handout for all newly arriving personnel scheduled to be housed in quarters that contain potentially friable ACM.
- Provide the APO information on all asbestos work that includes building number, amount of asbestos removed, date of removal, and the location in the building where the material was removed from.

2.1.5 Real Property (CEI/CEIAP)

- Coordinates AF Form 300, Facility Disposal Report, through the BE and APO prior to maintenance, abatement, renovation, or demolition activities.
- Real Property office is responsible for requesting an asbestos survey of any facility identified for maintenance, abatement, renovation, demolition, or disposal.

2.1.6 Engineering Flight (CEN/CENP)

- Responsible for requesting an asbestos survey of any facility identified for maintenance, abatement, renovation, demolition, or disposal.
- Requires all contractors to notify the EPA in accordance with 40 CFR 61.145 and the Alaska Department of Labor in accordance with 8 AAC 61.620 prior to beginning work on demolition and/or renovation projects involving asbestos.
- The EPA requires demolition notification for all buildings that are to be destroyed regardless of the amount of asbestos contained in the building (this requirement includes buildings that have never contained asbestos).
- Requires all contractors to notify the APO in writing of all asbestos abatement in accordance with 40 CFR 61 prior to beginning work.

- Routes all asbestos abatement plans submitted by contractors for on-base work, including Simplified Acquisition Base Engineering Requirements (SABER) projects to the APO.
- Routes all applicable work orders Air Force (AF) Form 332 or Department of Defense (DD) Form 1391 through the APO, BE, and CEI/CEIE for an asbestos assessment prior to maintenance, abatement, renovation, or demolition work.
- Obtains copies of EPA and state notifications and abatement notification submittals from the contractor and routes to the APO and CEOII.
- Checks quality assurance of survey data, abatement work, and contract specifications.

2.1.7 *GeoBase (CEN/CENME)*

- Creates working drawings per Insulation Shop instructions and reproduces blueprints of the location, type, and quantity of ACM present in facilities based upon the Insulation Shop's Base Survey.
- Updates working drawings of each facility asbestos survey by the Insulation Shop and after a major asbestos abatement job has been completed in an individual facility.

2.1.8 *Contracts Flight (CEO/CEOES)*

- Ensures a local laboratory contract is obtained to analyze asbestos samples and coordinates with APO and AF to have laboratory approved.
- Coordinates with the APO manager and BE prior to finalizing any asbestos contract specifications/plans.
- Requires all contractors to notify the EPA in accordance with 40 CFR 61.145 and the Alaska Department of Labor in accordance with 8 AAC 61.620 prior to beginning work on demolition and/or renovation projects involving asbestos.
 - The EPA requires demolition notification for all buildings that are to be destroyed regardless of the amount of asbestos contained in the building (this requirement includes buildings that have never contained asbestos).
- Requires all contractors to notify the APO in writing of all asbestos abatement in accordance with 40 CFR 61 prior to beginning work.
- Obtains copies of the abatement notification submittals from the contractor and routes to the APO.
- Ensures asbestos abatement costs are designated as a separate contractual line item.
- Coordinates BE review of contractor's analytical results and enforces BE approval/disapproval of re-occupancy, after ambient air monitoring or clearance sampling are performed by a contractor.
- Ensures the APO is given facility specific information when asbestos is removed from a facility so that the asbestos register can be updated. Information

includes amount and type of asbestos removed and where in the facility it was removed from.

- Checks quality assurance of survey data, abatement work, and contract specifications.

2.1.9 Work Order Management (CEO/CEOE)

- Routes all applicable work orders Air Force (AF) Form 332 or Department of Defense (DD) Form 1391 through the APO, BE, and CEI/CEIE for an asbestos assessment prior to assigning maintenance, abatement, renovation, or demolition work.

2.1.10 Insulation Shop (CEO/CEOII)

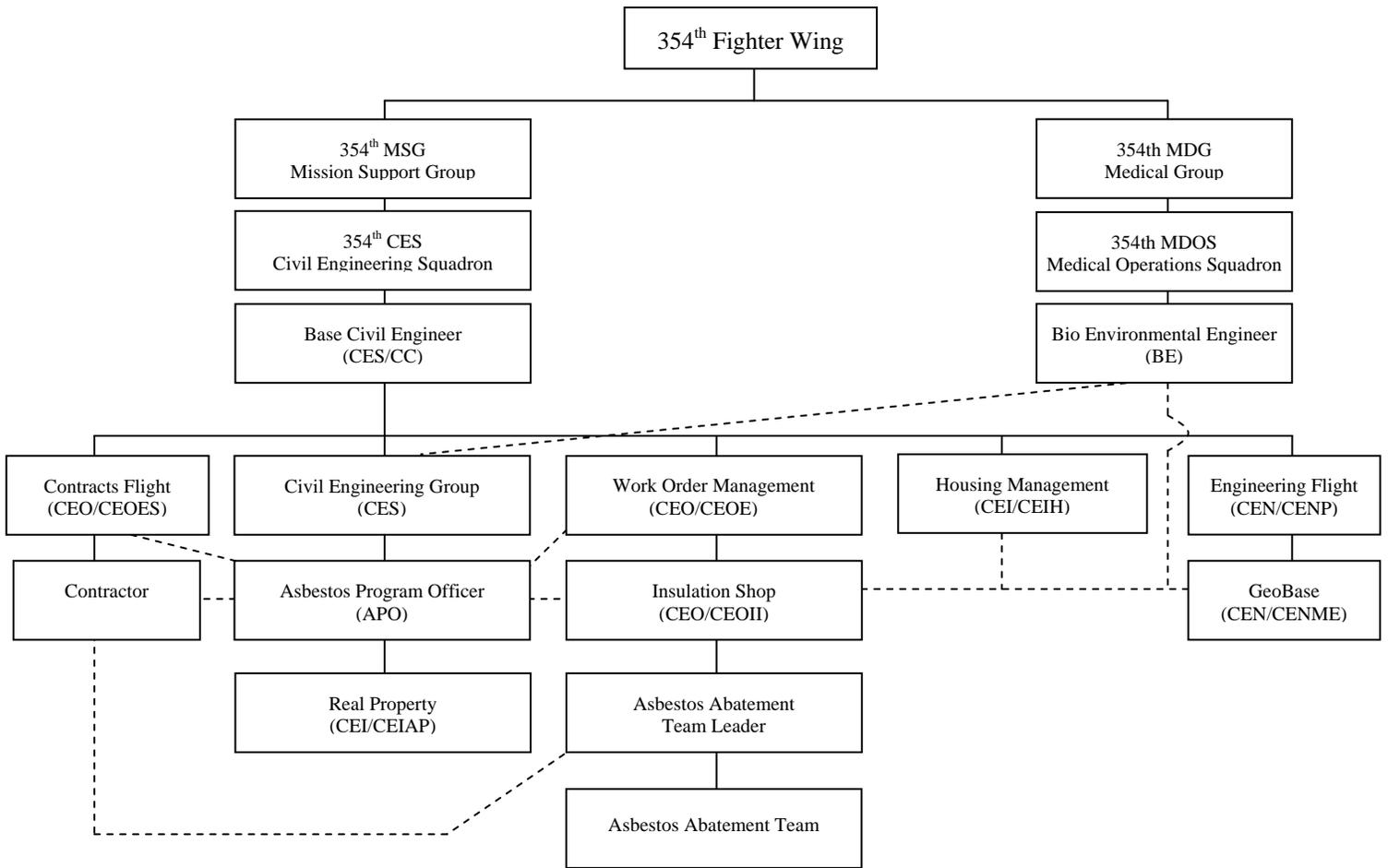
- Ensures a facility contains no ACM prior to demolition.
- Maintains an Asbestos Monitoring and Maintenance Program and coordinating air sampling with APO.
- As primary certification officer, ensures that the job sites affected by the job orders have been surveyed (for ACM) and the necessary control measures for effectively managing ACM have been implemented prior to commencing non-ACM work.
- Ensures all ACM is properly packaged, labeled, and transported when disposed of in the permitted on-base asbestos landfill.
- Ensures the building custodian is informed of all of the ACM locations within their specific building.
- Responds to reports of suspected damage or deteriorating ACM
- Examines friable ACM and determines if abatement action is required, as requested. Determines if health related precautions, including monitoring, removal of personnel, and protective control measures, are required to protect personnel until recommended actions are completed.
- Formulates the protocol for the Base Survey, then generates and maintains individual facility folders.
- Ensures a biannual Base Survey review is completed. This survey will include bulk sampling and baseline air sampling. Responsible for updating the inventory of each facility for ACM (except for roofing material) and quantifying it according to its type, quantity, location, and condition.
- Inspects and repairs, performs abatement, encapsulation, and glove bag operations on ACM, as directed.
- Ensures all shop employees maintain their state and federal certification.
- Review results from the contracted local laboratory analyzing asbestos samples.
- Maintains data on all contracted asbestos abatement work, which includes survey information, amount removed and its location, and a copy of each EPA Notification of Demolition and Renovation submitted.

