

3. During the visual inspection, the registered lead-safe property shall be examined visually for the presence of deteriorated paint that is not proven to be lead-free, failure of an enclosure, encapsulant or covering, and the presence of other potential lead-based paint hazards using documented methodologies taught in the lead sampling course.

4. The results of the visual inspection shall be recorded on a visual inspection form obtained from or approved by the department. The form shall include all of the following:

a. The date of the visual inspection.

b. The name, lead certification number and contact telephone number of the person who conducted the visual inspection.

c. The result of the visual inspection.

5. The visual inspection form shall be maintained under par. (h) and, when requested, shall be submitted to the department within 10 working days.

6. Any deteriorated paint that is not proven to be lead-free and any failing enclosure, encapsulation or covering shall be repaired and any lead-based paint hazard removed according to the timeframe under par. (d).

(d) *Remove lead-based paint hazards.* 1. Subject to the provisions under subds. 2. to 6., the property owner or the property owner's agent or employee shall ensure that any failing enclosure, encapsulation or covering, deteriorated paint that is not proven to be lead-free, and any other potential lead-based paint hazard that is detected during a visual inspection under par. (e), reported by an adult occupant, the parent or guardian of an occupant who is under age 6 years, or a federal, state or local governmental agency, or that the property owner or the property owner's agent or employee observes during routine activities is repaired or removed within 20 working days.

2. If a child under the age of 6 occupies a unit where an interior lead-based paint hazard is located, measures shall be taken within 5 working days to protect the child from lead exposure. These measures may be temporary, such as temporarily covering deteriorated paint with duct tape or preventing access to the area, provided the repair or removal is completed within 20 working days.

3. If an exterior lead-based paint hazard is identified between October 1 and May 1, it shall be removed by June 1.

4. The failing enclosure, encapsulation or covering, deteriorated paint that is not proven to be lead-free, or any other potential lead-based paint hazard shall be repaired or removed at an earlier date if the department or another governmental agency orders earlier action.

5. Repair or removal of a failing enclosure, encapsulation or covering, deteriorated paint that is not proven to be lead-free, or any other potential lead-based paint hazard is not required when both of the following conditions apply:

a. A certified lead-safe property manager or an individual certified in a lead investigation discipline uses documented methodologies to determine that a dust-lead hazard is not present and the paint is lead-free.

b. The laboratory report for the determination is maintained under par. (h).

6. When exceptional circumstances prevent the timely repair or removal of a failing enclosure, encapsulation or covering, deteriorated paint that is not proven to be lead-free, or any other potential lead-based paint hazard, the property owner or the property owner's employee or agent may ask the department to grant an extension as follows:

a. The property owner or the property owner's agent or employee shall submit a written request for an extension for receipt by the department before the applicable deadline under subds. 1. to 3.

b. The request shall identify the registered lead-safe property by certificate registration number and shall clearly explain why an extension is necessary.

c. A processing fee of \$25 shall be submitted to the department with each request for an extension.

d. Within 10 working days after receiving a request for an extension and the processing fee, the department shall grant or deny the request based on all facts available to the department.

e. An extension may be granted by the department if the extension will not prolong the exposure of a child under age 6 years to a lead-based hazard. Each extension shall be unique to the particular situation for which the extension is granted and may not exceed 40 working days per extension.

f. Any extension denied by the department may be appealed under s. HFS 163.33.

(e) *Verify certification.* 1. 'Certification applicable to all target housing and child-occupied facilities.' Before an abatement or lead investigation activity is performed, the property owner or the property owner's agent or employee shall ensure that persons conducting the activity have current certification cards at the site when certification is required under ss. HFS 163.10 and 163.12.

2. 'Certification applicable to registered lead-safe property only.' Before a lead-based paint activity that does not involve abatement is performed, the property owner or the property owner's agent or employee shall ensure that persons conducting the activity have current certification cards at the site when certification is required under s. HFS 163.43.

(f) *Follow work practice standards.* To reduce exposure to a lead-based paint hazard created during an activity that disturbs lead-based paint, the property owner or the property owner's agent or employee shall follow work practice standards under s. HFS 163.44 and shall require all persons performing lead-based paint activities on registered lead-safe property to comply with work practice standards under s. HFS 163.14 or 163.44, as applicable.

(g) *Conduct clearance.* To ensure the property is restored to a lead-safe condition after a lead-based paint activity is conducted, the property owner or the property owner's agent or employee shall ensure that clearance is conducted as required under s. HFS 163.44 (6).

(h) *Maintain documentation.* A property owner or the property owner's agent or employee shall maintain the following documentation for a minimum of 1 year after expiration of the certificate of lead-safe status that was in effect when the documented activity was conducted:

1. Reports and notices issued under requirements of this chapter and related to a registered lead-safe property, including lead-safe investigation reports, abatement notices, abatement reports, and clearance reports.

2. Visual inspection reports and occupant reports of potential lead-based paint hazards, with a notation as to the date received, when applicable, and the date the potential lead-based paint hazard was removed under par. (c) and by whom.

Note: Under federal disclosure requirements under 24 CFR Part 35 and 40 CFR Part 745, the seller or lessor of residential property must disclose the existence of any available records or reports pertaining to lead-based paint and lead-based paint hazards and provide the purchaser or lessee with any of these records or reports that are available to the seller or lessor.

(4) APPLICATIONS FOR CERTIFICATES OF LESS THAN 12 MONTHS. Unless exempted by statute, a person may only apply for certificates of lead-safe status of less than 12 months for the identical premises as follows:

(a) A person may apply for no more than 2 successive certificates of lead-safe status that have a duration of less than 12 months and, if again applying for a certificate of lead-safe status, shall apply for a certificate that has a duration of 12 months or more.

