**SECTION 02 83 00**

**REMOVAL AND DISPOSAL OF LEAD-CONTAINING PAINT**

**PART 1 GENERAL**

* + - 1. **GENERAL**
				1. Description of Work

This specification covers the removal and disposal of lead-based paint (LBP) or lead-containing paint (LCP). Products shall be as follows or as directed by DASNY. Demolition and removal of materials shall be as required to support the work.

This lead removal project will consist of the removal and disposal of LBP at XXX (Name of facility, building ID(s), address, project name and number).

The work shall include but not be limited to the removal of the following materials:

|  |  |  |  |
| --- | --- | --- | --- |
| Floor/level and work area number | Description of LBP Material | Approximate Quantity(SF/LF/Unit) | Removal Method(s) |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

* + - * 1. Definitions

Action Level: Employee exposure, without regard to use of respirators, to an airborne concentration of lead of 30 micrograms per cubic meter (μg/m3) of air averaged over an eight-hour period in an occupational/industrial environment.

Area Sampling: Sampling of lead concentrations within the lead control area and inside the physical boundaries, which is representative of the airborne lead concentrations but is not collected in the breathing zone of personnel. This sampling will be conducted by DASNY’s Third-Party Consultant, if required.

Certified Contractors/Firms and Renovators: Certified Contractors/Firms under 40 CFR 745.226 and 745.89(d) and Certified Renovators under 40 CFR 745.90(b) to inspect, assess or remove LBP, dust or soil. Certification as required to provide notification to the United States Environmental Protection Agency (EPA) prior to the commencement of LBP abatement activities in residential dwellings and child occupied facilities.

Contaminated Room: Room for removal of contaminated personal protective equipment (PPE).

Decontamination Shower Facility: That facility that encompasses a clean clothing storage room, and a contaminated clothing storage and disposal rooms, with a shower facility in between.

Eight-Hour Time Weighted Average (TWA): Airborne concentration of lead to which an employee is exposed, averaged over an eight-hour workday as indicated in 29 CFR 1926.62.

EPA Notification: The certified contractor shall notify the EPA at least five business days prior to conducting LBP abatement in residential or child occupied facilities. The notification requirements for updating and canceling projects shall also be completed as required.

High Efficiency Particulate Air (HEPA) Filter Equipment: HEPA filtered vacuuming equipment with a UL 586 filter system capable of collecting and retaining lead-containing paint (LCP) dust. A high efficiency particulate filter means 99.97 percent efficient against 0.3 micron or larger size particles.

Lead: Metallic lead, inorganic lead compounds, and organic lead soaps.

Lead-Based Paint (LBP): Paint or other surface coating that contains lead in excess of 1.0 milligrams per centimeter squared or 0.5 percent by weight.

Lead-Based Paint Hazard (LBP Hazard): Any condition that causes exposure to lead from lead-contaminated dust, lead-contaminated soil, LBP that is deteriorated or present in accessible surfaces, friction surfaces, or impact surfaces that would result in adverse human health effects.

Lead-Containing Paint (LCP): LBP or other similar surface coating containing lead or lead compound in excess of 0.06 percent by weight of the total nonvolatile content of the paint.

Lead Control Area: An enclosed area or structure, constructed as a temporary containment equipped with HEPA filtered local exhaust, which prevents the spread of lead dust, paint chips, or debris existing as a condition of LBP removal operations. The lead control area is also isolated by physical boundaries to prevent unauthorized entry of personnel.

Lead Permissible Exposure Limit (PEL): Fifty μg/m3 of air as an eight-hour TWA as determined by 29 CFR 1926.62. If an employee is exposed for more than eight hours in a workday, the PEL shall be determined by the following formula: PEL (micrograms/cubic meter of air) = 400/number of hours worked per day.

Personal Sampling: Sampling of airborne lead concentrations within the breathing zone of an employee to determine the eight-hour TWA concentration in accordance with 29 CFR 1926.62. Samples shall be representative of the employees' work tasks. The sampling, conducted by the Contractor, shall provide information to complete the required exposure assessment to identify the level of exposure a worker would be subject to without respiratory protection. Whenever there has been a change of equipment, process, control, personnel or a new task has been initiated, the Contractor shall conduct additional personal sampling.

Physical Boundary: Area physically roped or partitioned off around an enclosed lead control area to limit unauthorized entry of personnel. As used in this section, "inside boundary" shall mean the same as "outside lead control area but inside boundary."

Project Supervisor (PS): As used in this section, refers to a person employed by the Contractor who is trained and certified in the recognition and control of lead hazards in accordance with current federal, State, and local regulations. The PS shall be trained and certified to inspect, assess or remove LBP, dust or soil.

Third-Party Consultant: DASNY will provide a Third-Party Consultant to provide pre-work assessments, project monitoring assessments for the work area and surrounding areas, final clearance assessments, and waste shipment sampling/inspection.

Worker certifications: All workers inspecting, assessing, or removing LBP, dust or soil who are trained and certified to conduct these activities. As per 40 CFR Part 745 and 29 CFR 1926.