- Maintains documentation of asbestos materials removed from buildings to include building number, date removed, type of materials, quantity, and location from where materials were removed.
- Maintains an Asbestos Log Book.
- Submits in-house abatement project information to the APO for notification submittal.
- Reviews all asbestos removal or abatement contracts to ensure proper requirements are identified and to ensure the protection of Air Force personnel.
- Ensures the presence of a competent person for all asbestos management activities, including asbestos surveys and asbestos abatement.
- Responds to emergency calls and initiates actions in accordance with Section 8.2.
- Reviews all asbestos abatement plans submitted by contractors for on-base work, including Simplified Acquisition Base Engineering Requirements (SABER) projects.
- Coordinates air sampling requirements with APO.
- Ensures employees receive an annual respirator fit test and training, as well as periodic retesting, and develops a shop-specific respiratory protection program in accordance with all OSHA and AFOSH requirements.
- Disposal records will be maintained by the Insulation Shop in the facility folder. Information collected will include type and quantity of material, work order or contract number, and disposal date.
- Summarizes the total man-hours and supplies used to do in-house abatement and survey work.
- Maintains and updates the asbestos database.
- Real Property office is responsible for coordinating the Facility Disposal Report (AF Form 300) through APO to indicate the presence or absence of asbestos.

2.1.11 General Contractor (GC)

- Responsible for conducting demolition survey and identifying ACM prior to conducting maintenance, abatement, renovation, or demolition activities.
- Responsible for making proper EPA and State notifications and providing copies to APO and CEOII.
 - The EPA requires demolition notification for all buildings that are to be destroyed regardless of the amount of asbestos contained in the building (this requirement includes buildings that have never contained asbestos).

Figure 2-1. Asbestos Management and Operations Interaction Diagram



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3.0 MEDICAL SURVEILLANCE

3.1 Medical Concerns

Over the past several decades, there has been a growing awareness and consensus within the medical community of the adverse health effects associated with exposure to airborne asbestos.

Asbestos becomes a health hazard when fibers become airborne and are inhaled. Because of the small size of asbestos fibers, they can avoid the body's defense mechanisms and become trapped in the lungs.

There are three main diseases associated with asbestos exposure, all of which have latency periods of 10 to 40 years. Asbestosis is the most common asbestos-related disease and is prevalent among workers with long-term occupational exposures to large doses of asbestos. This disease is characterized by a fibrotic scarring of the lung tissue, which results in decreased lung capacity.

The second most common asbestos-related disease is lung cancer. As with asbestosis, lung cancer is also linked with high-dose asbestos exposures, and it has been determined that cigarette smoking and asbestos exposure contribute synergistically toward causing lung cancer.

The least common but most fatal asbestos-related disease is mesothelioma, which is a cancer of the membrane that lines the lungs or abdominal cavity. Mesothelioma differs from asbestosis and lung cancer in that there does not appear to be the same dose-response relationship. It is primarily this disease that has led the EPA to conclude that there is no safe level of asbestos exposure.

3.2 Personnel Requiring Medical Surveillance

The medical surveillance requirements apply to personnel covered by any of the following categories:

- Personnel who have worked for a combined total of 30 days or more per year engaged in removal of ACM, or repair and maintenance operations where ACM is likely to be disturbed.
- Personnel exposed at or above the PEL (0.1 f/cc) or the Excursion Limit (1.0 f/cc), as determined by the BE.
- Employees who wear negative-pressure respirators

3.3 Medical Examinations

The medical examinations will be administered by the Flight Surgeon's Office (FSO) in accordance with 29 CFR 1926.1101 (m) and AFOSH standards.

Medical examinations shall be scheduled and administered by the FSO. Additionally, work histories, medical histories, and patient questionnaires shall be initiated at the time of the first physical examination and updated at subsequent annual physical examination by FSO. Work histories, medical histories, and patient questionnaires referred to above are those specified by DoDI 6065.05-M, *Occupational Medical Examinations and Surveillance Manual*.

Flight surgeons will review the results of the physical examinations and make determinations as to whether the personnel are to become medically certified. The FSO will ensure that the APO and AOO are notified in writing as to whether workers have been medically certified to wear a respirator during asbestos abatement work.

3.4 Medical Surveillance Records

To assist the APO in the tracking of medical surveillance activities, ASIMS software shall be used to record the dates of medical examinations and the medical certification of personnel for work requiring respirator use.

In addition, written documentation shall be maintained of the dates when personnel received respiratory protection training, respirator fit tests, physical examinations, and the examining physician’s certification as to whether personnel are able to work while wearing respirators.

