

1. Comprehensive updates necessary for TG 13282 Technical Guide (last update was done in May 2003). Changes to make minimum requirements for more common office type buildings with specifier notes for more stringent requirements for defined facilities.

**Lead-Based Containing Paint Control Measures
TECHNICAL GUIDE**

TG 13282

SPECIFIER'S NOTES: All references in this Section pertain only to the minimum requirements specified in OSHA 29 CFR 1926.62, 29 CFR 1910.1025 and HIOSH 12-60. Where at the residence, building, or portion of a building contains lead-based paint and meets the definitions of "Target Housing" and/or "Child-occupied Facility", the more stringent requirements apply as stated in 40 CFR Part 745, HUD "Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing", HDOH 11-41, and all other applicable Federal, State, and local regulations (See Section 2.2 for definitions of "Target Housing" and "Child-occupied Facility"). For whatever rationale on a case by case basis, some facilities may be authorized to use more stringent requirements that are not equal to facility definitions mentioned DAGS requires stringent requirements for Public Libraries as they are used for children to stay after school until parents pick them up after work.

Blue colored italicized text is used for notes to the specifier and should be completely deleted from the final text. Where [Red colored text in brackets] is shown in this specification section, insert wording, numbers, etc. as appropriate and delete brackets. Where <Red colored text in brackets> is shown, a choice is indicated. Make the appropriate choice and delete the brackets. Maintain footer notation with the current version used (e.g. TG13282 v18.082). Verify that section titles cross referenced in this Section correspond to this Project's specifications; Section titles may have changed.

1. COORDINATION ISSUES:

- 1.1 For all projects where existing paint will be disturbed ~~in buildings constructed prior to 1978,~~ a consultant ~~currently~~ certified by the ~~EPA-Hawaii Department of Health~~ as a Lead Project Designer ~~or Lead Supervisor~~ shall be employed. ~~Consultant shall be certified in accordance with 40 CFR 745 Subpart L.~~
- 1.2 Consultant shall determine whether testing for lead-~~based~~containing paint will be done.
- 1.3 If it is determined or assumed that lead-~~based~~ containing paint will be disturbed, a specification ~~Section "13282 -- LEAD-~~Based~~ Containing-PAINT~~aint~~ CONTROL~~ontrol~~ MEASURE~~Seasures~~"~~ shall be developed to deal with the lead-~~based~~ containing paint hazards. Throughout this Technical Guide, lead-~~based~~ containing paint is defined as paint containing lead in any amount.
- 1.4 The classification of the lead-~~based~~ containing paint as hazardous waste must be performed in accordance with 40 CFR 261 to 268, and in the design phase of the project. This classification is prerequisite to the requirement of special handling, storage, and disposal according to Federal and local hazardous waste management regulations.
- 1.5 A site visit shall be required so that appropriate provisions can be included in the design.
- 1.6 Evaluate ~~d~~ whether building occupants need to be relocated during lead-~~containing~~ paint disturbance.
- 1.7 Lead hazard regulations and engineering controls shall include the maintenance and warranty period following construction completion or acceptance.

2. DESIGN ISSUES:

2.1 Project shall conform to all applicable -federal, state, and local regulations. At the minimum the following regulations and guides shall be followed:

A. Title 29, Code of Federal Regulations, Section 1926.62, entitled "Lead Exposure in Construction; Interim Final Rule.

B. Department of Labor and Industrial Relations: State of Hawaii, Occupational Safety and Health Standards, Title 12, Subtitle 8, Part 2, Chapter 60, (also known as Chapter 12-60, Hawaii Administrative Rules, entitled "General Industry Standards", "General Safety and Health Requirements".)

C. Title 29 Code of Federal Regulations Part 1910.134, Respiratory Protection.

D. 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.

E. Title 40 Code of Federal Regulations Part 61, National Emissions Standards for Hazardous Air Pollutants.

F. Title 40 Code of Federal Regulations Part 261 to 265, 268.

Title 40 Code of Federal Regulations Part 745, Lead; Requirements for Lead-Based Paint Activities.

