

SECTION 13282 - LEAD PAINT CONTROL MEASURES

PART 1 - GENERAL

1.01 SUMMARY

- A. In performing the handling of building components with lead, all possible safeguards, precautions and protective measures shall be utilized to prevent exposure of any individual to lead particulates.

1.02 DESCRIPTION OF WORK

- A. Pavilion structure was tested for lead. The listed materials were coated with lead paint.
 - 1. Lead-Based Paint (containing lead at/or greater than 0.5% lead by weight)
 - a. Interior and Exterior Walls.
 - 2. Lead-Containing Paint (containing lead at/or greater than the laboratory detection limits but less than 0.5% lead by weight)
 - a. Interior and Exterior Walls.
- B. Furnish all labor, materials and equipment necessary to carry out the safe removal, clean-up, proper handling, transportation and disposal of lead paint debris in compliance with all applicable laws and regulations concerning lead, including all incidental and pertinent operations. The lead work shall generally include:
 - 1. Removal and disposal of loose and flaking or otherwise deteriorated paint to allow for safe surface preparation and repainting.
 - 2. Removal and disposal of intact paint to allow for safe new work and/or renovation work.
 - 3. Incidental disturbance of lead paint during the renovation activities.
 - 4. The Contractor shall assume any untested paint to contain lead.

- C. The Contractor shall be responsible for ensuring that all work generating lead debris conforms to the following applicable federal, state and local laws, codes, rules and regulations.
 - 1. Occupational Safety and Health Administration (OSHA); Hawaii Occupational Safety and Health (HIOSH) standards and rules.
 - 2. Environmental Protection Agency (EPA), Toxic Substance Control Act (TSCA), 40 CFR Part 745, Lead, Requirements for Lead Based Paint Activities in Target Housing and Child Occupied Facilities.
 - 3. Environmental Protection Agency (EPA), Resource Conservation and Recovery Act (RCRA) of 1976, amended in 1980 and 1984.

1.03 COORDINATION WITH OTHER SECTIONS

- A. The Contractor shall coordinate all of his lead paint removal and demolition of lead components with the Contracting Officer and the General Contractor.

1.04 CONTRACTOR RESPONSIBILITIES

- A. The Contractor acknowledges that he alone is responsible for the instruction and for enforcing personnel protection requirements and that these specifications provide only a minimum acceptable standard. Contractor shall comply with all requirements of 29 CFR 1926.62. The Contractor shall also be responsible for complying with all applicable EPA regulations in regard to lead containing materials.
- B. Respirators: Use appropriate respirators and filters which meet all requirements of OSHA 29 CFR 1926.62.
- C. Protective Clothing: Use appropriate personal protective clothing (disposable suits, eye protection, gloves, etc.) as required by OSHA 29 CFR 1926.62.

1.05 GENERAL REQUIREMENTS

- A. The work specified herein shall include the handling of lead-based paint and lead-containing paint, transportation and disposal procedures as required of lead containing materials by persons with at least OSHA Lead Training. This work must be performed in compliance with all applicable federal, state, and local regulations and be performed by workers who are capable of and willing to perform the work of this contract.
- B. Applicable Standards and Guidelines: All work under this contract, and any 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 lead demolition, transportation and disposal of lead materials.
 - 1. The most recent edition of any relevant regulation, standard, document or code shall be in effect.
- C. Specific Statutory and Regulatory Requirements:
 - 1. Title 29, Code of Federal Regulations, Section 1926.62, entitled "Lead Exposure in Construction; Interim Final Rule".
 - 2. Title 29 Code of Federal Regulations Part 1910.134, Respiratory Protection.

3. Federal Register: Vol. 54, No. 131; Tuesday, July 11, 1989. Department of Labor, Occupational Safety and Health Administration; 29 CFR Parts 1910, 1915, 1917, and 1918; Occupational Exposure to Lead; Statement of Reasons; Final Rule.
4. Title 40 Code of Federal Regulations Part 61, National Emissions Standards for Hazardous Air Pollutants.
5. Title 40 Code of Federal Regulations Part 745, Lead; Requirements for Lead Based Paint Activities in Target Housing and Child Occupied Facilities; Final Rule.
6. Guidelines for the Evaluation and Control of Lead Based Paint Hazards in Housing.