(b) A person under par. (a) shall, if applying for a certificate of lead-safe status that is in addition to the certificates specified in par. (a) and that has a duration of less than 12 months, provide the department with the reason why a certificate of less than 12 months' duration is needed.

(c) A person under pars. (a) and (b) shall, if applying for a certificate of lead-safe status that is in addition to the certificates specified in pars. (a) and (b) and that has a duration of less than 12 months, provide the department with clear and convincing evidence of why a certificate of less than 12 months' duration is needed.

(5) REVOCATION. If the department provides written notice of revocation, the grounds for revocation and an explanation of the process under s. HFS 163.33 for appealing a revocation not less than 30 days before the date of the revocation, and the violation on which the revocation is based remains substantially uncorrected at the end of the 30-day notice period, the department may revoke a certificate of lead-safe status for any of the following reasons:

(a) The property owner or property owner's employee or agent obtained the certificate by fraud.

(b) The dwelling, dwelling unit, child-occupied facility or other premises is not free of lead-based paint hazards, as determined by sampling conducted using documented methodologies.

(c) The certificate was issued in error.

(d) The property owner or property owner's employee or agent violated a condition under sub. (3) for maintaining the certificate of lead-safe status.

(e) The property owner or property owner's employee or agent created a lead-based paint hazard.

(f) The property owner or property owner's employee or agent violated another state, local or federal statute, ordinance, rule or regulation relating to lead-based paint at the registered lead-safe property.

(g) The lead-safe investigation protocol under sub. (2) was not followed in determining that the property met the registered lead-safe property standards and a subsequent lead-safe investigation did not verify that the property met the lead-safe standards.

Note: When a property owner is notified of a problem with a lead-safe investigation, the property owner may hire a certified lead company to conduct a new lead-safe investigation to verify that the property was, in fact, eligible for the lead-safe certificate. If the property owner submits the investigation report for the new lead-safe investigation to the department, the department will review the report and stop the revocation action if the new lead-safe investigation verifies the property meets the standards.

HFS 163.43 Certification to perform lead-based paint activities on registered lead-safe property. (1) REQUIREMENTS FOR CERTIFICATION. Except as provided under par. (e), a person performing a lead-based paint activity on registered lead-safe property shall hold current certification issued by the department as follows:

(a) To perform low-risk lead-based paint activities other than abatement, certification as a lead-safe maintenance worker under sub. (2), lead-safe property manager under sub. (3), or in a lead hazard reduction discipline under s. HFS 163.10.

(b) To perform low-risk abatement activities, certification under s. HFS 163.10 as a lead low-risk worker, lead high-risk worker, lead low risk supervisor or lead contractor supervisor and shall be associated with a certified lead company under s. HFS 163.12. A lead high-risk worker or lead low-risk worker shall be supervised as required under s. HFS 163.14 (6).

Note: Abatement activities include activities intended to eliminate lead-based paint hazards, including activities to make a property lead-safe, maintain a certificate of lead-safe status, or seek a longer certificate of lead-safe status.

(c) To perform high-risk lead-based paint activities other than abatement, certification under s. HFS 163.10 as a lead high-risk worker or lead contractor supervisor.

(d) To perform high-risk abatement activities, certification under s. HFS 163.10 as a lead contractor supervisor or a lead high-risk worker under the direct supervision of a lead contractor supervisor and shall be associated with a certified lead company under s. HFS 163.12.

(e) Certification is not required under this chapter when any of the following applies:

1. All activities are within the scope of a license, certification or registration issued to the individual by the department of commerce under s. 101.178, 101.87 or ch. 145, Stats.

2. The only activities performed involve installation or repair of wiring, cables or components of the dwelling's security, electrical, heating, plumbing or cooling systems.

3. All paint disturbed by the activity has been tested by a person certified in an appropriate lead investigation discipline, who has determined that the paint does not meet the definition of lead-based paint under s. HFS 163.03 (65).

4. Lead-based paint activities are performed that meet all of the following criteria:
 - a. The activities do not involve lead abatement.
 - b. The total amount of paint to be disturbed is equal to or less than 2 square feet.
 - c. Activities are not a series of small jobs performed that would require certification if performed sequentially, such as activities conducted in response to a visual inspection or notification of a potential lead-based paint hazard.
 - d. The activities are conducted in compliance with applicable work practice standards under s. HFS 163.44.

Note: Although individuals do not need to be certified to perform activities that meet the provisions of subd. 3., they must follow the applicable work practice standards, such as compliance with regulations, occupant protection, restricted work practices, notification of abatement and high-risk lead-based paint activities, clearance and disposal of debris. Completion of the 8-hour lead low-risk work course or lead-safe maintenance course is highly recommended to help comply with the applicable work practices standards under s. HFS 163.44. Refer to the definitions of abatement under s. HFS 163.03 (1), high-risk abatement activity under s. HFS 163.03 (53), high-risk lead-based paint activity under s. HFS 163.03 (54), low-risk abatement activity under s. HFS 163.03 (86), low-risk lead-based paint activity under s. HFS 163.03 (87), and guidance documents obtained from the department when determining what type of an activity is being performed.

(2) CONDITIONS FOR CERTIFICATION OF A LEAD-SAFE MAINTENANCE WORKER.