Table 3-1 Asbestos Training Requirements Eielson AFB Asbestos Operating Plan							
Personnel	Worker	Supervisor	Inspector	Mgmt. Planner	Project Designer	Awareness	Air Monitoring
Wing Commander						X	
CES/CC						X	
Public Affairs Office						X	
Base Safety Office						X	
Environmental Legal Adviser						X	
Bioenvironmental Engineering			X			X	
APO		X	X	X	X	X	X
Insulation Shop		X	X	X	X		X
Project Planners					X		
Project Design Engineers & QAR			X		X		
CES/CC Shops						X	
Contract Supervisors		X					
AIRT	X	X	X				

Worker: 4-day course

Supervisor: 5-day training course

Inspector: 3-day course

Management Planner: 2-day course

Designer: 3-day course

Awareness training: 2- to 8-hour course

**Table 3-2
Respiratory Protection for Asbestos Fibers
Eielson AFB Asbestos Operating Plan**

	Required Respirator
Not in excess of 1 f/cc (10 x PEL), or otherwise as required independent of exposure pursuant to (h)(2)(iv)	Half-mask air-purifying respirator, other than a disposable respirator equipped with high-efficiency filters.
Not in excess of 5 f/cc (50 x PEL)	Full facepiece air-purifying respirator equipped with high-efficiency filters.
Not in excess of 5 f/cc (100 x PEL)	Any powered air-purifying respirator, equipped with high-efficiency filters or any supplied-air respirator operated in continuous fiber mode.
Not in excess of 5 f/cc (1000 x PEL)	Full face-piece supplied-air respirator operated to pressure demand mode.
Greater than 100 f/cc or unknown concentration	Full facepiece supplied-air respirator operated in pressure demand mode, equipped with an auxiliary positive pressure self-contained breathing apparatus.
<p>Notes:</p> <ul style="list-style-type: none"> a. Respirators assigned for high environmental concentrations may be used at lower concentrations, or when required respirator use is independent of concentration. b. A high-efficiency filter means a filter that is at least 99.97 percent efficient against mono-dispersed particles of 0.3 micrometers in diameter or larger. 	

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4.0 ASBESTOS DATABASE

4.1 Asbestos Surveys

4.1.1 Base Survey

Asbestos assessment of the facilities is an ongoing effort. Since the mid-1980s, asbestos assessment of the facilities scheduled for renovation, repair, abatement, and demolition has been conducted on an as-needed basis. An asbestos survey is used to gather information and establish an exposure assessment. This survey includes a thorough visual inspection of ACM. The survey is updated biannually, then is used to identify and prioritize all corrective actions. Any damaged friable ACM posing a threat to human health is immediately repaired/removed.

4.1.2 Emergency Survey

Emergency surveys are conducted as needed. This investigation is normally initiated by the occupant or building manager and completed by the Insulation Shop. Immediate repairs or removal will be performed if the material is ACM.

4.1.3 Destructive Survey

A destructive survey precedes all construction, demolition, or renovation actions in buildings suspected or shown to have ACM present during the initial base survey. Methods utilized to accomplish this include the review of as-built drawings, interviewing employees knowledgeable about the facility, and researching construction references to determine possible ACM locations. After conducting employee interviews and a thorough document search, destructive sampling would occur if needed. Trained personnel will do the sampling. Personnel will perform this task wearing appropriate personal protective equipment and respiratory protection.

4.1.4 Project Survey

Any construction project or work order that is processed requires an asbestos survey prior to work unless noted on AF Form 332 by CES/CEOII as not required. The Insulation Shop will research individual facility folders to determine whether ACM is present in the construction area.

4.2 Managing Asbestos in Place

Eielson AFB emphasizes the importance of managing asbestos in place in accordance with the EPA's guidance manual, 20T-2003, July 1990. To accomplish this, the Insulation Shop has implemented a recurring inspection and maintenance program. This program requires all buildings to be inspected every 6 months. Any damaged, friable ACM is repaired or removed immediately before it can become airborne and present a health hazard. The information gathered from these routine inspections is then used to update the asbestos survey and register. In addition, building custodians are trained by Insulation Shop personnel about basic asbestos identification and maintenance. Upon discovery of

exposed friable ACM, maintenance personnel will notify Customer Service at 377-2100. Insulation Shop will perform all maintenance, abatement, renovation or demolition actions as required.

Building custodians are trained initially and annually on shop-specific maintenance and operations procedures. They will ensure shop specific instructions are developed and updated to protect building occupants and will incorporate asbestos hazardous communication in their shop instructions.

4.3 Asbestos Facility Files

The purpose of the Asbestos Facility Files is to establish and maintain a computerized database of industrial facilities on base and to establish a priority listing of all asbestos projects identified in the initial base survey.

Facility folders will be maintained by the Insulation Shop and at a minimum will include the following information:

- Building number and usage code (e.g., Family Housing Unit)
- Quantity (linear and square footage)
- Asbestos type by location
- Condition of the ACM
- Date of last survey
- Date of the last repair, removal, or maintenance monitoring
- Current work orders (AF Form 332 or DD Form 1391) and start date of major maintenance, abatement, renovation or demolition projects

5.0 MANAGEMENT SUPPORT

5.1 Application

Federal (EPA) regulations regarding notification and emissions controls on asbestos-containing structures apply to facilities that are renovating or demolishing structures containing the following, or stripping or removing:

- At least 80 linear meters (260 linear feet) of Regulated ACM (RACM) on pipes
- At least 15 square meters (m²) (160 ft²) of RACM on other components
- At least 1 cubic meter (m³) (35 ft³) off-facility components

If the amount of asbestos removed is less than these amounts, or if the facility is being demolished under government order because it is structurally unsound and in danger of imminent collapse, only some of the notification requirements apply. While a single project may not exceed these limits, its addition to other base-wide activities may still result in notification requirements. Therefore, contractors must provide EPA notification on all RACM projects.

5.2 Planning

One-year Plan: This work schedule reflects near-term work needed to support in-house and contracted work in affected facilities. The APO will review, update, and maintain this schedule as required.

5.3 Monitoring, Surveillance, and Quality Assurance

The competent person has primary responsibility for environmental compliance at all work sites. The CEN/CENP, CEOES and CEI/CEIE are responsible for quality assurance compliance.

Through coordination by the APO or CEOII, will conduct work site air monitoring for compliance, as directed by AFI 32-1052

5.4 Notification Procedures

The EPA requires renovation notification be submitted for all RACM removal projects in accordance with 40 CFR 61.146 ten working days in advance of the project beginning, from Contract Management for contracted work and from the APO for in-house work.