G. Title 49 Code of Federal Regulations Part 172, Hazardous Materials, Tables, Special Provisions, Hazardous Materials Communications, Emergency Response Information, and Training Requirements.

H. Title 49 Code of Federal Regulations Part 178, Specifications for Packaging.

U.S. Department of Housing and Urban Development, "Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing", 2012.

I. U.S. Department of Labor, Occupational Safety and Health Administration, Construction Standard 29 CFR 1926, Subpart M, Fall Protection.

Title 11, Hawaii Administrative Rules, Department of Health, Chapter 41, Lead-Based Paint Activities.

2.2 All the requirements for 40 CFR 745 Subpart L and Hawaii DOH Chapter 11-41 (~~HAR 11-41~~) shall apply even though the building does not meet the regulation's definition of Definitions unless otherwise clear from the context, as used in this contract:

2.2.1 ——"Child-occupied Facility":— A building or portion of a building, constructed prior to 1978, visited regularly by the same child, under 6 years of age, on at least two different days within any week (Sunday through Saturday period), provided that each day's visit lasts at least 3 hours and the combined weekly visits last at least 6 hours, and the combined annual visits last at least 60 hours. Child-occupied facilities may include, but are not limited to, day care centers, preschools and kindergarten classrooms, in target housing, or in public or commercial buildings and State and DOE libraries.

2.2.2 ——"Competent Person": One who is qualified to be capable of identifying existing and predictable lead hazards in the surroundings or working conditions and who has authorization to take prompt corrective measures to eliminate them.

~~2.2.3~~ "Contractor": The construction firm engaged to remove and dispose of the lead-containing materials.

~~2.2.4~~ "Target Housing:" Any housing constructed prior to 1978, except housing for the elderly or persons with disabilities (unless any child who is less than 6 years of age resides or is expected to reside in such housing) or any zero-bedroom dwelling, or "Child-occupied Facility."

~~In other words, all facilities shall be considered to be covered by the regulations in 40 CFR 745 Subpart L and HAR Hawaii DOH Chapter 11-41. Therefore, all projects must should have at the minimum, wipe samples collected for clearance purposes, soil samples if the work is done outdoors for clearance, ing and all workers personnel need to be certified through Hawaii Department of Health~~

~~2.3~~ Where existing ~~suspended lag-in~~ ceilings are to be temporarily removed or are to be demolished or Contractor's work involves access above existing ceilings, Consultant shall examine surfaces and debris on top of the ceiling for potentially hazardous materials. Of particular concern are existing painted concrete, wood, or steel structures above the suspended ceilings (degree of "examination" could range from visual inspection to sampling and testing by laboratory). Previous projects have found lead-containing paint debris.

3. DRAWING NOTES:

- 3.1 Drawings shall ~~also~~ indicate the location, extent, and condition of lead-~~d-based~~ containing paint to be removed or disturbed. Clearly indicate if lead-~~based~~ containing paint is to be removed to the substrate.

4. STANDARD DRAWINGS: (Not Used)

5. SPECIFICATION NOTES:

SPECIFIER'S NOTE: Insert the following requirements, 40 CFR 75 Subpart L and HAR 11-41 if the building contains lead-based paint and meets the regulations definitions of "Target Housing" or "Child-occupied Facility."

5.1 See Section 01715 – EXISTING CONDITIONS – ASBESTOS/LEAD/HAZARDOUS MATERIALS SURVEY for location of asbestos-containing materials, lead-containing paint, and other hazardous materials.

5.2 Coordination with other sections: See specification Section 13281 – REMOVAL AND DISPOSAL OF ASBESTOS CONTAINING MATERIAL, (as applicable), Section 13288 – ASBESTOS TESTING AND MONITORING, (as applicable), and Section 13289 – LEAD TESTING AND MONITORING.