(a) *Criteria for certification.* To be certified, an applicant for certification as a lead-safe maintenance worker shall meet all of the following criteria:

1. Be a minimum of 18 years old.
2. Successfully complete one of the following required training courses:
 - a. An 8-hour lead low-risk work course or 8-hour lead-safe maintenance course accredited under this chapter.
 - b. An 8-hour maintenance or renovation course approved by EPA, by a state or tribal program under EPA authorization or, when allowed under federal regulations, by HUD.

3. Submit an application for certification under par. (b).

(b) *Submit an application.* An individual applying for lead-safe maintenance worker certification shall submit all of the following to the department:

1. A fully and accurately completed application on a form obtained from the department. The applicant shall include the applicant's social security number on the application and shall personally sign the application affidavit verifying the accuracy of the information.
2. A clearly identifiable photograph of the applicant's face in a standard passport size measuring 2 inches by 2 inches, taken within the previous 24 months.
3. Training certificates documenting completion of required training.

4. A \$50 application fee.

Note: Applications are accepted at the Asbestos and Lead Section, Bureau of Occupational Health, Room 137, 1 West Wilson Street, P.O. Box 2659, Madison, WI 53701-2659; e-mail "plicasbestoslead@dhfs.state.wi.us"; ph. 608-261-6876; fax 608-266-9711; or contact the Asbestos and Lead Section for information about other locations.

(3) CONDITIONS FOR CERTIFICATION OF A LEAD-SAFE PROPERTY MANAGER. (a) *Criteria for certification.* To be certified, an applicant for certification as a lead-safe property manager shall meet all of the following criteria:

1. Be a minimum of 18 years old.
2. Successfully complete required lead-safe maintenance worker training under sub. (2) and lead sampling technician training under s. HFS 163.11.
3. Submit an application for certification under par. (b).

(b) *Submit an application.* An individual applying for lead-safe property manager certification shall submit all of the following to the department:

1. A fully and accurately completed application on a form obtained from the department. The applicant shall include the applicant's social security number on the application and shall personally sign the application affidavit verifying the accuracy of the information.
2. A clearly identifiable photograph of the applicant's face in a standard passport size measuring 2 inches by 2 inches, taken within the previous 24 months.
3. Training certificates documenting completion of required training.
4. A \$75 application fee.

Note: Applications are accepted at the Asbestos and Lead Section, Bureau of Occupational Health, Room 137, 1 West Wilson Street, P.O. Box 2659, Madison, WI 53701-2659; e-mail "plicasbestoslead@dhfs.state.wi.us"; ph. 608-261-6876; fax 608-266-9711; or contact the Asbestos and Lead Section for information about other locations.

(4) ACTION BY THE DEPARTMENT (a) *Timing.* Within 10 working days after receipt of a fully and accurately completed certification application, the department shall grant or deny certification.

(b) *Grant certification.* If an individual applies for certification and meets all of the applicable conditions for certification under sub. (2) or (3), the department may grant certification. When certification is granted, the department shall issue or arrange for the issuance of a certification card for the appropriate discipline.

(c) *Deny certification.* If certification is denied, the department shall give the applicant a written explanation for the denial and shall notify the applicant of the right to appeal that decision under s. HFS 163.33.

(5) LENGTH OF CERTIFICATION. (a) *Length of lead-safe maintenance worker certification.* Certification as a lead-safe maintenance worker is valid until revoked or suspended under subch. IV.

(b) *Length of lead-safe property manager certification.* Certification as a lead-safe property manager is valid as follows:

1. Certification obtained during an odd-numbered calendar year shall expire at midnight on August 1 of the subsequent odd-numbered year.

2. Certification obtained during an even-numbered calendar year shall expire at midnight on August 1 of the subsequent even-numbered year.

3. To continue certification after the expiration date, a lead-safe property manager shall submit another application for certification to the department, except that additional proof of training is not required.

HFS 163.44 Work practice standards for lead-based paint activities. All persons conducting lead-based paint activities on registered lead-safe property shall comply with applicable requirements under this section.

(1) REQUIREMENT FOR COMPLIANCE. All lead-based paint activities shall be conducted in a manner that does not increase lead-based paint hazards to the occupants and complies with applicable federal, state and local government requirements.

Note: 1. EPA regulations under 40 CFR Part 745 Subpart E require a contractor to provide pre-renovation education material to occupants prior to most lead-based paint activities, other than abatement, that disturb more than 2 square feet. The occupant protection plan for the activity may be provided to occupants at the same time. Information on EPA lead regulations is available on the EPA website at "www.epa.gov/lead" or may be obtained from the department.

2. HUD regulations under 24 CFR Part 35 provide requirements for controlling lead-based paint hazards in federally-assisted or federally-owned housing. Such housing might be subject to additional requirements. For example, for some properties receiving federal assistance, these regulations require that notice be given to occupants following lead hazard reduction activities. Information on HUD lead regulations is available on the HUD website at "www.hud.gov/lea".

3. The Occupational Safety and Health Administration (OSHA), under 29 CFR Part 1926, provides requirements for employers involved with lead in construction, such as persons performing renovation in pre-1978 dwellings. The regulations address issues such as safety training, personal protection and medical monitoring of employees. Information on OSHA regulations is available on the OSHA website at "www.osha.gov".

(2) REQUIREMENTS FOR SUPERVISION. (a) *Supervision for high-risk lead-based paint activities other than abatement.* A lead contractor supervisor shall provide direct onsite supervision when a lead high-risk worker performs a high-risk lead-based paint activity other than abatement and more than 2 square feet of lead-based paint is disturbed. When 2 square feet or less of lead-based paint is disturbed and abatement is not involved, a certified high-risk worker may perform a high-risk lead-based paint activity without direct supervision.