* + - * 1. Pre-Work Submittals: Within 7 days prior to the pre-construction conference, the Contractor shall submit electronic copies of the documents listed below, with 1 copy going directly to the DASNY Project Management, 1 Copy to the DASNY Code Compliance Unit and 1 copy going directly to the environmental consultant for review and approval prior to the commencement of lead removal activities:

Certificates

Certifications of Project Supervisor and Contractor.

Testing laboratory qualifications.

Contractor qualifications – Firm/Supervisor/Renovator/Worker.

NYS Department of Environmental Conservation Waste Transporter Permit.

EPA approved hazardous waste treatment or disposal facility permit for lead disposal.

Letter of acknowledgement from waste treatment or disposal facility.

EPA Notification of Lead-Based Paint Abatement Activities (Appendix C) with proof of transmittal (i.e. certified mail return receipt).

Lead-Based Paint/Lead-Containing Paint Removal Plan (LBP/LCPRP) including PS approval (signature, date, and certification number):

All Work Areas/containments numbered sequentially.

Location of water and electrical connections to building services.

Waste transport routes through the building to the waste storage container.

The job specific plan for the work procedures to be utilized.

The job specific plan for worker protection issues regarding personal protective equipment, the work procedures, and exposure assessment procedures.

The job specific plan for protecting the work area, ventilation and drainage systems.

Collected waste water disposal.

Paint debris disposal plan (hazardous and non-hazardous waste).

Containment design

1. The containment design proposed for use during surface preparation and cleanup activities as required to perform the work. The Plan for staging, installing, moving and removing the containment. Include all data, calculations and assumptions used for the design of the containment and ventilation system to ensure that airborne lead concentrations of 30 μg/m3 of air and baseline lead dust/soil concentrations are not reached or exceeded outside of the lead control area
2. Methods to be used to verify adequate air flow characteristics and negative pressure within containment
3. The plan for staging and storing any waste material
4. The plan for establishing barriers to control access of personnel within the exposure zones.

Compliance Plan

Schedule and work area drawing

Waste Transporter Permit

Waste Profile Sheet

Waste Disposal Logs

Final Clearance Evaluation – Provide written procedures identifying the methods that will be used to conduct final project cleanup and the final cleanliness inspections and evaluations that will be undertaken in compliance with the project requirements.

* + - * 1. On-Site Submittals:

All submittals, documentation, and postings required to be maintained on-site during abatement activities.

Copy of “approved” pre-work submittal package, removal plan and compliance plan

Employee training certifications

Certification of medical examinations

Respirator Fit Test documentation

Manufacturer's Instructions

Chemicals and equipment

Materials

Safety data sheets for all chemicals

List of emergency telephone numbers.

EPA Notification of Lead-Based Paint Abatement Activities (Appendix C).

* + - * 1. Project Close-out Submittals:

Within 30 days of the completion of each abatement phase, the Contractor shall submit one electronic copy of the documents listed below to DASNY Code Compliance and one copy to the environmental consultant for review and approval prior to Contractor’s final payment. Once DASNY Code Compliance approves the close-out submittal, the Contractor shall provide three sets of the approved close-out documents (double-sided and bound) to DASNY Project Management, including one set to be distributed to the facility.

a. All waste disposal shipment records/manifest and disposal logs (Appendix A). Original waste shipment records shall be sent to DASNY Code Compliance. When DASNY is not the owner, send the original to the owner and a fully executed “copy” to DASNY Code Compliance.

b. Daily progress log, including the entry/exit log.

c. Provide the Contractor’s Acknowledgement Statement (Appendix B) that lists all Workers used in the performance of the Project, including name and US EPA certification number. The Statement shall be notarized (Original notarized statement shall be sent to DASNY Code Compliance).

d. Disposal Site/Landfill Permit from applicable regulatory agency.

* + - * 1. Pre-Construction Conference

1. Contractor's scope of Work, Work plan, and schedule to include number of workers and shifts.

2. Contractor's safety and health precautions including protective clothing and equipment and decontamination procedures.

3. Environmental Consultant's duties, functions, and authority.

4. Contractor's Work procedures including:

a. Methods of job site preparation and removal methods.

b. Respiratory protection.

c. Disposal procedures.

d. Cleanup procedures.

e. Fire exits and emergency procedures.

5. Contractor’s required pre-work and on-site submittals, documentation, and postings.

6. Contractor's plan for twenty-four (24) hour Project security both for prevention of theft and for barring entry of unauthorized personnel into Work Areas.