5.31 ~~_____~~ — Lead Supervisor. The Contractor shall employ a person certified as a Lead Supervisor ~~personnel trained~~ in accordance with ~~[40 CFR 765.745 Subpart L, HAR 11-41.],~~ and fulfills the ~~requirements of a competent person as defined in OSHA 29CFR 1926.62, and 29 CFR 1910.1025, HIOSH 12-60, and 12-148.129CFR 1926.62 and HAR 12-148.1.~~ The Lead Supervisor shall perform the following:

5.42 Contractor shall comply with the following:

5.421.1 Certify training as meeting all applicable federal, state, and local requirements.

5.421.2 Review and approve lead-~~based~~ containing paint ~~control measures~~ disturbance/removal plan for conformance with applicable standards.

5.421.3 Provide the proper notifications to the Contracting Officer, Hawaii State Department of Health, and ~~the EPA~~ other agencies as required prior to starting work.

5.421.4 Continuously inspect lead-~~based~~ containing paint removal work for conformance with the approved work plan and specifications. Prepare a daily log of all lead ~~disturbance~~ disturbance/removal work done.

5.421.5 Perform personal air ~~and wipe sampling~~ monitoring for Contractor and subcontractor workers exposed to the existing lead-containing paint hazard.

5.421.6 Control work to prevent hazardous exposure to human beings and to the environment ~~at all times~~.

5.421.7 Collect required submittals.

5.421.8 Compile the ~~Lead-Paint Control Measures~~ Abatement Report.

SPECIFIER'S NOTE: Do not specify condition of paint. Have Contractor be responsible for quantity, condition and location of peeling, spalling paint.

5.32 — Specify the location (doors, windows, walls, ceilings, floors, piping or building materials), extent (specific surfaces or components) and condition (intact, flaking, chalking, alligatored, chipped, peeling) of lead-based containing paint to be removed or disturbed.

5.43 — Submittals Submittals:

5.543.1 Testing Laboratory Qualifications: Name, address, and telephone number of testing laboratory selected to perform the analysis from personal air sampling, wipe, and soil sampling, testing, and reporting of airborne concentrations of lead. Use a laboratory accredited under the EPA National Lead Laboratory Accreditation Program (NLLAP) by either the American Association for Laboratory Accreditation (AALA) or the American Industrial Hygiene Association (AIHA) and that is successfully participating in the Environmental Lead Proficiency Analytical Testing (ELPAT) program to perform sample analysis.

5.543.2 Lead Supervisor documentation/Competent Person: —Submit documentation that Lead Supervisor/Competent person is certified in accordance with 40 CFR 7465 Subpart L and HARawaii DOH Chapter 11-41, OSHA 29 CFR 1926.62, 29 CFR 1910.1025 and HIOSH 12-60.

5.543.3 Training Certification: Submit documentation for each employee that they are certified in accordance with 40 CFR 7465 Subpart L, and HARawaii DOH Chapter 11-41, 29 CFR 1926.62, 29 CFR 1910.1025 and HIOSH 12-60 and HAR 12-148.1.

5.5.4 Medical Clearances: Submit current (within one year from the date of submittal) completed and signed medical evaluation forms for all employees or agents who may be exposed to airborne lead. These forms shall indicate that the individual has received OSHA medical monitoring or had such monitoring made available to them as required in 29CFR1910.1025 and HIOSH 11-148.1.

5.543.54 Lead-based containing Paint Disturbance/Removal Plan: Include "Written Compliance Program" required by 29 CFR 1926.62 (e) (2), and "Occupant Protection Plan" required by 40 CFR 7465 Subpart L and HAR 11-41 as part of this plan.

5.543.65 Environmental Personal Sampling Results: Submit sampling results to the Contracting Officer within 3-1 working days of collection, signed by the testing laboratory responsible official, the employee that performed the sampling, and the Lead Supervisor.

5.543.76 Product data and Manufacturers/Manufacturer's Instructions for all equipment and materials used.

5.543.87 Rental Equipment Notification: If rental equipment is to be used during lead-based containing paint handling, notify the rental agency in writing concerning the intended use of the equipment. Furnish a copy to the Contracting Officer.

5.543.98 Submit applicable Material Safety Data Sheets for all chemicals used in paint removal work. Use the least toxic product approved by the Contracting Officer.