(b) *Supervision for low-risk lead-based paint activities other than abatement.* A certified person does not have to be supervised when performing a low-risk lead-based paint activity that does not involve lead abatement.

(c) *Supervision for abatement activities.* When abatement activities are performed, supervision is required under s. HFS 163.14 (3) (c) for high-risk abatement activities and under s. HFS 163.14 (6) (c) for low-risk abatement.

(3) REQUIREMENTS FOR OCCUPANT PROTECTION. Documented methodology shall be used to protect occupants as follows:

(a) *Occupant protection for high-risk lead-based paint activities other than abatement.* 1. 'Written occupant protection plan.' Before starting a high-risk lead-based paint activity that disturbs more than 2 square feet of lead-based paint, a certified lead contractor supervisor or project designer shall prepare a written occupant protection plan and discuss the plan with or provide the plan to an adult occupant of each dwelling unit affected by a planned high-risk lead-based paint activity. The occupant protection plan shall be appropriate to the project and shall describe the measures and management procedures that will be taken during the activity to protect the building occupants from exposure to lead-based paint hazards. The occupant protection plan shall be followed and kept at the job site for viewing by interested persons.

2. 'Containment.' When an interior high-risk lead-based paint activity is performed, containment shall be used to isolate areas where lead-based paint is being disturbed from the rest of the property to prevent the accidental discharge of significant lead-based paint dust, vapor or debris that might cause a person to have an elevated blood lead level.

3. 'Signs and demarcation.' When an exterior high-risk lead-based paint activity is performed, the work area shall be either contained or demarcated with signs, tape or plastic sheeting and appropriate measures taken to limit the distribution of lead-based paint dust, vapor and debris outside the work area.

4. 'Restricted access.' Uncertified persons shall be kept out of containment or any work area where lead-based paint is being disturbed by a high-risk lead-based paint activity. Before uncertified individuals are allowed inside a work area, appropriately certified persons shall use documented methodologies to clean the area and remove any containment materials, after which a visual inspection shall be conducted and successfully completed. An individual involved with conducting the lead based paint activity shall provide information about the potential presence of lead-based paint hazards to individuals who enter the work area after the area has been cleaned and visually inspected but before clearance has been successfully completed.

(b) *Occupant protection for low-risk lead-based paint activities other than abatement.* 1. 'Signs and demarcation.' When a low-risk lead-based paint activity is performed that does not involve abatement, appropriate measures shall be taken to limit the distribution of lead-based paint dust and debris outside the work area and, if the activity disturbs more than 2 square feet of lead-based paint, the work area shall be demarcated with signs, tape or plastic sheeting.

2. 'Restricted access.' Uncertified persons shall be kept out of the work area where lead-based paint is disturbed unless the total amount of lead-based paint disturbed is 2 square feet or less, only low-risk lead-based paint activities are conducted, and abatement is not involved. Before uncertified individuals are allowed inside the work area, the work area shall be cleaned according to documented methodologies and a visual inspection successfully completed. An individual involved with conducting the lead-based paint activity shall provide information about the

potential presence of lead-based paint hazards to individuals who enter the work area after the area has been cleaned and visually inspected but before clearance has been successfully completed.

(c) *Occupant protection for abatement activities.* When abatement activities are performed, occupant protection is required under s. HFS 163.14 (3) (e) for high-risk abatement activities and under s. HFS 163.14 (6) (e) for low-risk abatement.

(4) **RESTRICTED WORK PRACTICES.** All of the following restricted work practices apply to lead-based paint activities performed on registered lead-safe property:

(a) *Dry scraping or dry sanding.* Dry scraping or dry sanding of lead-based paint is prohibited unless one of the following conditions exists:

1. Dry scraping is conducted in conjunction with a heat gun that produces heat at a temperature below 1100 degrees fahrenheit.

2. Dry scraping or dry sanding is conducted within one foot of electrical outlets where wet scraping or wet sanding may pose an electrical hazard.

3. Dry scraping or dry sanding is used to treat defective paint spots totaling 2 square feet or less in any one room, hallway, stairwell or living area, or totaling no more than 20 square feet on exterior surfaces.

(b) *Abrasive blasting or sandblasting.* Abrasive blasting or sandblasting of lead-based paint is prohibited unless used with engineering controls that contain the dust and debris.

(c) *Demolition.* Demolition of all or part of a dwelling or child-occupied facility containing lead-based paint shall be conducted using containment or other methods that prevent lead-based paint vapors, dust or debris from becoming airborne and dispersing.

(d) *Heat gun.* Heat guns operating at or above 1100 degrees fahrenheit or charring the paint is prohibited on lead-based paint unless the work is done in a fully contained area with HEPA air filtration and the individual operating the heat gun uses personal protection equipment as required by the U.S. occupational safety and health administration lead in construction regulations under 29 CFR 1926.62 and worker respiratory protection regulations under 29 CFR 1910.134.

(e) *High-pressure water blasting.* High pressure water blasting to remove paint may only be used with a containment system to prevent the wastes generated from contaminating soils or surfaces waters or from becoming airborne and dispersing. The paint chips and other solid residues shall be separated from the water, collected and properly managed.

(f) *Machine sanding, grinding or planing.* Machine sanding, grinding or planing of lead-based paint is prohibited unless used with a HEPA-filtered exhaust control.

(g) *Open-flame burning or torching.* Open-flame burning or torching of lead-based paint is prohibited.

(h) *Paint stripping.* Paint stripping is prohibited in a poorly ventilated space using a volatile stripper that is a hazardous substance in accordance with regulations of the consumer product safety commission at 16 CFR 150.3. Ventilation shall meet the standards for a hazardous

chemical in accordance with the U.S. occupational safety and health administration regulations at 29 CFR 1910.1200 or 1926.59, as applicable to the work.