The EPA requires demolition notification for all buildings that are to be destroyed regardless of the amount of asbestos contained in the building (this requirement includes buildings that have never contained asbestos). These notifications are required from the contractor for contracted work and from APO for in-house work. This notification must be submitted in accordance with 40 CFR 61.145 and 61.146.

Information needed for regulatory notification includes:

- Facility number
- Location of the work within the facility
- Total square footage
- Building age
- Current building use
- Disposal location
- Estimated start and completion date
- Procedural description used to comply with regulatory requirements

Notifications of Demolition and Renovation will be sent to the appropriate regulatory agency.

The EPA must be notified 45 days prior to excavating or disturbing asbestos-containing waste material that has been disposed of in the EAFB Asbestos Landfill.

5.4.1 Copies of Notification Will Be Provided to the APO.

Notification Procedures for Contracted Projects:

For projects to be completed by outside contractors, compliance with asbestos laws and regulations is the responsibility of the contractor. It will be the responsibility of the contractor to use certified inspectors to ascertain the presence or absence of ACM that they may encounter in the areas where they will be working. The contractor will work with the APO to obtain the necessary data. The contractor notification form (Figure 5-1) should be used to inform all contractors of potential asbestos hazards they may encounter at EAFB. Contractors are responsible for providing notification and project information directly to the state and CEOII. They are also responsible for the occupational health protection of their personnel under 29 CFR 1926 and for complete control of asbestos fibers during removal.

Figure 5-1. Contractor Notification Form

Contract Name: _____ Date: _____

Company Name: _____

Company Representative: _____

Contracting Officer: _____

Description of work to be accomplished (To be completed by contracting officer or construction management personnel.):

Description of Potentially Hazardous Asbestos Material (to be completed by APO):

Summary of Notification and Recommendations (to be completed by APO):

By signing this form, The company representative acknowledges that the notification summarized herein as been received and will be conveyed to the company's employees working on Eielson Air Force Base

Contracting Officer's Signature: _____

Company Representative: _____

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PART 3
OPERATIONS PLAN

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6.0 OPERATIONS PLAN

6.1 ACM Monitoring and Maintenance

This program is an ongoing management process for ACM in every facility on base. EAFB is committed to reduce all non-occupational asbestos exposures and manage repair and replacement projects in a manner which ensures occupational exposures below the permissible exposure limit as defined by OSHA in 29 CFR 1926.1101. This will be achieved by cleaning up asbestos fibers released, avoiding ACM damage in the future, and monitoring the condition of existing ACM. The program will continue until all ACM is removed or the facility is demolished.

6.2 ACM Work Structure

- Establish and maintain a program to ensure the day-to-day management of facilities is carried out in a manner to eliminate asbestos fiber release while ensuring proper controls and procedures are followed.
- Perform periodic inspections. All facilities containing ACM are inspected biannually by the Insulation Shop with the exception of the family housing units that are inspected through the Base Housing Office when vacated. The Base Housing Office will report any damaged or deteriorating asbestos to the Base Housing Maintenance Contractor for action. The master ACM inventory will be reviewed and updated during the biannual inspection if changes are noted. Facility inspections are conducted on all ACM for damage or deterioration.
- Receive work, job order, and emergency repair requests. Projects that are generated on base must submit a work order, AF Form 332 or DD Form 1391, which is coordinated through the Insulation Shop. The Insulation Shop checks the Asbestos facility files to verify whether the project area indicated on the work order contains asbestos. If an asbestos survey has not been conducted in the area indicated on the work order, a survey will be scheduled and completed before the project may proceed. This work order process includes self-help projects. All requests follow the attached Asbestos Work Review Flowchart diagram.
- Perform health assessments. Exposure risks are determined by the competent person with assistance of BE, using the assessment scoring system guided by the Risk Assessment Code (RAC) process detailed in AFI 91-202 , if requested. Prioritizing work is dependent upon these health risk calculations, condition, type, and location of the ACM.
- Abate, as soon as possible, the ACM that poses the greatest threat to human health.
- Identify future requirements. Remove existing ACM from facilities at opportune times before minor construction or repairs.

6.3 Action Options

6.3.1 Maintenance

Key participants who aggressively identify ACM are the facility managers and maintenance personnel. ACM properly encapsulated is monitored biannually until it is removed. Once damaged or deteriorating ACM is identified, it is repaired or evaluated for removal. The evaluation may be done by using the exposure assessment scoring system RAC process. Suspected damaged or deteriorating ACM is to be reported to Customer Service at 377-2100.

6.3.2 ACM Repair

Upon discovery, all exposed friable asbestos is to be repaired by encapsulation or removal. All damage discovered during routine surveys is to be repaired prior to surveying another facility. The repaired asbestos will continue to be monitored under the maintenance program.

- The Insulation Shop notifies the APO if, in the judgment of the competent person, there is a question of whether to repair or remove the ACM.
- All repairs occur only after proper procedures have isolated the immediate work area from possible occupant exposure.
- As a requirement for asbestos removal, demolition, and renovation operations, the employer, and EAFB, will ensure that employees working within the secured enclosure wear protective clothing and respirators as required by 29 CFR. EAFB will provide personal protective equipment and respiratory protection in accordance with 29 CFR and applicable AFOSH Standards, and all workers performing ACM repairs and cleanup will wear appropriate respiratory and personal protective equipment according to the task at hand. BE defines required personal protective equipment and respiratory protection for government workers on EAFB.
- **Cleaning Requirements:** The Insulation Shop is responsible for all in-house cleaning actions. Only High Efficiency Particulate Air (HEPA) vacuums with high-efficiency particulate filters will be used to clean carpets, furniture, curtains, books, or other contaminated surfaces. All non-carpeted floors will be wet mopped. Shelves, windows, and doorsills will be wiped with a wet cloth. All vacuum bags, filters, mop heads, and cleaning cloths will be disposed of in accordance with 40 CFR 61.150.
- Work will be documented in the Insulation Shop's Asbestos logbook and the facility folders. Information will include daily activity reports and personnel exposure records.
- Where feasible, clearance air monitoring will be conducted at all abatement sites, other than small-scale, short-duration projects. If the competent person believes the work site is unable to be accurately sampled using aggressive methods, then the BE must approve a waiver to conduct non-aggressive clearance sampling.

- All ACM debris is to be labeled and double bagged in leak-proof 6-mil rated plastic and disposed of in accordance with 40 CFR 61.150 and 61.154.

6.3.3 ACM Removal

ACM that may release fibers to the air, or which cannot be reliably repaired or isolated, is to be removed. All health-related removals are based upon direct evaluation by the BE.