7. Temporary utilities.

8. Handling of furniture and other moveable objects.

9. Storage of removed lead containing materials.

10. Waste disposal requirements and procedures, including use of the Owner supplied waste shipment record.

* + - * 1. Qualifications Of PS: Submit name, address, telephone number and the EPA certification number of the PS selected to perform responsibilities specified in paragraph entitled "Project Supervisor (PS) Responsibilities." Provide at least two years of previous experience with LBP abatement projects. Submit proper documentation that the PS is trained and certified in accordance with federal, State, and local laws.
				2. Certified Firm/Contractor Qualifications: Firms/Contractors that perform renovations for compensation must apply to EPA for certification to perform renovations or dust sampling. A firm must submit to EPA a completed “Application for Firms,” signed by an authorized agent of the firm, and pay at least the correct amount of fees. Firms performing renovations must ensure that:
	1. All individuals performing renovation activities on behalf of the firm are either certified renovators or have been trained by a certified renovator in accordance with 40 CFR 745.90.
	2. A certified renovator is assigned to each renovation performed by the firm and discharges all of the certified renovator responsibilities identified in 40 CFR 745.90.
	3. All renovations performed by the firm are performed in accordance with the work practice standards in 40 CFR 745.85.
	4. The pre-renovation education requirements of 40 CFR 745.84 have been performed.
	5. The recordkeeping requirements of 40 CFR 745.86 are met.
		+ - 1. Certified Renovator and Dust Sampling Technician Qualifications: Renovators and dust sampling technicians must be certified by EPA. Certification requires that individuals must successfully complete the appropriate course accredited by EPA under 40 CFR 745.225 or by a State or Tribal program that is authorized by EPA. EPA renovator certification allows the certified individual to perform renovations and EPA renovator certification allows the certified individual to perform renovations. Certified renovators must ensure compliance with EPA 40 CFR 745 and perform or direct those that perform all renovation tasks. Certified renovators must also:

Provide training to workers on the work practices required by 40 CFR 745.85(a) that they will be using in performing their assigned tasks.

Be physically present at the work site when required signs are posted, while the work area containment is being established, and while the work area cleaning is performed.

Regularly direct work being performed by other individuals to ensure that the work practices required are being followed, including maintaining the integrity of the containment barriers and ensuring that dust or debris does not spread beyond the work area.

Be available, either on-site or by telephone, at all times that renovations are being conducted.

Use an acceptable test kit to determine whether components to be affected by the renovation contain lead-based paint when requested by the party contracting for renovation services.

Have with them at the work site copies of their initial course completion certificate and their most recent refresher course completion certificate.

Prepare records required by 40 CFR 745.86(b)(1)(ii) and (6).

* + - * 1. Testing Laboratory: Submit the name, address, and telephone number of the testing laboratory selected to perform the air sampling and disposal testing. The air sampling results shall be utilized for reporting of airborne concentrations of lead for Contractor worker protection issues. This sampling will be separate from the Third-Party Consultant sampling that will be conducted by DASNY. Use a laboratory accredited under the EPA National Lead Laboratory Accreditation Program (NLLAP) by either the American Association for Laboratory Accreditation (A2LA) 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.
				2. Lead-Based Paint/Lead-Containing Paint Removal Plan (LBP/LCPRP): Information to also be included in the LBP/LCPRP not indicated in Section 1.1,C 5 & 6 shall include but not be limited to the following items. The plan shall include a sketch showing the location, size, and details of lead control areas, location and details of the decontamination facilities. Include in the plan, eating, drinking, smoking and sanitary procedures, interface of trades and sequencing of lead related work. Include site preparation and cleanup procedures. Include occupational and environmental sampling (if any by the Contractor), frequency and duration of sampling.
				3. Occupational and Environmental Sampling Results: Submit occupational and environmental sampling results to DASNY within three working days of collection, signed by the testing laboratory responsible official, the employee that performed the sampling, and the PS.

The sampling results shall represent each job classification, or if working conditions are similar to previous jobs by the same employer, provide previously collected exposure data that can be used to estimate worker exposures in accordance with 29 CFR 1926.62. The data shall represent the worker's regular daily exposure to lead.

Submit worker exposure data conducted during the task based trigger operations of 29 CFR 1926.62.

The initial monitoring shall determine the requirements for further monitoring and the need to fully implement the control and protective requirements including the compliance program (LBP/LCP) in accordance with 29 CFR 1926.62.

* + - * 1. Occupational and Environmental Assessment Data Report:

Some LBP/LCP removal work may not require full implementation of the requirements of 29 CFR 1926.62. Based on the experience of the Contractor and/or the use of a specific process or method for performing the work, the Contractor may be able to provide historic data (previous 12 months) to demonstrate that airborne exposures are controlled below the action level. Such methods or controls shall be fully presented in the LBP/LCPRP. To reduce the full implementation of 29 CFR 1926.62, the Contractor shall provide documentation in an Assessment Data Report.

Submit occupational and environmental assessment report to DASNY prior to start of work, signed by the testing laboratory responsible official, and the PS.

Submit a report that supports the determination regarding the reduction of the need to fully implement the requirements of 29 CFR 1926.62 and supporting the LBP/LCP. The exposure assessment shall represent each job classification, or if working conditions are similar to previous jobs by the same employer, provide previously collected exposure data that can be used to estimate worker exposures in accordance with 29 CFR 1926.62. The data shall represent the worker's regular daily exposure to lead for stated work.

Submit worker exposure data conducted during the task based trigger operations of 29 CFR 1926.62 with a complete process description in supporting a negative assessment.

The initial assessment shall determine the requirement for further monitoring and the need to fully implement the control and protective requirements including the compliance program (LBP/LCPRP) in accordance with 29 CFR 1926.62.