(i) *Restrictions under local ordinances.* When work is covered by a local ordinance, all restrictions of that ordinance apply.

(j) *Waste, water and air management.* 1. Discharge of wastewater shall be managed in accordance with department of natural resources regulations under chs. NR 105, 106 and 200 to 299.

2. Air emissions shall be managed in accordance with department of natural resources regulations under chs. NR 404, 415, 429 and 445.

3. Waste shall be managed in accordance with department of natural resources regulations under chs. NR 500 to 538 and 600 to 685.

(5) **REQUIREMENT FOR NOTIFICATION TO THE DEPARTMENT.** (a) Except as provided under subd. 2, a certified person shall submit notification to the department before performing lead-based paint activities and shall allow the department an opportunity to review work being performed. Notification shall be submitted to the department as follows:

1. Notification to the department is required before abatement or high-risk lead-based paint activities are performed. For abatement activities, follow the provisions under s. HFS 163.14 (7). For other high-risk lead-based paint activities, follow the provisions of this subsection.

2. Notification to the department is not required before low-risk lead-based paint activities if abatement is not performed.

(b) *Timing of notice.* A certified person shall submit written or verbal notification for receipt by the department as follows:

1. For original notice of a high-risk lead-based paint activity, written notification not less than 2 working days before the start of the activity.

2. In an emergency where a health risk warrants immediate action, written or verbal notification before the start of the activity.

3. To change the project start date on an existing notice, written or verbal revised notification not less than 1 working day before the activity begins if the new start date is earlier than the original start date or a minimum of one working day before the original start date if the new start date is later than the original start date.

4. To change the project end date on an existing notice, written or verbal revised notification as soon as the change is determined, but no later than the original end date.

(c) *Written notification.* 1. 'Form for written notification.' Written notification shall be on the department's notification form or on a form approved by the department and shall include all of the following information:

a. Project details, including the start and end dates, work shifts or hours, project activities, quantity of lead-based paint materials in the project, and whether the project was ordered, affected

by HUD requirements, or involved registered lead-safe property or property applying for a certificate of lead-free status or lead-safe status.

b. Lead investigation details, including how and when it was identified and the name and certification number of the lead hazard investigator, inspector or risk assessor.

c. Lead company details, including name, certification number, address, contact person and telephone number.

d. Facility or dwelling details, including type, occupancy, location, contact person and telephone number and current owner and telephone number.

2. 'Acceptable methods for submitting written notification.' Written notification may be sent by U.S. mail, commercial carrier, fax, email, internet, or another method approved by the department.

3. 'Official date of written notification.' The official date of a written notification shall be the date on the department's date of receipt stamp. A notification received after 4:00 p.m. shall be dated as received the next working day.

4. 'Rejection of notification.' The department may reject a notification that is illegible or incomplete.

Note: To request a copy of the Department's notification form, to request approval of a form or method of submission or to submit written notification, contact the Asbestos and Lead Section, Bureau of Occupational Health, Room 137, 1 W. Wilson St., P.O. Box 2659, Madison, WI 53701-2659; e-mail "plicasbestoslead@dhfs.state.wi.us"; ph. 608-261-6876; or fax 608-266-9711.

(d) *Verbal notification.* 1. 'Acceptable methods for submitting verbal notification.' For emergency or revised notification, verbal notification may be made by telephone or in person and shall include all of the following information:

a. Start and end dates.

b. Name and certification number of the lead company conducting the activity.

c. Location of the dwelling or facility where the activity will be conducted.

2. 'Official date of verbal notification.' The official date of a verbal notification shall be the date a department representative accepts the verbal notification.

3. 'Written follow-up to verbal notification.' When verbal notification is given, the contractor supervisor, low-risk supervisor or the person contracting for the activity shall also submit a written notification within 2 working days after the date of the verbal notification.

Note: To submit verbal notification, phone 608-261-6876 or deliver in person to Room 137, 1 W. Wilson Street in Madison, and send the follow-up written notice to the Asbestos and Lead Section, Bureau of Occupational Health, P.O. Box 2659, Madison, WI 53701-2659.

(6) REQUIREMENT FOR CLEARANCE. (a) *General requirements.* The individual who conducts clearance may not participate in performing the activity being cleared and may not communicate the location where clearance dust wipes will be collected. Except as specified under

par. (b) 3., clearance under s. HFS 163.14 (1) shall be conducted following lead-based paint activities performed on registered lead-safe property as described in pars. (b) and (c).

(b) *Lead abatement not involved.* 1. Clearance involving a high-risk lead-based paint activity that disturbs more than 2 square feet of lead-based paint shall be conducted by a certified hazard investigator, inspector, risk assessor or sampling technician associated with a certified lead company. A certified individual involved in conducting this clearance may not be an immediate family member, agent or employee of a property owner or associated with a certified lead company that is directly or beneficially owned, controlled or managed by a property owner, or by an immediate family member, agent or employee of a property owner.

2. Except as specified under subd. 3., clearance involving either a high-risk lead-based paint activity that disturbs 2 square feet or less of paint or a low-risk lead-based paint activity shall be conducted by one of the following certified individuals when abatement is not involved:

a. A certified hazard investigator, inspector, risk assessor or sampling technician associated with a certified lead company.

b. A certified lead-safe property manager.

3. Clearance is not required for a low-risk lead-based paint activity that disturbs 2 square feet or less of lead-based paint if abatement is not involved and the individual performing the activity is certified as a lead-safe maintenance worker or lead-safe property manager or in a lead hazard reduction discipline.