1.06 DEFINITIONS

- A. Action Level (AL): Employee exposure averaged over an 8-hour period, without regard to the use of respirators, to a particular airborne concentration. OSHA requirements become effective at this level. Lead: 30 micrograms per cubic meter of air.
- B. Air Monitoring: The process of measuring the content of a specific, known, volume of air in a stated period of time. For this project, NIOSH 7082 method for lead monitoring.
- C. Authorized Visitor: The Contracting Officer, their representatives, air monitoring personnel, or a representative of any regulatory or other agency having jurisdiction over the project.
- D. Competent Person: Person employed or hired by the Contractor, who is educated and trained in recognizing and evaluating workplace hazards and stress (in this instance, lead demolition and related work in accordance with 29 CFR 1926.62) and providing guidance on the methods and means of removing or correcting such hazards and stresses within the work environment.
- E. Contaminated Area: An area where unwanted toxic or harmful substances exists.
- F. HEPA Filter: A High Efficiency Particulate Absolute filter capable of trapping and retaining 99.97 percent of particulates greater than 0.3 micron in length.
- G. Lead: Metallic lead, all inorganic lead compounds, and inorganic lead soaps. Excluded are all other organic lead compounds.
- H. Monitoring Specialist: A person under the supervision of the Lead Supervisor who is trained in health and safety requirements for lead exposure and air-monitoring in accordance with 40 CFR 745, 29 CFR 1926.62.
- I. Permissible Exposure Limit (PEL): The employer shall ensure that no employee is exposed to concentrations greater than the PEL as determined from an 8-hour time weighted average. Lead: 50 micrograms per cubic meter.

- J. Personal Monitoring: Contractor's sampling of lead in air concentrations within the breathing zone of an employee to determine the 8-hour time weighted average. The samples shall be representative of the employee's work tasks. The breathing zone shall be considered an area within 12-inches of the nose or mouth of an employee.
- K. Qualified Consultant: Consultant hired by the General Contractor who will perform air monitoring and inspection during lead disturbance work and shall have the authority to initiate engineering controls.

1.07 ABBREVIATIONS

- A. CFR: Code of Federal Regulations.
- B. HIOSH: Department of Occupational Safety and Health, Department of Labor and Industrial Relations, State of Hawaii.
- C. EPA: U.S. Environmental Protection Agency.
- D. NIOSH: National Institute for Occupational Safety and Health.
- E. OSHA: Occupational Safety and Health Administration.
- F. NESHAP: National Emissions Standards for Hazardous Air Pollutants.
- G. LP: Lead Paint.
- H. TCLP: Toxicity Characteristic Leaching Procedure.

1.08 SUBMITTALS PRIOR TO WORK

- A. Payment: Final payment will not be made until copies of all submittals have been furnished to and accepted by the Contracting Officer. Submit 6 copies of the submittal package no later than 10 workdays from the notice of award unless otherwise specified in this Section. The submittal package will include the items listed below.
- B. Detailed Work Plan: The Contractor shall submit a project work plan for the lead disturbance work. The Plan shall be prepared by the Certified Industrial Hygienist. The Contractor shall also provide detailed information concerning:
 - 1. Preparation of the work area.
 - 2. Personal protective equipment including respiratory protection and protective clothing.
 - 3. Employees who will participate in the project: include documentation of experience, documented proof of lead removal training based on 29 CFR 1926.62 and/or the proposed EPA Model Accreditation for Lead Based Paint Removal Work Training, in addition to any current EPA regulatory requirements, and assigned responsibilities during the project.
 - 4. Decontamination procedures for the personnel who may be exposed to lead.
 - 5. Lead handling and disposal methods and procedures to be used.

6. Required air monitoring procedures and sampling protocols.
 7. Procedures for final cleanup.
 8. A sequence of work and performance schedule in coordination with other trades.
 9. Emergency procedures.
- C. Shop Drawings: Submit shop drawings for the following items as a minimum:
1. Descriptions of any equipment to be employed not discussed in this Section.
 2. Security provisions, if any, in and around the project area.
 3. Outline of work procedures to be employed.
 4. Location of the waste storage area.
 5. Staging of the work, the sequence.
 6. Entrances and exits to the workplace.
 7. Location and construction of worker decontamination units.
- D. Competent Person: Qualification of the Contractor's Competent Person.
- E. Notices: The Contractor shall obtain a Generator's EPA Identification number (if necessary) for the lead containing waste material generated from the project that is determined to be hazardous.
- F. Insurance: Proof of insurance for Workman's Compensation and General Liability which covers asbestos, lead, and pollution.
- G. Manufacturer's Data: Copies of manufacturer's specifications, installation instructions and field test procedures for each material and all equipment related to lead handling and abatement and include other data as may be required to show compliance with these specifications and proposed uses.
- H. Documentation for Instructions:
1. Submit documentation satisfactory to the Contracting Officer that the Contractor's employees, including foremen, supervisors, and any other company personnel or agents who will be exposed to airborne lead dust or who shall be responsible for any aspects of the lead removal work activities, have received training in accordance with this specification, 29 CFR 1926.62, (OSHA Lead Awareness or the EPA Model Accreditation for Lead Based Paint Removal Work Training) and any current EPA regulatory requirements.
 2. Submit to the Contracting Officer a written respiratory protection program meeting the requirements of 29 CFR 1910.134(b)(d)(e) and (f), documentation that all employees using respirators have received training, and documentation of respirator fit-testing for all Contractor employees and agents who will enter the work area wearing negative pressure respirators.