* + - * 1. Quality Assurance

Medical Examinations: Initial medical surveillance as required by 29 CFR 1926.62 shall be made available to all employees exposed to lead at any time (one day) above the action level. Full medical surveillance shall be made available to all employees on an annual basis who are or may be exposed to lead in excess of the action level for more than 30 days a year or as required by 29 CFR 1926.62. Adequate records shall show that employees meet the medical surveillance requirements of 29 CFR 1926.33, 29 CFR 1926.62, and 29 CFR 1926.103.

Medical Records: Maintain complete and accurate medical records of employees for a period of at least 30 years or for the duration of employment plus 30 years, whichever is longer.

Medical Surveillance: Provide medical surveillance to all personnel exposed to lead as indicated in 29 CFR 1926.62.

Project Supervisor (PS) Responsibilities

Certify training as meeting all federal, State, and local requirements.

Review and approve LBP/LCPRP for conformance to the applicable referenced standards.

Continuously inspect LBP removal work for conformance with the approved plan.

Perform air sampling, if required by Contractor.

Ensure work is performed in strict accordance with specifications at all times.

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

Certify the conditions of the work as called for elsewhere in this specification.

Training: Train each employee performing inspection, assessing, paint removal, disposal, and air sampling operations prior to the time of initial job assignment and annually thereafter, in accordance with 40 CFR 745.225, 29 CFR 1926.21, 29 CFR 1926.62, and State and local regulations.

Training Certification: Submit a certificate for each employee, signed and dated by the approved training source, stating that the employee has received the required lead training.

Respiratory Protection Program

Furnish each employee required to wear a negative pressure respirator or other appropriate type with a respirator fit test at the time of initial fitting and at least annually thereafter as required by 29 CFR 1926.62.

Establish and implement a respiratory protection program as required by ANSI Z88.2, 29 CFR 1926.103, 29 CFR 1926.62, and 29 CFR 1926.55.

Hazard Communication Program: Establish and implement a Hazard Communication Program as required by 29 CFR 1926.59.

Hazardous Waste Management: The Hazardous Waste Management Plan shall comply with applicable requirements of federal, State, and local hazardous waste regulations and address:

Identification and classification of hazardous wastes associated with the work.

Estimated quantities of wastes to be generated and disposed of.

Names and qualifications of each Contractor that will be transporting, storing, treating and/or disposing of the wastes. Include the facility location and operator and a 24-hour point of contact. Furnish two copies of EPA, or State and local hazardous waste permit applications or permits or manifests, as required, and co-ordinate with DASNY regarding the use of an existing EPA Identification number or developing separate EPA Identification numbers.

Names, qualifications and training (experience and training) of personnel who will be working on-site with hazardous wastes.

List of waste handling equipment to be used in performing the work, to include cleaning, volume reduction, and transport equipment.

Spill prevention, containment, and cleanup contingency measures including a health and safety plan to be implemented in accordance with 29 CFR 1926.65.

Work plan and schedule for waste containment, removal and disposal. Wastes shall be cleaned up and containerized daily.

Unit cost for hazardous waste disposal according to this plan.

Environmental, Safety and Health Compliance: In addition to the detailed requirements of this specification, comply with laws, ordinances, rules, and regulations of Federal, State, and local authorities regarding removing, handling, storing, transporting, and disposing of lead waste materials. Comply with the applicable requirements of the current issue of 40 CFR Part 745 and 29 CFR 1926.62. Submit matters regarding interpretation of standards to DASNY for resolution before starting work. Where specification requirements and the referenced documents vary, the most stringent requirement shall apply.

Pre-Construction Conference: Along with the PS, meet with DASNY and any facility or consultant representatives to discuss in detail the hazardous waste management plan and the LBP/LCPRP, including work procedures and precautions for the removal plan.

* + - * 1. Equipment

Respirators: Furnish appropriate respirators approved by the National Institute for Occupational Safety and Health (NIOSH), Department of Health and Human Services, for use in atmospheres containing lead dust. Respirators shall comply with the requirements of 29 CFR 1926.62.

Special Protective Clothing: Furnish personnel who will be exposed to lead-contaminated dust with proper disposable uncontaminated, reusable protective whole-body clothing, head covering, gloves, and foot coverings as required by 29 CFR 1926.62. Furnish proper disposable plastic or rubber gloves to protect hands. Reduce the level of protection only after obtaining approval from the PS.

Vacuum Filters: UL 586 labeled HEPA filters.

Equipment for Owner’s Personnel: Furnish DASNY with two complete sets of personal protective equipment (PPE) daily, as required herein, for entry into and inspection of the paint removal work within the lead controlled area. PPE shall include disposable whole-body covering, including appropriate foot, head, and hand protection. PPE shall remain the property of the Contractor. The Owner will provide respiratory protection for DASNY and their representatives.

* + - * 1. Removal

Title to Materials: Materials resulting from demolition work, except as specified otherwise, shall become the property of the Contractor and shall be disposed of in accordance with all federal, State and local regulations.

* + - 1. **PRODUCT**
				1. Chemicals: Submit applicable Material Safety Data Sheets for all chemicals used in paint removal work. Use the least toxic product approved by DASNY.
			2. **EXECUTION**
				1. Protection

Notification: Notify DASNY 20 days prior to the start of any LBP removal work.