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7.0 ACM ABATEMENT

7.1 Personnel Training

An employee information and training program has been established in accordance with 29 CFR 1926.1101 (k)(9)(v & vi) and 40 CFR 763.92 (a)(i), and includes the following:

- Annual asbestos awareness training will be conducted for all craftsmen and building custodians. This training will include basic asbestos identification, how to prevent ACM from becoming friable, and the maintenance of walls and ceilings that contain ACM. All Insulation Shop asbestos workers will be certified by the State of Alaska as asbestos abatement workers/supervisors and will maintain their certification. All Insulation Shop workers are trained as asbestos project inspectors and project designers.
- The Insulation Shop will develop a respiratory protection program, which will be reviewed and approved by BE. The respiratory protection program will explain to the employees that the proper uses, fitting instructions, and protection limitations of respirators. BE conducts individual respirator fit testing annually on all asbestos personnel.
- The Insulation Shop Foreman will ensure that the personnel involved in the maintenance, and abatement of ACM be properly trained and licensed. The required training includes annual refreshers and physicals. The Insulation Shop Foreman will maintain copies of the necessary training and licensing documentation.
- Additional training to be provided to Insulation Shop asbestos workers includes:
 - Air sampling equipment and calibration training.
 - Shop equipment training.
 - Respirator training.
 - Lockout/tagout training.
 - Confined space training.
 - Electrical safety training.
 - Ladder safety training.
 - Slip/trip/fall hazard training.
 - Occupational Safety and Health training.
 - Federal Hazard Communication training program.

7.2 Equipment and Supply Requirements

A comprehensive list of equipment and supplies used by the Insulation Shop listed in the Customer Authorization/Customer Listing supply account (CA/CRL) is maintained in the Insulation Shop. Shop tools may be purchased from Base Supply or through Civil Engineering Materials Acquisition System (CEMAS).

7.3 Worker Manuals and Shop Procedures

In addition to this AMOP, manufacturers' guidance and operating instructions for Insulation Shop tools and supplies are available for worker review and use and maintained in the Insulation Shop along with the following documents: AFI 32-1052; AFOSH 90-821; Insulation Shop Operating Instructions (OI) 161-1; 161-2; 42 USC 7412; EPA Manual 20T-2003 ("Managing Asbestos In Place"); and 29 CFR 1910.1001 and 1926.1101.

7.4 Cleaning

The Insulation Shop will respond to reports of damaged or deteriorating ACM and clean up all visible dust by removing the materials in accordance with Section 6.3.2 of this plan and ensure that it is disposed of properly. Cleanup is considered complete for small-scale, short-duration repairs when visible dust is no longer present and when aggressive clearance air samples (if required) are no more than ambient air or no more than 0.01 f/cc. To be considered clean, major abatement projects must have air clearance samples no more than background ambient air or no more than 0.01 f/cc.

7.5 Documentation

All asbestos-related work can be tracked by searching the EPA Notifications of Demolition and Renovation, the Asbestos Log Book, lab sample results, personnel exposure records, and through the facility folders generated from the base survey. The CEOII and BE maintain an exposure file on all past and present workers. Asbestos-related documents will be retained in accordance with AFD-080429-051, Table 48 – 05, Rule 01.00 which instructs that employee exposure records as defined by 29 CFR 1910.1020, Access to Employee Exposure and Medical Records or other applicable federal, state or local occupational safety and health regulations be held for 75 years.

- Facility folders and copies of the sample results are initially maintained by the Insulation Shop for a period of 2 years and then maintained in the base archive files for 3 more years. They are then transferred off base to be archived at the Federal Records Center in Seattle, WA.
- The CES maintains all personnel exposure results.
- The Asbestos Log Book contains names of workers, job or work order number, building number, equipment used, man-hours, total square ft/linear ft removed, and date of completion. The US Air Force will maintain such documentation for a period of 75 years, after an employee leaves the job or changes the trade.

7.6 Yearly Budget Estimates

The Insulation Shop at EAFB has a permanent dedicated work force funded through their own operations and maintenance (O&M) budget. The budget for the cost center is handled by CEI/CEIAR. The analytical and training support for the Insulation Shop is funded by the O&M budget.

8.0 ACM REMOVAL

8.1 Procedures

Procedures to be followed during ACM abatement projects are specified in 40 CFR 61.145, 61.152, 29 CFR 1910.1001, and 29 CFR 1926.1101. Wherever necessary, a negative pressure enclosure will be established prior to beginning removal, demolition, and renovation projects.

- Asbestos abatement areas are isolated from non-contaminated areas by the use of physical barriers and controlling the ventilation system. The isolation walls are constructed of at least two layers of 4-mil rated plastic. The floors are constructed of at least two layers of 6-mil rated plastic. When a HEPA ventilation system is used, there must be enough air handlers in the work area to totally exchange the air every 15 minutes and suction pressure must be maintained at no less than a minus 0.02 inch of water column to prevent migration of fibers outside the containment area.
- The competent person will ensure the enclosure integrity and control access to the entrance and exit.
- The competent person inspects and maintains all engineering controls.
- All employees will wear the appropriate respirator, protective clothing, and use all the engineering controls and decontamination procedures they were trained in for each type of abatement project. When clothing rips or tears while in an abatement enclosure, it will be immediately repaired or replaced.
- Where feasible, clearance air and personnel monitoring will be conducted on all asbestos abatement projects. Aggressive clearance sampling is to be used when feasible. All required monitoring would be supervised by the competent person. All air monitoring results for in-house projects are to be given to CES for filing purposes and BE for review, and copies of all air monitoring results from in-house projects requiring regulatory notification will be forwarded to the Insulation Shop for incorporation into the project folder. A copy of the personal sample results will be made available to the individual who was air sampled.
- Engineering and work practices used on major abatement projects to reduce asbestos exposure include local exhaust ventilation and vacuums equipped with HEPA filters, enclosures, wetting agents, wet removal methods during cutting, handling, removal, cleanup, and prompt disposal of ACM waste in labeled leak-proof containers. Small-scale, short-duration projects use as many of the above mentioned controls as needed to reduce employee exposure to the lowest level feasibly attainable.
- At no time during the removal process will abrasive machinery be used without having the appropriate dust controls on it.
- No smoking, drinking, or eating is allowed in the contaminated area. Personnel must complete full decontamination prior to engaging in any of these activities.
- Friable asbestos enclosures will have a dirty shower and clean room adjacent to the work area. All employees will remove gross contamination from their protective clothing prior to entering the dirty room. Employees will remove their protective clothing and dispose of it in the labeled bag or container. The employee wears his respirator at all times while

in the dirty room. The enclosure will have a shower room between the dirty and clean room. All employees will shower prior to removing and cleaning their respirators. A labeled bag or container is used to dispose of the respirator filters. The enclosure will have a clean room, which will be used by the employees to change into street clothes.

- Warning signs are to be posted at the work site.