The Contractor shall be solely responsible for his employee's personal protection.

- I. Documentation from Physician: Before exposure to lead dust or fumes, the Contractor shall provide workers with a comprehensive medical examination as required by 29 CFR 1926.62, or whichever is stricter. This examination will not be required if adequate records show the employees have been examined as required by the aforementioned regulations within the last year.
- J. Respirators: Submit document NIOSH approvals for all respiratory protective devices used on site. Include manufacturer certification of HEPA filtration capabilities for all cartridges and filters.
- K. Emergency Planning Procedures:
 - 1. The Contractor shall submit an emergency evacuation plan for the Contracting Officer's acceptance prior to the commencement of work. This plan shall include consideration of fire explosion, toxic atmospheres, electrical hazards, slips, trips and falls, confined spaces and heat related injury. In non-life threatening situations, the injured or incapacitated employee shall decontaminate following normal procedures, with assistance from co-workers if necessary, before exiting the work area to obtain proper medical treatment. In life threatening situations, worker decontamination shall take least priority after measures to stabilize the injured worker, remove the injured worker from the work area, and secure proper medical treatment.
 - 2. Emergency Response and Evacuation: The Contractor shall provide and document training in emergency response and evacuation procedures to all workers entering the work area.
- L. Weekly Submittals During the Lead Disturbance Work: Copies of the following:
 - 1. Contractor's weekly job progress reports detailing lead disturbance, handling, transportation, and disposal activities. In the job progress reports, the Contractor shall include information on the review of progress concerning previously established milestones and schedules, major problems and action taken, injury reports, equipment breakdown, and bulk material and air sampling results.
 - 2. Work site entry logbooks with information on worker and visitor access.
 - 3. Daily logs documenting filter changes on respirators, HEPA vacuums, and other engineering controls.
 - 4. Waste disposal manifest forms for all lead containing waste material removed from the lead removal site and transported to the disposal site. The papers will include a chain-of-custody form with the names and addresses of the facility, the Contractor, the landfill operator, as well as the estimated quantity of lead containing waste material, and the number and type of containers used. The form shall be signed and dated by the Contracting Officer, the Contractor, and the landfill operator as the material changes custody. If a separate hauler is employed, their name, address, telephone number, and signature also shall appear on the form.

- M. Waste Disposal and Landfill Requirements: Contractor shall separate lead chips and debris from non-hazardous waste materials such as used plastics, disposable tools, etc. Contractor shall clean all bulk lead containing debris and waste from non-hazardous plastic, tools, suits, etc. prior to disposal.
1. If Toxic Characteristic Leaching Procedure (TCLP) test results of the containers of waste material are below the EPA limit the lead containing waste materials shall be disposed of at a landfill approved for such purposes. The Contractor shall submit to the Contracting Officer, documentation that the lead containing waste material removed from the work area has been accepted by the landfill Owner.
 2. If the TCLP test results are above the EPA limit or if materials are identified as hazardous waste, the lead containing waste materials shall be disposed of at an EPA approved facility capable of accepting such hazardous waste.
 3. The Contractor shall submit to the Contracting Officer, documentation that disposal of the lead containing waste material at the selected landfill is approved by the State of Hawaii, or the EPA approved mainland facility for hazardous lead containing waste material.