Notification: Notify the EPA at least 5 days prior to conducting LBP abatement activities in a residential dwelling or child occupied facility.

Notification: Distribute notification to owner(s) and resident(s) according to EPA RRP rule 40 CFR 745, Subpart E Section 745.84 Information distribution requirements.

Occupant protection: Firms must post signs clearly defining the work area and warning occupants and other persons not involved in renovation activities to remain outside of the work area. To the extent practicable, these signs must be in the primary language of the occupants. These signs must be posted before beginning the renovation and must remain in place and readable until the renovation and the post-renovation cleaning verification have been completed. If warning signs have been posted in accordance with 24 CFR 35.1345(b)(2) or 29 CFR 1926.62(m), additional signs are not required by this section.

Third-Party Oversight

Full-time third-party oversight is required for all lead-based paint removals.

Lead Control Area Requirements– Interior Renovations

Before beginning the renovation, the firm must isolate the work area so that no dust or debris leaves the work area while the renovation is being performed. In addition, the firm must maintain the integrity of the containment by ensuring that any plastic or other impermeable materials are not torn or displaced, and taking any other steps necessary to ensure that no dust or debris leaves the work area while the renovation is being performed. The firm must also ensure that containment is installed in such a manner that it does not interfere with occupant and worker egress in an emergency.

Before beginning the renovation, the firm must:

1. Remove all objects from the work area, including furniture, rugs, and window coverings, or cover them with plastic sheeting or other impermeable material with all seams and edges taped or otherwise sealed.
2. Close and cover all ducts opening in the work area with taped-down plastic sheeting or other impermeable material.
3. Close windows and doors in the work area. Doors must be covered with plastic sheeting or other impermeable material. Doors used as an entrance to the work area must be covered with plastic sheeting or other impermeable material in a manner that allows workers to pass through while confining dust and debris to the work area.
4. Cover the floor surface, including installed carpet, with taped-down plastic sheeting or other impermeable material in the work area 6 feet beyond the perimeter of surfaces undergoing renovation or a sufficient distance to contain the dust, whichever is greater. Floor containment measures may stop at the edge of the vertical barrier when using a vertical containment system consisting of impermeable barriers that extend from the floor to the ceiling and are tightly sealed at joints with the floor, ceiling and walls.
5. Use precautions to ensure that all personnel, tools, and other items, including the exteriors of containers of waste, are free of dust and debris before leaving the work area.

Lead Control Area Requirements – Exterior Renovations

Before beginning the renovation, the firm must

Close all doors and windows within 20 feet of the renovation. On multi-story buildings, close all doors and windows within 20 feet of the renovation on the same floor as the renovation, and close all doors and windows on all floors below that are the same horizontal distance from the renovation.

Ensure that doors within the work area that will be used while the job is being performed are covered with plastic sheeting or other impermeable material in a manner that allows workers to pass through while confining dust and debris to the work area.

Cover the ground with plastic sheeting or other disposable impermeable material extending 10 feet beyond the perimeter of surfaces undergoing renovation or a sufficient distance to collect falling paint debris, whichever is greater, unless the property line prevents 10 feet of such ground covering. Ground containment measures may stop at the edge of the vertical barrier when using a vertical containment system.

If the renovation will affect surfaces within 10 feet of the property line, the renovation firm must erect vertical containment or equivalent extra precautions in containing the work area to ensure that dust and debris from the renovation does not contaminate adjacent buildings or migrate to adjacent properties. Vertical containment or equivalent extra precautions in containing the work area may also be necessary in other situations in order to prevent contamination of other buildings, other areas of the property, or adjacent buildings or properties.

Protection of Existing Work to Remain: Perform paint removal work without damage or contamination of adjacent areas. Where existing work is damaged or contaminated, restore work to its original condition or better.

Boundary Requirements: Provide physical boundaries around the lead control area by roping off the area designated in the work plan or providing curtains, portable partitions or other enclosures to ensure that airborne concentrations of lead will not reach 30 μg/m3 of air outside of the lead control area.

Physical Boundary: Provide physical boundaries around the lead control area by roping off the area designated in the work plan or providing curtains, portable partitions or other enclosures to ensure that airborne concentrations of lead will not reach 30 μg/m3 of air outside of the lead control area.

Warning Signs: Provide warning signs at approaches to lead control areas. Locate signs at such a distance that personnel may read the sign and take the necessary precautions before entering the area. Signs shall comply with the requirements of 29 CFR 1926.62.

Furnishings:

The Owner will remove furniture and equipment from the building before LBP removal work begins.

or

Furniture and equipment will remain in the building. Protect and cover furnishings or remove furnishings from the work area and store in a location approved by DASNY.

or

Existing furniture and equipment is lead contaminated, decontaminate, dispose of as lead contaminated waste.

Heating, Ventilating and Air Conditioning (HVAC) Systems: Shut down, lock out, and isolate HVAC systems that supply, exhaust, or pass through the lead control areas. Seal intake and exhaust vents in the lead control area with 6 mil plastic sheet and tape. Seal seams in HVAC components that pass through the lead control area. Provide temporary HVAC system for areas in which HVAC has been shut down outside the lead control area.

