

ARTICLE XIII – POTENTIALLY ASBESTOS-CONTAINING DUST CLEANUP AND
LIMITED VISUAL ASSESSMENT

- 13.1 GENERAL - The work to be done under this Article consists of the furnishing of all labor, materials and equipment required to properly clean potentially asbestos-containing dust accumulated on all specified and readily accessible interior surfaces up to thirty (30) feet in height and conduct a post-cleaning visual assessment at the Port Allen Harbor Shed, Port Allen Harbor, Kauai.

The locations and sizes as shown on the plan are approximate and are included for bidding purposes.

- A. In general, the work includes, but is not necessarily limited to, the following:
1. Contractor shall conduct an initial survey and coordinate with the commercial tenants (south side) and Department of Navy (north side) regarding areas of work.
 2. Contractor shall set up a work perimeter and designate a decontamination area.
 3. Contractor shall use a High Efficiency Particulate Air (HEPA) vacuum and wet wipe/mop all readily accessible horizontal and vertical surfaces up to thirty (30) feet in height.
 - a. Horizontal surfaces are defined as girts, windowsills and frames, door heads/jambs/guides, beams, purlins, diagonal braces, structure roofs, office roofs, HVAC system, existing utilities attached to steel beams and girts (i.e., fire, electrical, etc.) and storage racks.
 - b. Vertical surfaces are defined as steel columns, window frames, door jambs/guides, beams, purlins, and diagonal braces.
 4. Contractor shall conduct Occupational Safety and Health Administration (OSHA) air-monitoring for asbestos and institute Negative Exposure Assessment for all workers.
 5. Contractor shall compile test results and provide a detailed Final Report using the air-monitoring results.
 - a. Testing laboratory responsible for analysis and report of airborne fiber concentration shall comply with HIOSH 12-145 and be a successful participant in the American Industrial Hygiene Association's Proficiency Analytical Testing program for phase contrast microscopy.

6. Contractor shall conduct a post-cleaning visual inspection of the cleaned surfaces performed by a third party Competent Person, such as certified State of Hawaii Asbestos Project Monitor, to confirm no visible dust, debris and/or residuals are present. A Visual Clearance Certificate for work performed shall be prepared and signed and dated by this Competent Person.
7. Contractor shall conduct additional cleaning if deemed necessary by this Competent Person or Harbors Division designated Project Engineer.
8. All work shall be in accordance with the requirements of 29 Code of Federal Regulations 1926.1101, Hawaii Administrative Rules 12-145.1, and all applicable Environmental Protection Agency (EPA) regulations regarding asbestos.

B. Applicable Standards and Guidelines: All work under this contract, and other trade work conducted with the project, shall be done in strict accordance with all applicable federal, state, and local regulations, standards, and codes governing asbestos handling, treatment, removal, demolition, transportation, and disposal of asbestos, as required. The most recent edition of any relevant document shall be in effect. Where conflict or any inconsistency among requirements or with this shall govern these specifications, except that any more stringent specification or any specification providing greater protection against asbestos exposure, injury, loss, or liability shall control to the extent permitted by regulation. Any question regarding conflict or inconsistency between specifications and/or regulations should be referred to the Project Engineer. Ignorance of the above requirements or any applicable State and local regulations resulting in additional cost to the Contractor shall not be paid by the State.

Specific Statutory and Regulatory Requirements include, but are not limited to the following:

1. PL 99-519, Toxic Substance Control Act, Title II, Asbestos Hazard Emergency Response Act (AHERA).
2. 40 CFR Part 61, National Emission Standards for Hazardous Air Pollutants (NESHAP) Subpart A (General Provisions) and Subpart M (National Asbestos Standards).
3. 40 CFR Part 763 Appendix A to Subpart E, Interim Transmission Microscopy Analytical Methods – Mandatory and Non-mandatory – and mandatory Section to Determine Completion of Response Actions, October 30, 1987.
4. 40 CFR Part 763, Asbestos Model Accreditation Plan [59 CFR 5236] (February 3, 1994).

5. 40 CFR Part 172, Transportation, Hazardous Materials Regulations.
6. Occupational Safety and Health Administration (OSHA) 29 CFR 1926.58, General Construction Standard.
7. OSHA 29 CFR 1926.1101, Asbestos.
8. Chapter 12-145, 12-145.1, Hawaii Occupational Safety and Health Division (HIOSH) Construction Standards, Asbestos.
9. Chapter 12-206, HIOSH Health Standards, Asbestos.
10. Chapter 16-77, Subchapter 19, DCCA Asbestos Contractors.
11. Hawaii Revised Statutes, Sections 321-11(26), 321013(a)(I) and 321-15.
12. 29 CFR 1910.134, General Industry Standard for Respiratory Protection, OSHA, DOL.
13. 29 CFR 1910.2, Access to Employee Exposure and Medical Records, OSHA, DOL.
14. 29 CFR 1910.1200, Hazard Communications, OSHA, DOL.
15. Guidance for Controlling Asbestos-Containing Materials in Buildings, (Purple Book), EPA.
16. 29 CFR 1910.145, Specifications for Accident Prevention, Signs, and Tags, OSHA, DOL.
17. American National Standards Institute, Inc. (ANSI) Z88.2-92 Practice for Respiratory Protection.
18. Hawaii Administrative Rules (HAR) 11-501, Asbestos Requirements.
19. HAR 11-503, Fees for Asbestos Removal and Certifications.
20. HAR 11-504, Asbestos Abatement Certification Program.

13.2 MATERIALS

- A. HEPA Vacuums: HEPA vacuums shall conform to ANSI Z9.2-79, Fundamentals Governing the Design and Operation of Local Exhaust Systems as applicable to this project.