1.09 SUBMITTAL AFTER WORK IS COMPLETED

- A. Report: At the completion of the work, a final report shall be prepared by the Contractor for acceptance by the Contracting Officer. The report shall be submitted and shall include the items listed below.
1. The project name, Abatement Contractor, Abatement Contractor license number, EPA waste generator number, work duration, material removed, respiratory protection employed, waste manifest signed by the Contractor, waste transporter, and landfill operator, and total quantity of waste, TCLP lead reports, employee exposure air sample results, and results of the most current PAT round results for the laboratory conducting the employee exposure air sample analysis.
 2. Certification of the Abatement Contractor's employees.
 3. Visitor/Worker Entry Log: The daily log of all personnel including the Contractor's employees and agents who enter the work area while lead abatement operations are in progress, until final clearance is received from the Qualified Consultant. The log shall contain the listed information as a minimum and shall be certified by the Qualified Consultant.
 - a. Date of visit/worker entry.
 - b. Visitor/Worker's name, employer, business address and telephone number.
 - c. Time of entry and exit from work area.
 - d. Purpose of visit.
 - e. Type of protective clothing and respirator worn.
 - f. Certificate of release signed and filed with the Contractor.
 4. Clearance: Clearance certifications received from the Qualified Consultant.

5. Certification Statement: A statement signed by the Lead Abatement Contractor that all lead abatement and disposal was completed in compliance with this specification, Federal and State regulations, and the approved Work Plan.

PART 2 - PRODUCTS

2.01 TOOLS AND EQUIPMENT

- A. General: Provide and fabricate suitable tools for the lead disturbance procedures.
- B. Other tools and equipment as necessary.

2.02 PERSONNEL PROTECTION REQUIREMENTS

- A. 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.
- B. Provide workers with sufficient sets of disposable protective full body clothing consisting of material impenetrable by lead and of the proper size for each individual to accommodate movement without tearing. Such clothing shall consist of full body coveralls, footwear, gloves and headgear. Provide hard hats as required by applicable safety regulations. Disposable clothing shall not be allowed to accumulate and shall be disposed of as lead contaminated waste. Protective clothing shall be worn by all personnel within the work area from the start of the removal to final visual clearance.
- C. Insulated non-skid rubber boots or accepted equivalent shall be required for all individuals entering the work area. Protective full body clothing without elastic at sleeves and legs shall require separate elastic or taped protection to seal the opening. Visitors shall be provided with full-body protective clothing.
- D. Additional safety equipment (e.g. hard hats meeting the requirements of ANSI Z-89.1, eye protection meeting the requirements of ANSI Z87.1, safety shoes meeting the requirements of ANSI F2413, disposable PVC gloves), as necessary, shall be provided to all workers and authorized visitors.

PART 3 - EXECUTION

3.01 POTENTIAL LEAD HAZARD

- A. The disturbance or dislocation of lead paint may cause lead containing dust to be released into the atmosphere, thereby creating a potential health hazard to the workers and the general public. Apprise all workers, supervisory personnel, subcontractors, consultants, authorized visitors, occupants and neighbors who will be at or near the job site of the seriousness of the hazard and of proper work and protective procedures which must be followed.
- B. Where in the performance of the work, workers, supervisory personnel, subcontractors, or consultants who may encounter, disturb, or otherwise function in the immediate vicinity of any identified lead containing materials, take appropriate continuous measures as necessary to protect all workers and the

general public from the potential hazard of exposure to respirable airborne lead dust. Such measures shall include the procedures and methods described in the regulations of applicable federal, state and local agencies.

3.02 WORK AREA PREPARATION

- A. Protect surrounding area from possible contamination.
- B. Treatment of Surfaces: During disturbance work, acceptable industry standard dust control methods shall be used to control dust (such as wetting items to be disturbed, by misting; provide dust screens; remove items in large, whole pieces; avoid crushing and pulverizing removal methods; encapsulate material prior to disturbance; use amended water; and containerize wet waste material). Prevent contamination spreading to the surrounding public and residential area.
- C. Barriers: Standard barriers such as construction warning tape, fencing, etc. shall be used to prevent the general public access on to the work site. Seal any penetrations to the affected work area with 6 mil polyethylene plastic sheeting and duct tape.
- D. NESHAP Compliance: Compliance with the requirements of EPA's NESHAP regulation is required for this project. Proper notification of the renovation of the building to the Department of Health shall be the Contractor's responsibility.
- E. Ensure that all personnel working on site during the demolition work are properly trained and protected as required by law.