Decontamination Shower Facility: Provide clean and contaminated change rooms and shower facilities in accordance with this specification and 29 CFR 1926.62.

Eye Wash Station: Where eyes may be exposed to injurious corrosive materials, suitable facilities for quick drenching or flushing of the eyes shall be provided within the work area.

Mechanical Ventilation System

Use adequate ventilation to control personnel exposure to lead in accordance with 29 CFR 1926.62.

To the extent feasible, use fixed local exhaust ventilation connected to HEPA filters or other collection systems, approved by the PS. Local exhaust ventilation systems shall be designed, constructed, installed, and maintained in accordance with ANSI Z9.2.

Vent local exhaust outside the building only and away from building ventilation intakes.

Use locally exhausted, power actuated, paint removal tools.

Personnel Protection: Personnel shall wear and use protective clothing and equipment as specified herein. Eating, smoking, or drinking or application of cosmetics is not permitted in the lead control area. No one will be permitted in the lead control area unless they have been appropriately trained and provided with protective equipment.

* + - * 1. Work Procedures: Perform removal and disposal of LBP in accordance with approved LBP/LCPRP. Use procedures and equipment required to limit occupational and environmental exposure to lead when LBP is removed in accordance with 29 CFR 1926.62, except as specified herein.

Personnel Exiting Procedures: Whenever personnel exit the lead-controlled area, they shall perform the following procedures and shall not leave the work place wearing any clothing or equipment worn during the work day:

Vacuum themselves off.

Remove protective clothing in the contaminated change room, and place them in an approved impermeable disposal bag.

Shower or Wash hands and face at the site, as directed, don appropriate disposable or uncontaminated reusable clothing; move to an appropriate facility; shower.

Change to clean clothes prior to leaving the physical boundary designated around the lead control area.

Sampling

Air sample for lead in accordance with 29 CFR 1926.62 and as specified herein. Air sampling shall be directed or performed by the PS.

The PS shall be on the job site directing the air sampling and inspecting the LBP removal work to ensure that the requirements of the contract have been satisfied during the entire LBP removal operation.

Collect personal air samples on employees who are anticipated to have the greatest risk of exposure as determined by the PS. In addition, collect air samples on at least 25 percent of the work crew or a minimum of two employees; whichever is greater, during each work shift.

Submit results of air samples, signed by the PS, within 24 hours after the air samples are taken. Notify DASNY immediately of exposure to lead at or in excess of the action level of 30 μg/m3 of air outside of the lead control area.

Surface and/or soil sampling shall be conducted as required for residential dwellings and child occupied facilities or as may be required for high profile, sensitive work areas, such as administrative buildings, kitchens, barracks, etc., to determine clearance (i.e., that the work has not contaminated surfaces within and adjacent to the control area) will be performed by a Third-Party Consultant provided by DASNY. Notification to DASNY will also outline any sampling requirements to be provided for the work.

Before any work begins, DASNY’s Third-Party Consultant will collect and analyze baseline soil or wipe samples in accordance with methods defined in federal, State, and local standards inside and outside of the physical boundary to assess the degree of soil and/or dust contamination prior to LBP removal activities are initiated.

After all work is completed, DASNY’s Third-Party Consultant will collect and analyze soil or wipe samples in accordance with methods defined in federal, State, and local standards inside and outside of the physical boundary to assess the degree of soil and/or dust contamination after the LBP removal activities are completed.

Area Air Sampling During Paint Removal Work: DASNY will conduct area air sampling while LBP removal operations are performed, in areas immediately adjacent to the lead control area. Area monitoring shall be conducted to ensure unprotected personnel adjacent to the lead control area are not exposed at or above 30 μg/m3 of air. If 30 μg/m3 of air is reached or exceeded, the Contractor will be advised to stop work, and correct the conditions(s) causing the increased levels. DASNY will determine if condition(s) require any further change in work methods. Removal work shall resume only after approval is given by DASNY. For outdoor operations, at least one sample on each shift shall be taken on the downwind side of the lead control area.

Lead-Based Paint Removal

Provide methodology for removing LBP/LCP in the work plan. Remove paint within the areas designated on the drawings to completely expose the substrate. Take whatever precautions necessary to minimize damage to the underlying substrate.

Avoid flash rusting or deterioration of the substrate. Coordinate surface preparations as required by DASNY.

Provide methodology for LBP/LCP removal processes to minimize contamination of work areas outside the control area with lead-contaminated dust or other lead-contaminated debris/waste and to ensure that unprotected personnel are not exposed to hazardous concentrations of lead. Describe this LBP/LCP removal process in the LBP/LCPRP.

Indoor Lead Paint Removal: Perform manual or mechanical orthermal or chemical, as directed, paint removal in lead control areas using enclosures, barriers, or containments and powered locally exhausted paint removal tools. Collect residue and/or debris for disposal in accordance with federal, State, and local requirements.

Outdoor Lead Paint Removal: Perform outdoor removal as indicated in federal, State, and local regulations and in the LBP/LCPRP. The worksite preparation (barriers or containments) shall be job dependent and presented in the LBP/LCPRP.