- B. Plastic Sheeting: Minimum thickness is 6-mil polyethylene film.
- C. Plastic Bags: Minimum thickness is 6-mil polyethylene film labeled as specified hereinafter.
- D. Tapes: Tape shall be capable of sealing joints of adjacent sheets of polyethylene sheets to finished or unfished surfaces of dissimilar materials and capable of adhering under both dry and wet conditions, including the use of amended water. Silver cloth duct tape, minimum two (2) inches wide, red or NATO orange tape, minimum two (2) inches wide for exit arrows; and double-faced foam tapes.
- E. Adhesives: Adhesives shall be capable of sealing lapped sheets of polyethylene together or to finished or unfished surfaces of dissimilar materials. Adhesives shall adhere under both dry and wet conditions.
- F. Warning Labels and Signs: As required by OSHA regulations 29 CFR 1926.1101 and HIOSH 12-145.1 Labels for asbestos debris must also meet the requirements of HIOSH 12-145.1. The generator's name and address must be attached or included in bagged or wrapped asbestos debris.
- G. Personal Protection Equipment: The Contractor shall have all required sets of coveralls required for this project on island prior to the start of work. There will be no time extension for the unavailability of coveralls or related equipment.
1. The Contractor acknowledges he alone is responsible for instruction and for enforcing personnel protection requirements and that these specifications provide only a minimum acceptable standard.
 2. Provide workers with personally issued and marked air purifying respirators (including filtering facepieces) with filters certified by NIOSH, under 30 CFR Part 11 and 42 CFR Part 84, and accepted by OSHA and HIOSH. All work related to the removal, wrapping, and bagging of asbestos containing material shall be performed in NIOSH-approved half-face respirators equipment with HEPA cartridges.
 3. Workers loading and unloading asbestos debris at the project site and landfill shall wear NIOSH-approved respirators that provide adequate respiratory protection.
 4. No bearded or unshaven person(s) shall be allowed on site to perform asbestos work.
 5. Provide workers with sufficient sets of disposable protective full body clothing consisting of material impenetrable by asbestos fibers and of the proper size for everyone to accommodate movement without tearing. Such clothing shall consist of full body coveralls, footwear, gloved and

headgear. Provide hard hats as required by applicable safety regulations. Disposable clothing shall not be allowed to accumulate and shall be placed in plastic bags, inside a drum, and labeled as asbestos-contaminated waste. Protective clothing shall be worn by all personnel within the work area from the start of removal work until the work area has received its final clearance.

6. No visitors shall be allowed in work areas, except as authorized by the Project Engineer. Provide authorized visitors with suitable disposable protective full body clothing consisting of coveralls of the proper size to accommodate movement without tearing. Such clothing shall consist of full body coveralls, shoes with shoe covers, gloves, and headgear, including in his bid the expense of a total of two (2) changes of clothing per day for each day of asbestos work for visitor's use. The quantity shall accumulate and may be used at any time during cleanup work at the discretion of the Project Engineer.
7. Additional safety equipment (e.g., hardhats meeting the requirements of ANSI Z89.1-1981, eye protection meeting the requirements of ANSI Z87.1-1979, safety shoe covering meeting the requirements of ANSI-Z41.1-1967, disposable PVC gloves), shall be provided to all workers and authorized visitors as needed.

13.3 CONSTRUCTION

- A. All work shall be executed in an orderly and careful manner with due consideration for all existing items to be cleaned. The Contractor shall take precautions to prevent damage to items indicated to be cleaned. The Contractor shall repair any damage to items indicated to be cleaned at no cost to the State.
- B. All waste generated (disposal rags, coverall, gloves, plastic vacuum bags, etc.) shall be double bagged in 6-mil polyethylene bags, double goose-necked, duct taped and properly disposed of at an approved asbestos disposal site.
- C. Noise and Dust Control - The following noise and dust control measures are listed to reduce the negative impacts to the tenants of the Port Allen Harbor shed during the cleanup activities.
 1. The Contractor shall coordinate with the Harbors Division Project Engineer the dates and times when cleanup work will produce excessive sound levels. The Contractor shall schedule work around tenant operations or provide other measures to minimize noise during construction activities when required.
 2. The Contractor shall take appropriate action to check the spread of dust and to avoid the creation of nuisance in the surrounding area. Provide dust screens, tarpaulins, or similar barriers to prevent damage to and dust from

entering the adjacent structures. Comply with all dust regulations imposed by local air pollution agencies.

3. The Contractor shall obtain approval from the Harbors Division Project Engineer for proposed noise and dust control measures to be implemented during the cleanup activities prior to placement.
- D. Contractor shall notify the Harbors Division Project Engineer if existing areas will not be accessible during cleanup work.
- E. Removal and Disposal – The Contractor shall be responsible for handling, transporting and disposal of all potentially asbestos-containing dust debris from the subject property at no additional cost to the State.
1. Title of Materials – Title to all materials to be removed, except as specified otherwise, is vested in the Contractor upon approval by the Harbors Division Project Engineer of the Contractor's cleaning procedures and authorization to begin cleanup. The State will not be responsible for the condition or loss of, or damage to, such property after notice to proceed.
 2. Removed material shall be disposed of away from the project site in a lawful manner at no cost to the State. The Contractor will not be allowed to deposit removed material into trash dumpsters owned by the State or tenants.
 3. Remove and transport debris and rubbish in a manner that will prevent spillage on pavements, streets, or adjacent areas. Comply with Federal, State, and local hauling and disposal regulations.

13.4 PAYMENT - Payment for Potentially Asbestos-Containing Dust Cleanup and Limited Visual Assessment shall be made as described in Article X of these Specifications.