8.2 Emergency Actions

Fiber release episodes are events where visible emissions or gross contamination is present and may be due to unforeseen accidental or purposeful damage. Guidelines for corrective measures are listed in 40 CFR 763.90. Corrective procedures include:

- Immediate restriction of access.
- Isolating the area by posting warning signs as appropriate to protect human health and the environment.
- Shutting down or modifying the air handling equipment to the area.
- Wetting debris with amended water.
- Enclosing or encapsulating the affected area as appropriate
- Collecting loose or fallen asbestos-containing debris in marked 6-mil disposal bags.
- Cleaning the area with wet cleaning or HEPA vacuuming.
- Instituting protective measures to prevent further damage to the affected area.
- Repairing the damaged area as soon as possible.
- Disposing of contaminated materials.
- Verbal removal notification to the EPA, if required.
- Daily activity reports and sample reports will be filed with the Insulation Shop.
- Contact CEI/CEIE Air Manager at (907) 377-3313
- Ensure a competent person inspect test the affected area to ensure the mitigation and repair activity was properly completed. This action shall include taking air samples from the affected area to a properly accredited laboratory for analysis. The BE will review the lab results to ensure the mitigation and repair activity was properly completed.

8.3 ACM Disposal

The enclosures are to be dismantled inward, one layer at a time, double bagged, and labeled as asbestos waste for disposal after clearance samples have proven the area contains less than 0.01 f/cc.

All waste containers are to be labeled in accordance with the requirements of 29 CFR 1910.1200 (f).

All labeled, double-bagged waste containers are to be disposed of in the Alaska Department of Environmental Conservation (ADEC)-permitted asbestos, remediated soils, and coal ash landfill (Permit SWZA019-12) at EAFB in accordance with ADEC permit requirements. The vehicle used to

transport ACM waste will be covered. Workers will wear respirators and exercise great care during loading and unloading ACM for disposal to ensure no visible emissions are created.

NOTE: Liquids/sludge generated from mastic or adhesive removal will be containerized and turned in to the Civil Engineering (CE) Hazwaste Facility, 377-1668, for proper disposal through the Defense Reutilization and Marketing Office (DRMO).

Disposal records will be maintained by the Insulation Shop in the facility folder. Information collected will include type and quantity of material, work order or contract number, and disposal date.

8.4 Building Disposal

Air Force facilities in the process of being declared excess property shall be inspected by the Insulation Shop, at the request of the Real Property Office, prior to disposal.

The Real Property Office is responsible for coordinating the Facility Disposal Report (AF Form 300) through APO to indicate the presence or absence of asbestos.

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ACRONYMS & ABBREVIATIONS

AAC	Alaska Administrative Code
ACM	Asbestos-containing Material
ACBM	Asbestos-containing Building Material
ADEC	Alaska Department of Environmental Conservation
AF	Air Force
AFR	Air Force Regulation
AFI	Air Force Instruction
AFOSH	Air Force Occupational and Environmental Safety, Fire Prevention, and Health Program
AHERA	Asbestos Hazard Emergency Response Act
AIRT	Asbestos Inspection and Repair Team
AMOP	Asbestos Management and Operations Plan
APO	Asbestos Program Officer
ASHARA	Asbestos School Hazard Abatement Reauthorization Act
BE	Bioenvironmental Engineering
CA/CRL	Customer Authorization/Customer Listing
CE	Civil Engineering
CEIAP	CEI Real Property
CEIAR	CEI Finance
CEIE	CE Environmental Compliance
CEIH	CE Housing Management
CEMAS	CE Materials Acquisition System
CEO	CE Operations
CEO-2	CEO Operations Branch
CEOE	CEO Maintenance Engineering and Work Order Management
CEOI	CEO Mechanical Systems
CEOII	CEO Insulation Shop
CEOES	CE Contracts Flight
CES	Civil Engineering Squadron
CES/CC	Civil Engineering Squadron, Commander
CFR	Code of Federal Regulations
DD	Department of Defense
DRMO	Defense Reutilization and Marketing Office
EAFB	Eielson Air Force Base
EPA	Environmental Protection Agency
f/cc	Fibers per Cubic Centimeter

FSO	Flight Surgeon's Office
ft ²	Square Foot
ft ³	Cubic Foot
GC	General Contractor
GRADE	Guidance for Rating and Assessing Damage and Exposure
HEPA	High Efficiency Particulate Air
m ²	Square Meter
m ³	Cubic Meter
MDOS/SGOJ	EAFB, Medical Operations Sq./Surgeon General Operations Bioenvironmental Engineering
NESHAP	National Emission Standard for Hazardous Air Pollutants
O&M	Operations and Maintenance
OI	Operating Instructions
OSHA	Occupational Safety and Health Administration
PACAF	Pacific Air Forces
PEL	Permissible Exposure Limit
PH	Public Health
QAR	Quality Assurance Representative
RAC	Risk Assessment Code
RACM	Regulated Asbestos-Containing Material
SABER	Simplified Acquisition Base Engineering Requirements
TA	Table of Allowance
TWA	Time-weighted Average
USAF	United States Air Force
USC	United States Code

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DEFINITIONS

Aggressive Sampling - Air sampling conducted with the help of a fan or blower to increase air movement.

Amended Water - Water to which a surfactant has been added.

Asbestos Containing Material (ACM) - Asbestos or any material containing asbestos.

Asbestos Containing Building Material (ACBM) - Any building material containing asbestos.

Asbestos Fibers - A particulate form of asbestos, tremolite, chrysotile, crocidolite, anthophyllite or actinolite, 5 micrometers or longer, with a length-to-diameter ratio of at least 3 to 1.

Competent Person - One who is capable of identifying existing asbestos or hazards in the work place and who has the authority to take prompt corrective measures to eliminate them as specified in 29 CFR 1926.32 (f).

Demolition - The wrecking or taking out of any load supporting structural member of a facility together with any related handling operations.

Destructive Survey - Deliberately disturbing outer surface (as in walls, ceilings, or floors) in order to survey materials underneath it.

Emergency Survey - An immediate visual or destructive inspection of a suspected contaminated work site for the presence of asbestos.

Enclosure - A structure that is constructed to isolate a contaminated work area from a non-contaminated area.

Facility - Any institutional, commercial, or industrial structure, installation, or building.

Friable - Any material that contains more than 1 % asbestos by weight and can be crumbled, pulverized, or reduced to powder (when dry) by hand pressure.

Major Abatement Projects - An operation that requires at least 160 square feet, 260 linear feet or 35 cubic feet of friable asbestos to be removed.

Non-RACM Waste - Asbestos-containing material that is not friable or is not likely to become friable during the demolition or renovation activities.

Renovation - Altering in any way one or more facility components.

RACM Waste - Any asbestos-containing material that contains more than 1% asbestos and is friable.