5.543.109 Daily log of all lead disturbance work done.

5.543.110 Hazardous Waste Management Plan (if hazardous waste is generated):

- 5.543.110.1** Identification and classification of hazardous wastes associated with the work.
- 5.543.110.2** EPA Generator Identification Number for the site.
- 5.543.110.3** Estimated quantities of wastes to be generated and disposed of.
- 5.543.110.4** EPA Transporter Identification Numbers, names, and qualifications of each contractor that will be transporting, storing, treating, and disposing of the wastes.
- 5.543.110.5** Names and qualifications (experience and training) of personnel who will be working on-site with hazardous wastes.
- 5.543.110.6** List of waste handling equipment to be used in performing the work, to include cleaning, volume reduction, and transport equipment.
- 5.543.110.7** Spill prevention, containment, and cleanup contingency measures including a health and safety plan.
- 5.543.110.8** Work plan and schedule for waste containment, removal, and disposal. Wastes shall be cleaned up and containerized daily.

SPECIFIER'S NOTE: If the quantity or locations of the existing lead-containing paint to be removed is unknown, consider adding as a Variable Quantity Unit Price item and include SECTION 01270 – VARIABLE QUANTITY UNIT PRICES and applicable inserts to the Sealed Bid Form.

~~**5.43.10.9** Unit cost for hazardous waste disposal according to this plan.~~

5.543.124 Hazardous Waste Disposal Documentation. If hazardous waste is being disposed of, submit written evidence that the hazardous waste treatment, storage, or disposal facility is approved for lead disposal by the EPA and State or local regulatory agencies. Submit one copy of the completed manifest, signed and dated by the initial transporter in accordance with 40 CFR 262.

~~**5.543.132** Dump receipts from landfill operator.~~

5.543.143 The Contractor shall complete the Hazardous Waste Disposal Log and the Project Hazardous Waste Log for each site. See Appendix A and Appendix B of this Section for the format of these logs.

5.543.154 Provide copy of the contract plans and specifications to the User Agency for record keeping purposes.

~~**5.54.5.6** Lead Control Area Requirements:~~

5.545.6.1. If lead-based-containing paint will be removed by means which will not likely create airborne, lead-containing dust (such as careful wet scraping or chemical stripping), establish a lead control area by situating critical barriers and physical boundaries around the area or structure where lead-based-containing paint removal operations will be performed.

5.545.6.2. If the removal practice will create airborne dust, create a full containment with critical barriers, HEPA filtered exhaust, negative pressure enclosure, and decontamination facilities.

~~5.545.6.3.~~ Vent local exhaust outside the building, only and away from building ventilation intakes and away from where occupants and the general public may pass through or occupy.

~~5.545.6.4.~~ Lead control area should ~~must~~ ensure airborne lead levels are below OSHA's action level and HDOH's hazard levels outside the work area.

~~5.765~~ Heating, Ventilation, and Air Conditioning Systems that supply, exhaust, or pass through the lead control area should ~~shall~~ be shut down, locked/tagged out, and isolated.

~~5.876~~ Surfaces and equipment that won't be ~~Painted not to be disturbed~~ disturbed shall be covered with polyethylene (plastic) during lead paint disturbance. After work is completed, repair all damage from fastening and sealing and remove all residual adhesive from surfaces.

~~5.987~~ Environmental Personal Air Sampling During Paint Removal Work:- The ~~Contractor/Consultant~~ hired air monitoring firm by the State or Lead Supervisor shall conduct area personal air sampling daily, on their personnel, on each shift in which lead-based containing paint removal operations are performed, and in areas immediately adjacent to the lead control area. Sufficient area personal air monitoring shall be conducted to ensure unprotected personnel are not exposed at or above the OSHA's action level and HDOH's hazard levels. If the action level is reached, stop work immediately and correct conditions causing the high levels. Resume work only after approval of the Lead Supervisor ~~Contractor and the Contracting Officer.~~

~~Cost of retesting shall be borne by the Contractor. For outdoor operations, at least one sample on each shift shall be taken on the downwind side of the lead control area. The consultant/Contractor/Consultant/ Contractor shall determine the location and number of samples taken.~~

~~5.1098~~ Hazardous and non-hazardous waste shall be segregated as much as feasible. The Contractor shall be responsible for all testing and waste disposal of waste including hazardous waste which has been determined by the 8 RCRA metals TCLP testing in accordance with 40 CFR 260 to 268 within 90 days from the waste creation. No additional compensation will be made for waste disposal.