Component Removal (ie. windows, doors): Cover the ground surface beneath components with polyethylene sheeting. The ground cover, paint chips that have fallen onto it, and personal protective equipment shall leave the site as hazardous waste and shall not be co-mingled with components.

Sampling After Paint Removal: After the visual inspection, DASNY will conduct soil sampling if bare soil is present during external removal operations and collect area air samples inside and outside the lead control area to determine the airborne levels of lead inside and outside the work area. DASNY will collect wipe samples according to the HUD protocol contained in HUD Guidelines to determine the lead content of settled dust and dirt in micrograms per square foot (μg/ft2) of surface area and parts per million (ppm) or micrograms per gram (μg/g) for soil. Components shall be sampled for toxicity characteristic leaching procedure (TCLP) requirements prior to disposal.

Cleanup and Disposal

Cleanup: Maintain surfaces of the lead control area free of accumulations of paint chips and dust. Restrict the spread of dust and debris; keep waste from being distributed over the work area. Do not dry sweep or use compressed air to clean up the area. At the end of each shift and when the paint removal operation has been completed, clean the area of visible lead paint contamination and within two feet of the work area by vacuuming with a HEPA filtered vacuum cleaner, wet mopping the area and wet wiping the area as indicated by the PS. Re-clean areas showing dust or residual paint chips or debris. After visible dust, chips and debris are removed, wet wipe and HEPA vacuum all surfaces in the work area. Collect all paint chips and debris and, without dispersing any of it, seal this material in a heavy-duty bag. Remove protective sheeting. Mist the sheeting before folding it, fold the dirty side inward, and either tape shut to seal or seal in heavy-duty bags. Sheeting used to isolate contaminated rooms from non-contaminated rooms must remain in place until after the cleaning and removal of other sheeting. Dispose of the sheeting as waste. If adjacent areas become contaminated at any time during the work, clean, visually inspect, and then wipe sample all contaminated areas. The PS shall then certify in writing that the area has been cleaned of lead contamination before restarting work.

Clearance Certification

The Contractor shall document in writing and provide analytical documentation to certify that the employee exposure to an airborne concentration of lead were below the required action level, respiratory protection used for the employees was adequate; the work procedures were performed in accordance with 29 CFR 1926.62 and 40 CFR 745; and that there were no visible accumulations of material and dust containing lead left in the work site. Do not remove the lead control area or roped off boundary and warning signs prior to DASNY’s acknowledgement of the third-party sampling results, if required, and upon receipt of the Contractor certification.

A certified renovator must perform a visual inspection to determine whether dust, debris or residue is still present. If dust, debris or residue is present, these conditions must be removed by re-cleaning and another visual inspection must be performed.

After a successful visual inspection, the certified renovator must verify that each windowsill in the work area has been adequately cleaned. The windowsill shall be wiped with a wet disposable cleaning cloth that is damp to the touch. If the cloth matches or is lighter than the cleaning verification card, the windowsill has been adequately cleaned. If the cloth does not match and is darker than the cleaning verification card, re-clean the windowsill, then either use a new cloth or fold the used cloth in such a way that an unused surface is exposed, and wipe the surface again. If the cloth matches or is lighter than the cleaning verification card, that windowsill has been adequately cleaned. If the cloth does not match and is darker than the cleaning verification card, wait for 1 hour or until the surface has dried completely, whichever is longer. After waiting for the windowsill to dry, wipe the windowsill with a dry disposable cleaning cloth. After this wipe, the windowsill has been adequately cleaned.

Wipe uncarpeted floors and countertops within the work area with a wet disposable cleaning cloth. Floors must be wiped using an application device with a long handle and a head to which the cloth is attached. The cloth must remain damp at all times while it is being used to wipe the surface for post-renovation cleaning verification. If the surface within the work area is greater than 40 square feet, the surface within the work area must be divided into roughly equal sections that are each less than 40 square feet. Wipe each such section separately with a new wet disposable cleaning cloth. If the cloth used to wipe each section of the surface within the work area matches the cleaning verification card, the surface has been adequately cleaned. If the cloth used to wipe a particular surface section does not match the cleaning verification card, re-clean that section of the surface, then use a new wet disposable cleaning cloth to wipe that section again. If the cloth matches the cleaning verification card, that section of the surface has been adequately cleaned. If the cloth used to wipe a particular surface section does not match the cleaning verification card after the surface has been re-cleaned, wait for 1 hour or until the entire surface within the work area has dried completely, whichever is longer. After waiting for the entire surface within the work area to dry, wipe each section of the surface that has not yet achieved post-renovation cleaning verification with a dry disposable cleaning cloth. After this wipe, that section of the surface has been adequately cleaned.

The DASNY Third-Party Consultant shall certify surface wipe sample results collected inside and outside the work area are less than 40 μg/ft2 on uncarpeted floors, less than 250 μg/ft2 on interior window sills and less than 400 μg/ft2 on window troughs or not significantly greater than the initial surface loading determined prior to work, as directed.