(c) *Lead abatement involved.* Clearance is always required following lead abatement. Clearance involving lead abatement shall be conducted by a certified hazard investigator, inspector, or risk assessor associated with a certified lead company. A certified individual involved in conducting this clearance may not be an immediate family member, agent or employee of a property owner or associated with a certified lead company that is directly or beneficially owned, controlled or managed by a property owner, or by an immediate family member, agent or employee of a property owner.

(7) REQUIREMENT FOR DISPOSAL OF LEAD-BASED PAINT DEBRIS. After a lead-based paint activity is conducted, all lead-based paint debris shall be promptly disposed of according to the waste management requirements under chs. NR 500 to 538 and 600 to 685.

The rules contained in this order shall take effect on the first day of the month following publication in the Wisconsin Administrative Register as provided in s. 227.22 (2), Stats.

Wisconsin Department of Health and
Family Services

Dated:

By: _____
Phyllis J. Dubé
Secretary

SEAL:

APPENDIX A

High-Risk Lead-Based Paint Activities Identified in OSHA Regulations

Note: High-risk lead-based paint activities identified under the following lead-in-construction regulations issued by the U.S. Occupational Safety and Health Administration are highlighted by **bold** print.

OSHA 1926.62 (d) (2) "Protection of employees during assessment of exposure".

(i) With respect to the lead related tasks listed in this paragraph (d) (2) (i) of this section, where lead is present, until the employer performs an employee exposure assessment as required in paragraph (d) of this section and documents that the employee performing any of the listed tasks is not exposed above the PEL, the employer shall treat the employee as if the employee were exposed above the PEL, and not in excess of ten (10) times the PEL, and shall implement employee protective measures prescribed in paragraph (d) (2) (v) of this section. The tasks covered by this requirement are:

(A) Where lead containing coatings or paint are present: Manual demolition of structures (e.g, dry wall), manual scraping, manual sanding, heat gun applications, and power tool cleaning with dust collection systems;

Note: Manual wet scraping and manual wet sanding of 2 square feet or less of paint that is not proven to be lead-free is a low-risk lead-based paint activity under s. HFS 163.03 (87).

(B) Spray painting with lead paint.

(ii) In addition, with regard to tasks not listed in paragraph (d) (2) (i), where the employer has any reason to believe that an employee performing the task may be exposed to lead in excess of the PEL, until the employer performs an employee exposure assessment as required by paragraph (d) of this section and documents that the employee's lead exposure is not above the PEL the employer shall treat the employee as if the employee were exposed above the PEL and shall implement employee protective measures as prescribed in paragraph (d) (2) (v) of this section.

(iii) With respect to the tasks listed in this paragraph (d) (2) (iii) of this section, where lead is present, until the employer performs an employee exposure assessment as required in paragraph (d) of this section, and documents that the employee performing any of the listed tasks is not exposed in excess of 500 ug/m³, the employer shall treat the employee as if the employee were exposed to lead in excess of 500 ug/m³ and shall implement employee protective measures as prescribed in paragraph (d) (2) (v) of this section. Where the employer does establish that the employee is exposed to levels of lead below 500 ug/m³, the employer may provide the exposed employee with the appropriate respirator prescribed for such use at such lower exposures, in accordance with Table 1 of this section. The tasks covered by this requirement are:

(A) Using lead containing mortar; lead burning,

(B) Where lead containing coatings or paint are present: rivet busting; power tool cleaning without dust collection systems; cleanup activities where dry expendable abrasives are used; and abrasive blasting enclosure movement and removal.

(iv) With respect to the tasks listed in this paragraph (d) (2) (iv) of this section, where lead is present, until the employer performs an employee exposure assessment as required in paragraph (d) of this section and documents that the employee performing any of the listed tasks is not exposed to lead in excess of 2,500 ug/m³ (50 x PEL), the employer shall treat the employee as if the employee were exposed to lead in excess of 2,500 ug/m³ and shall implement employee protective measures as prescribed in paragraph (d) (2) (v) of this section. Where the employer does establish that the employee is exposed to levels of lead below 2,500 ug/m³, the employer may provide the exposed employee with the appropriate respirator prescribed for use at such lower exposures, in accordance with Table I of this section. Interim protection as described in this paragraph is required where lead containing coatings or paint are present on structures when performing:

(A) **Abrasive blasting,**

(B) **Welding,**

(C) **Cutting, and**

(D) **Torch burning.**

(v) Until the employer performs an employee exposure assessment as required under paragraph (d) of this section and determines actual employee exposure, the employer shall provide to employees performing the tasks described in paragraphs (d) (2) (i), (d) (2) (ii), (d) (2) (iii) and (d) (2) (iv) of this section with interim protection as follows:

(A) Appropriate respiratory protection in accordance with paragraph (f) of this section.

(B) Appropriate personal protective clothing and equipment in accordance with paragraph (g) of this section.

(C) Change areas in accordance with paragraph (i) (2) of this section.

(D) Hand washing facilities in accordance with paragraph (i) (5) of this section.

(E) Biological monitoring in accordance with paragraph (j) (1) (i) of this section, to consist of blood sampling and analysis for lead and zinc protoporphyrin levels, and

(F) Training as required under paragraph (l)(1)(i) of this section regarding 29 CFR 1926.59, - Hazard Communication; training as required under paragraph (l) (2) (ii) (C) of this section, regarding use of respirators; and training in accordance with 29 CFR 1926.21, Safety training and education.