Small Scale Short in Duration - These projects include the use of glove bags, the removal of an entire asbestos covered pipe or structure, the construction of mini-enclosures, enclosure of asbestos materials, and maintenance programs.

Surfactant - A chemical wetting agent added to water to improve penetration, thus reducing the quantity of water required for a given operation or area.

Visible Emissions - Any emissions containing particulate asbestos material that are visually detectable without the aid of instruments, coming from RACM or asbestos-containing waste material. This does not include condensed, uncombined water vapor.

Wetting Agent - A compound that causes a liquid to spread more easily across or penetrate into the surface of a solid by reducing the surface tension of the liquid.

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Map of EAFB

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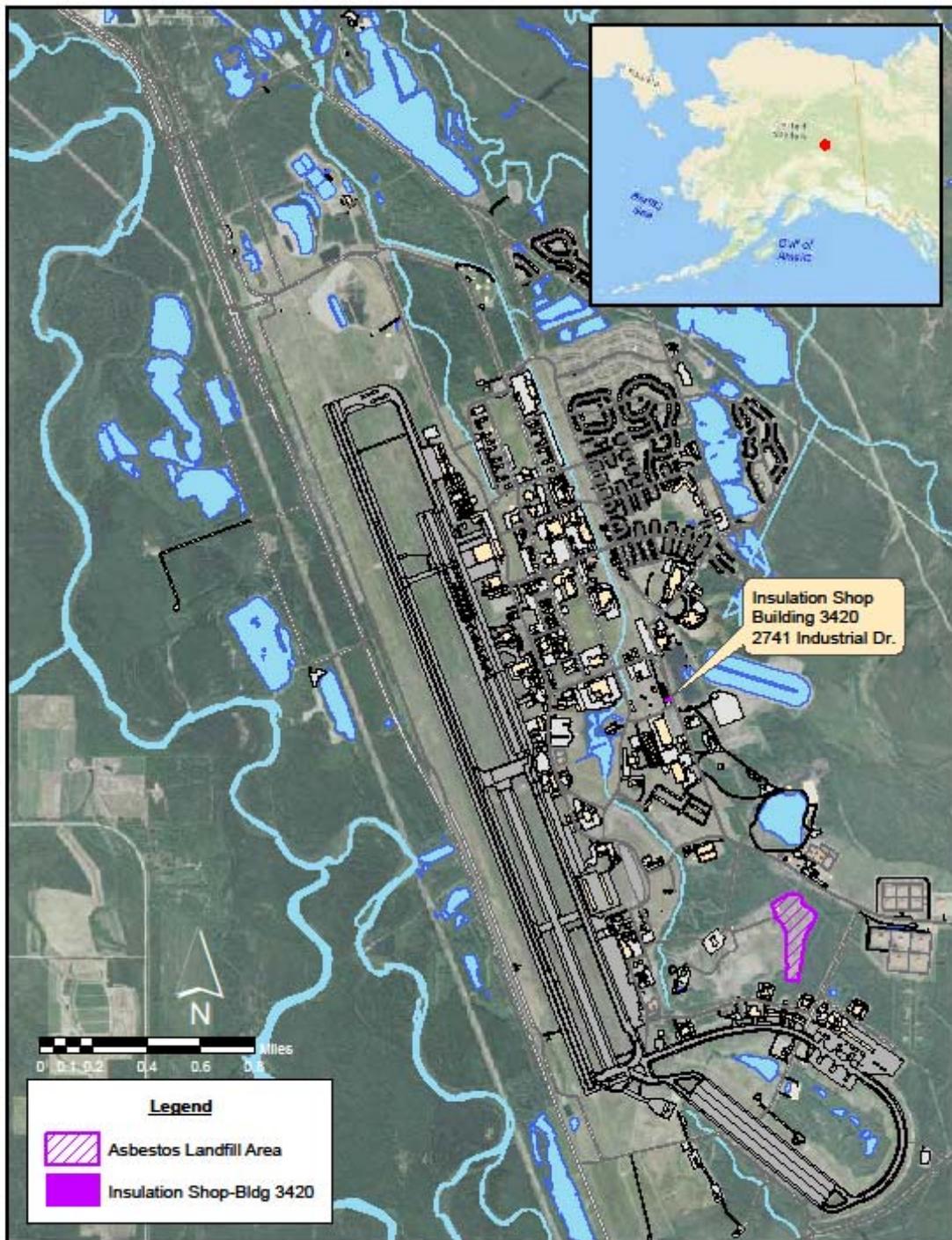


Figure 10-1: Location of Insulation Shop and Asbestos Landfill, Eielson AFB, Alaska

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Asbestos
Work Review

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ASBESTOS INFORMATIONAL HANDOUT

1. The intent of this informational handout is to provide building occupants basic information and practical guidance on how to identify and manage Asbestos Containing Material (ACM) within their home or office.
2. Asbestos was frequently used in construction and renovation projects on EAFB until the early 1980s. The presence of asbestos in a building does not necessarily mean the health of building occupants is endangered. ACM becomes a concern when building maintenance, repair, renovation, or other activities disturb or damage ACM. These actions, if done improperly, may cause a release of asbestos fibers, which could then be inhaled.
3. Things all occupants should know about asbestos:
 - There are two types of ACM: friable and non-friable. Friable material can be crumbled, pulverized, or reduced to powder by hand pressure. Friable material is of greatest concern because of its ability to release asbestos fibers into the air. One common example of this type of material is pipe insulation. Non-friable ACM, while less likely to release fibers, is common in floor tiles and construction mastics.
 - Eielson has three different types of pipe insulation: a white, chalky mixture of magnesia and asbestos, commonly called “Mag,” gray, corrugated paper coated with asbestos, commonly called “Air Cell,” and fiberglass which is usually yellow or orange and does not contain asbestos.
 - If you do have asbestos in your home or office, make sure it is in good shape with no frayed ends or holes in the pipe wrapping, no crumbling tile, and no crumbling fire-resistant asbestos wallboard (usually located behind heating pipes). Any white powder or gray, corrugated paper visible on or under your heating pipes is of concern and should be reported. Damaged insulation will be repaired promptly by trained and experienced workers when occupants call CE Service desk at extension 377-2100.
 - Things people can do to prevent damaging pipe insulation:
 - Do not allow children, pets or personnel to damage pipes.
 - Do not place furniture (desks, bed frames, cabinets, etc.) against these pipes
 - Do not bang vacuum cleaners against pipes
 - Do not use pipes as clotheslines
 - Do not use pipes as ladders
 - Do not use pipes as shelving for storing boxes, boots, etc.
4. Public awareness is an essential element of any successful environmental program. Chances of asbestos exposure are greatly reduced by having more people conscious of what to look for and how to prevent damage to ACM within their environment. If you have any questions concerning asbestos, please do not hesitate to contact your facility manager or, 354 CEI/CEIE, at 377- 3313.