3.03 CLEANUP AND TESTING

- A. Post-abatement visual clearance will be conducted by the Qualified Consultant along with the the Contractor's Competent Person.
- B. All non-hazardous waste shall be removed from the site by the completion of the project. The Contractor, in the presence of the Qualified Consultant, shall collect representative samples of the waste stream for TCLP lead analysis. All hazardous waste shall be removed from the site to an EPA approved disposal facility within 90 days of the removal work.
- C. Clean Up and Testing: Wet clean and HEPA vacuum clean surfaces and surrounding ground within the lead control area daily. Do not allow lead debris to accumulate. Restrict the spread of dust and debris. Keep waste from being distributed over the general area. Do not dry sweep or use compressed air to clean the area. When the removal operation has been completed, the area will be cleaned of all visible lead debris contamination by vacuuming with a High Efficiency Particulate Absolute (HEPA) filtered vacuum cleaner followed by wet mopping where applicable. The Qualified Consultant will visually inspect the affected surfaces for residual lead debris and accumulated dust before the eventual removal of the lead controlled area. The Contractor shall reclean areas showing dust or residual lead debris or if he fails visual clearance. If recleaning is required, the process will be repeated until the visual clearance is given by the Qualified Consultant. Do not remove the lead control area or roped-off perimeter and warning signs prior to the receipt of the Qualified Consultant's lead clearance certification.

3.04 TRANSPORTATION AND DISPOSAL

- A. Disposal of Hazardous Waste and Non-Hazardous Waste: Contractor shall separate potentially non-hazardous waste material (i.e. plastic sheeting, disposable protective suits, etc.) from hazardous waste material prior to testing. All other debris, scraps, waste materials, rubbish and trash contaminated with lead and contaminated dust from the immediate work area and place in UN approved (49 CFR 178) and appropriately labeled containers and store on site for TCLP lead testing. The Contractor shall be responsible for collecting and paying of all TCLP testing.
 - 1. Local waste landfill facilities do not accept any RCRA hazardous waste. All hazardous waste must be disposed of at an EPA approved mainland U.S. hazardous waste disposal facility. Hazardous waste must be disposed of within 90 days of the waste being created.
 - 2. Non-hazardous lead waste and debris may be disposed of at the local waste landfill facility that is State approved to accept such waste.
 - a. Notify Non-hazardous Waste Landfill Operator. The Contractor shall advise the Non-hazardous Waste landfill operator, at least 24 hours prior to transportation, of the material to be delivered.
 - b. Provide the Non-hazardous Waste Landfill Operator with applicable TCLP results which indicate that the waste material is non-hazardous.
- B. Disposal of Non-Hazardous Construction Debris (TCLP for Lead Not Exceeding EPA Limits): Remove non-hazardous lead waste including, debris, scraps, waste materials, rubbish, and trash from the site and disposed of at a landfill approved for disposal.
- C. The Contractor shall submit disposal manifest and receipts showing acceptance of all waste material by the approved waste disposal site to the Contracting Officer. The shipping papers shall include a chain-of-custody form and include names and addresses of the Facility Owner, the Contractor, and the Landfill Operator and information on the type and number of waste containers.

3.05 CLEARANCE CRITERIA

- A. Post-abatement visual clearance will be conducted by the Qualified Consultant. Any additional clearance inspection initiated by the Contractor or required due to failure of the first set of clearance inspection shall be at the Contractor's expense.

3.06 TESTING AND AIR MONITORING

- A. The Qualified Consultant shall have the authority to instigate engineering controls during the project.
- B. Testing, daily area (environmental) air monitoring and final clearance inspections shall be provided by the Qualified Consultant, for the purpose of:
 - 1. Verifying compliance with this Section and the applicable regulations listed in this Section.
 - 2. Ensuring that the documentation required by this Section and by law is collected and reported to the Contracting Officer.
 - 3. Instigating engineering control during the project.

3.07 CONTRACTOR RESPONSIBILITIES

- A. The Contractor shall be responsible for all TCLP lead testing and analysis.
- B. The Contractor shall be responsible for his employees' personnel protection, personal air monitoring and necessary records as required by OSHA, Hawaii State Law and all other applicable laws and as required in these specifications. The Contractor shall provide all required documentation to the Contracting Officer. Contractor shall collect daily personal air samples on at least 25 percent of the personnel performing removal work with the most exposure for the duration of the project.

3.08 MONITORING RESULTS

- A. Airborne lead levels in areas adjacent to the work area or in any part of the work site impacted by the removal activities shall not exceed 30 micrograms per cubic meter of air.
- B. If the ambient concentrations exceed 30 micrograms per cubic meter of air, the Contractor shall cease all work immediately in any work area causing or contributing to such a condition. The Contractor shall take remedial action (e.g. misting with more water, encapsulation, provide dust screens, etc.) to reduce concentrations to acceptable levels.
- C. The Contractor is solely responsible for monitoring his personnel in compliance with all OSHA and HIOSH requirements.

END OF SECTION