APPENDIX B

Random Selection Table for Lead Inspections and Lead-Free Inspections Only

Number of units to be tested when random selection is allowed:

Total number of units	Number of units to be tested if any unit was built before 1960 or if age is unknown	Number of units to be tested if all units were known to be built from 1960 through 1977
1-9	all units	all units
10-13	all units	10
14	all units	11
15	all units	12
16-17	all units	13
18	all units	14
19	all units	15
20	all units	16
21-26	20	16
27	21	17
28	22	18
29	23	18
30	23	19
31	24	19
32	25	19
33-34	26	19
35	27	19
36	28	19
37	29	19
38-39	30	20
40-48	31	21
49-50	31	22
51	32	22
52-53	33	22
54	34	22
55-56	35	22
57-58	36	22
59	37	23
60-69	38	23
70-73	38	24
74-75	39	24
76-77	40	24
78-79	41	24
80-95	42	24
96-97	43	25
98-99	44	25
100-117	45	25
118-119	46	26
120-138	47	26
139-157	48	26
158-159	49	26
160-177	49	27

178-197	50	27
198-218	51	27
219-258	52	27
259-279	53	27
280-299	53	28
300-379	54	28
380-499	55	28
500-776	56	28
777-939	57	28
940-1000	57	29
1,000 or more units	5.8% of units, rounded to nearest unit	2.9% of units, rounded to nearest unit

APPENDIX C

**Random Selection Table for Lead Hazard Screens, Lead-Safe Investigations,
Risk Assessments, and Clearance Only**

Number of units to be tested when random selection is allowed:

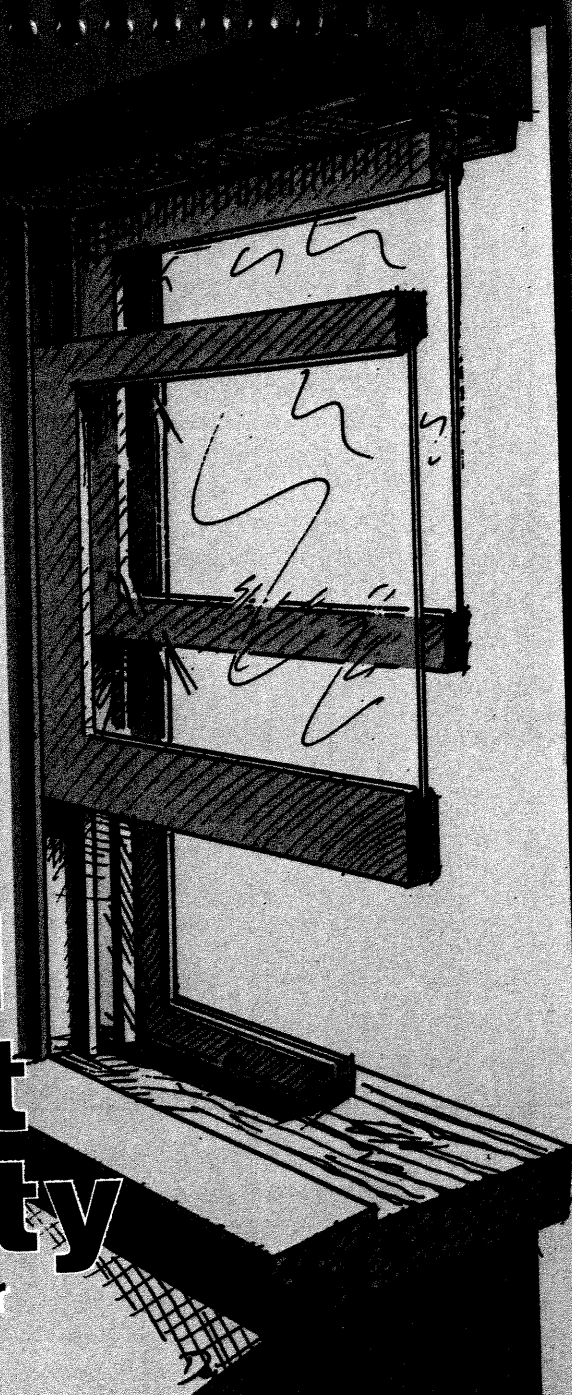
Total number of units	Number of units to be tested
0-20	all units
21-26	20
27	21
28	22
29-30	23
31	24
32	25
33-34	26
35	27
36	28
37	29
38-39	30
40-50	31
51	32
52-53	33
54	34
55-56	35
57-58	36
59	37
60-73	38
74-75	39
76-77	40
78-79	41
80-95	42
96-97	43
98-99	44
100-117	45
118-119	46
120-138	47
139-157	48
158-177	49
178-197	50
198-218	51
219-258	52
259-299	53
300-379	54
380-499	55
500-776	56
777-1000	57
1,000 or more units	5.8% of units, rounded to nearest unit



Lead Paint Safety

A Field Guide for
Painting, Home
Maintenance, and
Renovation Work

U.S. Department of Housing
and Urban Development
Office of Lead Hazard Control

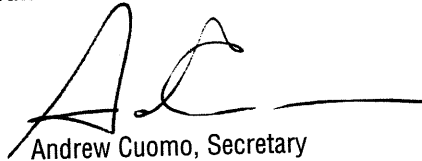


Foreword

The Department of Housing and Urban Development has had great success in alerting the public to the problems of lead poisoning. With the support of industry, other federal agencies, and community-based organizations, we've helped to reduce the number of children poisoned by lead in America. But much more needs to be done if we want every child in America to live in a safe home.