When the work area passes the post-renovation cleaning verification and satisfactory third-party clearance air sample results, remove the warning signs.

For exterior paint removal work, a certified renovator must perform a visual inspection to determine whether dust, debris or residue is still present on surfaces in and below the work area, including windowsills and the ground. If dust, debris or residue is present, these conditions must be eliminated and another visual inspection must be performed. When the area passes the visual inspection, remove the warning signs. The DASNY Third-Party Consultant will provide soil samples taken at the exterior of the work site to be used to determine if soil lead levels have increased at a statistically significant level (significant at the 95 percent confidence limit) from the soil lead levels prior to the work. If soil lead levels do show a statistically significant increase above any applicable Federal or State standard for lead in soil, the soil shall be remediated back to the pre-work level.

Testing of LBP Residue and Used Abrasive: The Third-Party Consultant shall test paint residue and used abrasive in accordance with 40 CFR 261 for hazardous waste.

Disposal

Waste from renovation activities must be contained to prevent releases of dust and debris before the waste is removed from the work area for storage or disposal. If a chute is used to remove waste from the work area, it must be covered. At the conclusion of each work day and at the conclusion of the renovation, waste that has been collected from renovation activities must be stored under containment, in an enclosure, or behind a barrier that prevents release of dust and debris out of the work area and prevents access to dust and debris. The waste must be contained to prevent release of dust and debris during transport.

Collect lead-contaminated waste, scrap, debris, bags, containers, equipment, and lead-contaminated clothing, which may produce airborne concentrations of lead particles. Label the containers in accordance with 29 CFR 1926.62 and 40 CFR 261. Dispose of lead-contaminated waste material at an EPA or State approved hazardous waste treatment, storage, or disposal facility off Owner’s property.

Store waste materials in US Department of Transportation (DOT) (49 CFR 178) approved 55-gallon drums. Properly label each drum to identify the type of waste (49 CFR 172) and the date the drum was filled. DASNY or an authorized representative will assign an area for interim storage of waste-containing drums. Do not store hazardous waste drums in interim storage longer than 90 calendar days from the date affixed to each drum.

Handle, store, transport, and dispose lead or lead-contaminated waste in accordance with 40 CFR 260, 40 CFR 261, 40 CFR 262, 40 CFR 263, 40 CFR 264, and 40 CFR 265. The Contractor shall provide documentation the transporter is authorized to transport the waste, authorized to deliver the waste to the treatment, storage, or disposal facility and the treatment, storage, or disposal facility is authorized to accept the waste. Comply with land disposal restriction notification requirements as required by 40 CFR 268.

All waste containers shall be lined with two layers of polyethylene sheeting prior to disposal of materials.

All material, whether hazardous or non-hazardous shall be disposed of in accordance with laws and provisions and federal, State, or local regulations. Ensure waste is properly characterized. The result of each waste characterization (TCLP for RCRA materials) will dictate disposal requirements.

The waste profile, LDR form, waste transporter permit must be reviewed and approved by the Third-Party Consultant prior to any hazardous waste leaving the site.

The DOT-trained Third-Party Consultant must be on-site for all hazardous waste shipment removals and will be responsible for inspection of the waste shipment and signoff on the hazardous waste manifest on behalf of the owner and DASNY to allow the hazardous waste shipment to leave the site.

Disposal Documentation: Submit written evidence 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.

Payment for Hazardous Waste: 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 Owner.

END OF SECTION 02 83 00

APPENDIX A

WASTE SHIPMENT RECORD LOG

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| **DORMITORY AUTHORITY STATE OF NEW YORK** |  |
| **WASTE SHIPMENT RECORD LOG** |  |
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| **Project: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** |  |  |  | **Project Number: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** |  |
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| **Lead Contractor: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** |  |  |  | **Environmental Consultant: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** |  |
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|  |  |  |  |  |  |  |  |  |  |  |  | **DATES (Chain of Events)** |  |
| **Load No.** |  | **Hauler** |  | **NYSDEC #** |  | **License Plate No.** |  | **Size of Container** |  | **Disposal Facility** |  | **Departed from Site** |  | **Rec'd at Disposal Site** |  | **Shipment Record Returned** |  |
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| **COMMENTS:** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

APPENDIX B

CONTRACTOR’S ACKNOWLEGEMENT STATEMENT

**CONTRACTOR’S ACKNOWLEDGEMENT STATEMENT**

**Re: Removal of Lead Containing Paint**

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 (Project Title)

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 (Project Location)

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 (DASNY Project Number)

**In consideration of the following individuals’ employment in connection with the abatement, handling, and disposal of lead containing materials at the referenced project, I hereby certify that the employees: a) have received the medical examinations required by OSHA 29 CFR 1926.62; b) have been fit tested specifically for respirators used on the Project; and c) have received training as required by OSHA 29 CFR 1926.62 in the proper handling of lead containing materials~~,~~ including the health implications and risks involved, as well as the use and limitations of the respiratory equipment to be used.**

Employee Name US EPA Certificate Number

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Supervisor Signature Printed Name

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APPENDIX C

EPA NOTIFICATION OF LEAD-BASED PAINT ABATEMENT ACTIVITIES