SPECIFIER'S NOTE: Consultant shall verify current threshold limits for wastewater disposal for the applicable County at time of design.

~~5.11409~~ Wastewater shall be sampled to determine whether the wastewater can be disposed of in the County sanitary sewer system. Wastewater shall not be disposed of in storm drain or dumped on ground regardless of test results.

~~5.1240~~ Payment for disposal of hazardous waste will not be made until a signed copy of the manifest from the treatment or disposal facility certifying the amount of lead-containing materials delivered is returned and a copy is furnished to the Contracting Officer.

~~5.11~~ Clearance <Wipe/Soil> Sampling (as applicable). ~~Shall be performed as described in 40 CFR 745 Subpart L and HAR 11-41 by the Lead Supervisor/Contractor/State's Qualified Consultant. All additional cleaning and retesting resulting from elevated lead results shall be done at no additional cost to the State.~~

~~5.132~~ Abatement Report: Contractor shall submit An abatement report to the Contracting Officer. ~~shall be submitted~~ as required by 40 CFR 745 Subpart L. ~~In addition to the requirements in 40 CFR 745 Subpart L and HAR 11-41, T~~ the Abatement Report shall include all items listed under Submittals (Item 5.435). Minimum 23 copies shall be

submitted (1 each for user agency, project file, ~~Quality Control Branch~~ Technical Services Office). Final payment shall not be made until this document is furnished.

5.14 Execution:

5.14.1 Refer to SECTION 13289 – LEAD TESTING AND MONITORING for testing and monitoring requirements.

5.14.2 Commencement of Work:

- A. Under no circumstances shall lead-containing paint be disturbed without the authorization of the Contracting Officer and the Project Monitor. Liquidated damages shall be incurred for each day that lead paint was disturbed without the authorization of the Contracting Officer.
- B. Provide at least 10 working days of notice when work is scheduled to start to the Contracting Officer and the Project Monitor.

5.14.3 Potential Lead Hazard:

- A. The disturbance or dislocation of lead-containing paint and materials 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 and Authorized Visitors who will be at the job site of the seriousness of the hazard and of proper work procedures that 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 and settled lead dust. Such measures shall include the procedures and methods described in the regulations of applicable Federal, State and Local agencies.

5.14.4 Lead-Containing Materials:

- A. All Federal, State and Local personnel requirements apply in the handling of the lead-containing material regardless of the amount of lead present.
- B. Assume all dust that exists before, during and after the lead work inside and around the "lead controlled" area contains lead.

5.14.5 Work Area Preparation:

- A. Area Requirements: During work outdoors, industry standard dust control methods shall be used to control dust. Prevent contamination spreading to the surrounding uncontaminated area. Work shall not be allowed if winds are able to disperse dust beyond the lead control barriers.
- B. Barriers: Use standard barriers such as construction warning tape, fencing, dust screens, etc. to prevent the general public access to the work site. Place barriers at a minimum of 20 feet from the lead work area (as applicable). Post warning signs in compliance with 29 CFR 1926.62 at all sides of the work area.
- C. Work Area Requirements:
 - 1. Close and critically seal all windows, doors and other penetrations of any buildings, including within the building, in the immediate vicinity of the removal work to prevent lead dust and debris from contaminating surfaces not included in the building renovation.
 - 2. Provide warning barriers around the work area.
 - 3. Provide protective dust cover to surfaces not to be removed (as necessary).
 - 4. Install vertical barriers if necessary to prevent dust leaving the work area.
 - 5. All lead-containing material, debris and waste shall be cleaned up and containerized daily prior to leaving the site.
 - 6. At the completion of the project, clean up all visible paint chips, dust and debris