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RECORD OF REVISIONS

354TH FIGHTER WING (PACAF)
Eielson AFB, Alaska 99702-2299

1. The long title of this plan is Eielson Air Force Base Asbestos Management and Operations Plan (AMOP).
2. This document is For Official Use Only, reproduction of this plan in whole or in part is authorized as required for planning and operational purposes.
3. All changes should be posted as they are received and recorded below.

<u>Revision Number & Description</u>	<u>Date Revised</u>	<u>Posted by</u>
- Changes to section 2.1.2: moved 5 th and 8 th bullets to CEOMI.	Feb 2008	K. Stringham
- Changes to section 2.1.3: moved 1 st and 5 th bullets to CEOMI.		
- Changes to section 2.1.4: moved 1 st , 3 rd , and 5 th bullets to CEOMI.		
- Changes to section 2.1.11: added six bullets. Removed “daily” from 4 th bullet and “approval” from 8 th bullet		
- Updated Table 3-1 in section 3.4		
- Changed “register” to facility files in section 4.3		
- Added “or CEOMI” to section 5.3		
- Changed name/ address for notifications in section 5.4		
- changed “register” to facility files on 3 rd bullet of section 6.2		
- changed “AOO” to CEOMI in section 7.5 and update regulatory reference.		
- Throughout the AMOP – updated office symbols	Jun 2008	K. Stringham
- Updated Quarry Hill and Asbestos permit number to SWZA019-12		
- Removed specific name of EPA contact on page 21	Jun 2009	K. Stringham
- Throughout the AMOP – updated office symbols		
- updated contents page	Jul 2010	K. Stringham
- changed 2.1.2 from Enviro Compliance to “quality”		
-changed 2.1.3 from Ops Branch to “flight”		
- moved several bullets from CEO/CEOI to CEOII		
- 2.1.4 updated 2 nd bullet from 30 to “75 years”		
- Added a section for Programs Flight under 2.1.7		
- 2.1.8 changed to (CEP/CEPT) GeoBase only		
- moved Contract Flight (CEOSS) to 2.1.9 and added several bullets		

<ul style="list-style-type: none">- moved work order management to section 2.1.10- removed Mechanical Systems (CEO/CEOIL)- removed Resource Flight (CES/CER)- added several bullets to 2.1.11 (CEO/CEOII)- moved Real Prop from 2.1.12 to 2.1.6- changed General Contractor from 2.1.13 to 2.1.12, removed 2nd bullet, added additional language to 1st and 3rd bullets- updated organizational chart on page 18- 3.3 added language to first paragraph- updated Table 3.1- 4.1.1 updated language- 4.3 changed to industrial facilities- 5.1 removed single facility sentence- 5.3 changed to CEP/CEM and CEOSS- 5.4.1 added AOO- 6.3.2 changed first bullet to AOO and 6th bullet to BE, removed final sentence of 6th bullet- Acronyms list: Added AIRT, CEAN and QAR- removed the asbestos survey form because it is not used by CEOII	Jul 2010	K. Stringham
<ul style="list-style-type: none">- Changes to Section 1.7.3: updated list of regulations- Changes to Section 2.1.1: added 4th bullet- Changes to Section 2.1.3: removed last sentence from 4th bullet- Changes to Section 2.1.4: replaced first bullet, removed second and fifth bullets- Changes to Section 3.3: “and provided to the BE” has been removed from the first sentence- Changes to Section 3.4: 1st sentence has been updated to state ASMIS software instead of pcV3- Changes to Section 5.3: 2nd sentence “BE” has been removed from the sentence. AFOSH Std 48-119 has been changed to AFI 32-1052- Changes to Section 5.4: “to the appropriate regulatory agency” has been added to the 2nd to last paragraph.- Changes to Section 6.2: 4th bullet AFI 91-301 has been changed AFI 91-202- Changes to Section 7.1: 2nd bullet “and training” has been removed from the last sentence.- Changes to Section 7.3: 1st paragraph AFOSH 161-21 has been changed to AFOSH 90-821- Changes to Section 7.5: 1st paragraph AFMAN 37-139 has been changed to AFD-080429-051, 2nd bullet has been replaced, and 3rd bullet has been changed from 30 years to 75 years- Changes to Section 8.1: 5th bullet has been changed- Changes to Section 8.2: a sentence has been added to the last bullet	June 2012	K. Stringham

- Acronyms and Abbreviations: MDOS/SGOAB has been changed to MDOS-SGOJ and aerospace medicine has been removed

- Figures have been updated

<ul style="list-style-type: none"> - Throughout the AMOP – updated office symbols - Throughout the AMOP – updated flights/office symbols in figures and tables - Changes to Section 1.1: updated language - Changes to Section 1.5: updated language - Changes to Section 1.7.2: removed “40 CFR 61.140”, encompassed by 40 CFR 61, Subpart M - Changes to Section 1.7.2: replaced “49 CFR, Chapter 1” with “49 CFR 173.216” - Changes to Section 1.7.3: deleted “AFI 91-302,” document rescinded -Changes to Section 1.7.3: added “AFI 91-203,” consolidates previous ASHOSH Stds -Changes to Section 1.7.3: deleted “AFOSH 48-8,” document rescinded -Changes to Section 1.7.3: deleted “AFOSH 91-25” and “AFOSH 91-45,” replaced with “AFI 91-203” - Changes to Section 1.7.4: changed “AAC 61.600-61.790” to “8 AAC 61.600-61.790” -Changes to Section 2.1.1: deleted bullet regarding Asbestos Operations Officer (AOO) -Delete Section 2.1.3 Asbestos Operations Officer -Changes to Section 2.1: adjust numbering of subsections -Changes to Section 2.1.4-11: delete language regarding AOO -Changes to Section 3.4: delete language regarding AOO - Changes to Section 4.2: corrected “20T-2003” to read “20T-2003” -Changes to Section 5.2-4: changed “AOO” to “APO” -Changes to Section 6.3.2: changed “AOO” to “APO” -Changes to Section 8.4: delete language regarding AOO 	<p>June 2014</p>	<p>N. Brown</p>
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RECORD OF ANNUAL REVIEW

<u>Date Reviewed</u>	<u>Comments</u>	<u>Reviewed by</u>
Jan 31, 2008	Numerous changes; see list of changes described above.	K. Stringham and Reese Cottrell
April 16, 2009	See list of changes described above.	K. Stringham and Reese Cottrell
Jul 30, 2010	See list of changes described above.	K. Stringham and Reese Cottrell

November 2011	See list of changes described above.	K. Stringham and Reese Cottrell
June 2012	See list of changes described above	K. Stringham and Reese Cottrell
August 2014	See list of changes described above	N. Brown and Reese Cottrell

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