from the work area and beyond

5.14.6 Work Procedure:

- A. Perform all work in compliance with all Federal, State and Local regulations including but not limited to OSHA 29 CFR 1926.62.
- B. Allow only lead trained and protected persons to disturb lead painted surfaces and monitoring work for this project.
- C. Wear personal protective equipment such as half face respirators with P-100 filters, disposable ~~entire whole~~ body coveralls, gloves, eye-protection, footwear and hardhats at all times.
- D. Establish the Lead Control Area by installing warning tape, signs and barriers.
- E. Contain any dust and debris generated and clean up any dust and debris on the floor promptly.
- F. Assume sole responsibility for ensuring that no "visible emissions" including debris on the ground are released beyond the designated regulated area. Stop work immediately if visible dust and debris is emitted.
- G. Do not create airborne dust.
- H. Do not dry scrape paint.
- I. Do not use power tools to remove paint without proper HEPA attachment.
- J. Do not use chemical strippers that contain methylene chloride.
- K. Clean all surfaces within the designated clean up area using HEPA vacuum and wet cleaning techniques.
- L. Separate waste into potentially non-hazardous waste such as full body suits, gloves, etc. and potentially hazardous waste such as paint chips, sludge, etc. Cleanup and containerize all visible lead paint chips and debris at the end of each workday and if waste is not removed daily, store waste on-site in a secured container or area. Ensure that all waste from the project is removed from the site at the completion of the project.
- M. Final visual clearance will be conducted by the Project Monitor. Reclean as required by the Project Monitor at no cost to the Contracting Officer until the final visual clearance is accepted in SECTION 13289 – LEAD TESTING AND MONITORING.

5.14.7 Payment: Payment for disposal of hazardous waste will not be made until a signed copy of the manifest from the treatment or disposal facility certifying the amount of lead-containing materials delivered is returned and a copy is furnished to the Contracting Officer. Final payment will be made to the Contractor only when copies of testing, manifests and dump receipts are received by the Contracting Officer.

6. GUIDE SPECIFICATION: (Not Used)

TG 13282 APPENDIX A

HAZARDOUS WASTE DISPOSAL LOG

Name of Facility
Street Address
City, State, Zip

MONTH/YEAR	DESCRIPTION OF HAZARDOUS WASTE	APPROXIMATE WEIGHT IN POUNDS	SPECIAL HANDLING

TG 13282 APPENDIX B

PROJECT HAZARDOUS WASTE LOG
(Contractor to complete one per site)

PROJECT:

D.A.G.S. JOB

NO.:

START DATE: _____ COMPLETION DATE: _____

GENERAL CONTRACTOR:

ADDRESS:

TELEPHONE: _____ FAX NUMBER: _____

NAME OF SUPERINTENDENT FOR THIS PROJECT: _____

NAME OF GENERATOR (FACILITY):

ADDRESS:

TELEPHONE: _____ FAX NUMBER: _____

DESCRIPTION OF HAZARDOUS WASTE:

APPROXIMATE WEIGHT (IN POUNDS): _____

MONTHLY DISPOSAL LOG:

MONTH: _____ WEIGHT IN POUNDS: _____

MONTH: _____ WEIGHT IN POUNDS: _____

MONTH: _____ WEIGHT IN POUNDS: _____

DISPOSAL SITE:

CONTRACTOR DISPOSING OF HAZARDOUS WASTE: _____

ADDRESS:

TELEPHONE: _____ FAX NUMBER: _____

DISPOSAL CONTRACTOR IS A (CHECK ONE OF THE FOLLOWING):

CONDITIONALLY EXEMPT SMALL QUANTITY GENERATOR _____

SMALL GENERATOR

LARGE GENERATOR

.....
APPROVAL:

STATE DESIGNATED COMPETENT PERSON: _____

_____ **COMPANY:**

_____ **ADDRESS:**

_____ **TELEPHONE NUMBER:**

_____ **SIGNATURE** _____ **DATE**