As part of our outreach efforts, we are publishing this field guide on lead safety work practices. If you perform routine maintenance on homes or apartments built prior to 1978, this guide will help you plan and safely carry out the work, while minimizing the disturbance of lead-based paint. Step-by-step instructions detail what you need to do to work smart and work safe. Our new guide is easy to understand and small enough to carry to work sites so you can easily follow the instructions inside.

It's going to take action by all of us to reach our common goal of a lead-safe America. You can do your part by using this guide and applying lead safety practices on the job. The families in the homes you work on, the people you work with – and your own family – will be grateful for it.



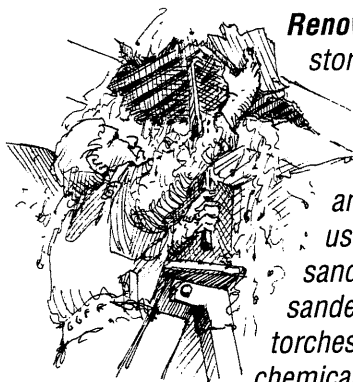
Andrew Cuomo, Secretary
U.S. Department of Housing and Urban Development

Acknowledgements

The U.S. Department of Housing and Urban Development (HUD) developed this guide with the assistance and input of the Centers for Disease Control and Prevention (CDC), the U.S. Environmental Protection Agency (EPA), and the Occupational Safety and Health Administration (OSHA). HUD would like to thank the staff of these agencies for their participation in developing this Field Guide. HUD would also like to thank all of the renovation, painting, maintenance, and lead professionals who provided useful feedback. Vicki Ainslie, Dana Bres, Robert Brown, Kevin Cleary, Alan Isaac, David Levitt, Linda Lewis, Dennis Livingston, Eric Oetjen, Roy Reveilles, Ron Rupp, Joe Shirmer, Aaron Sussell, Peter Tiernan, David Thompson, Richard Tobin, Ellen Tohn, Veda Watts, and Mike Wilson served on the Technical Panel for this project. A special thanks goes to these individuals for their contributions.

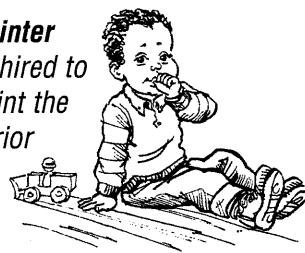
This Guide was developed by the U.S. Department of Housing and Urban Development's Office of Lead Hazard Control through a contract with ICF Incorporated. Dennis Livingston created the illustrations and provided technical content for this Field Guide.

WHY SHOULD I FOLLOW THIS GUIDE?



Renovation of a two-story, 19th century house included removing paint from floors and woodwork using power sanders, hand sanders, scrapers, torches, heat guns, and chemical paint strippers.

Ceilings were also repaired, and wallpaper and paint were removed from several walls. The family that owned the home temporarily moved out of the house. They returned when the work was only partly completed. There was dust throughout the house. The family discovered that something was wrong when one of the family's dogs began to have seizures. A veterinarian found that the dog had been lead poisoned. The mother and children had their blood tested, and found that all of them had very high levels of lead in their blood. All three were admitted to the hospital for severe lead poisoning.

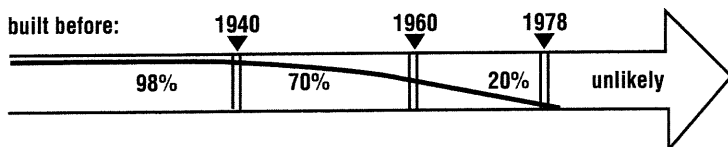


A painter was hired to repaint the exterior of an old Vermont home occupied by a couple expecting the birth of their first child. The painter used a power grinder to remove the old paint from the exterior siding. While the painter worked, the window to the baby's nursery was left open, and the entire room, including the crib, became covered with dust. Fortunately, the couple noticed the dust, and understood the potential risk. They called in another painter who was qualified to control lead hazards. He cleaned up the paint dust and the newborn baby moved into a clean, safe home.

Most Old Homes Contain Lead-Based Paint

- Most homes built before 1978 contain some lead-based paint. Lead-based paint is more common and was used more extensively in homes built before 1950.

Probability of a House Containing Lead



- Homes built before 1950 also used paint that had a higher concentration of lead.

WHY FOLLOW THIS GUIDE?

Poor Maintenance Endangers Children

- In poorly maintained houses, lead-based paint, which may be several layers down, flakes and peels off. Paint failure is usually caused by moisture problems. Sometimes rubbing or impact causes paint failure. Doing work improperly can also cause a lot of dust.
- Lead-based paint chips and dust then mix with house dust and build up in window troughs and on floors.
- Children are endangered when lead in paint chips, dust, and soil gets on their hands and toys which they may put in their mouths.
- Lead can make children very sick and cause permanent brain and nerve damage. It can also result in learning difficulties and behavior problems. This damage is irreversible. It is a tragedy we can prevent.
- If paint is kept intact and surfaces are kept clean, children can live safely in a home painted with lead-based paint.
- Uncontrolled or uncontained dust and debris from repainting and/or renovation that disturbs lead-based paint in a well-maintained home can also expose children to unsafe levels of lead.

Changing Common Work Practices Can Protect Workers and Children

- Lead-based paint can also pose a threat to workers by causing damage to their brains, and nervous and reproductive systems.
- With small changes in work practices, workers can protect themselves and their customers from lead exposure.
- These changes include:
 - Keeping dust to a minimum.
 - Confining dust and paint chips to the work area.
 - Cleaning up during and after work. Special cleanup procedures must always be used.
 - Taking dust wipe samples to make sure cleaning removed lead-contaminated dust. (Dust wipe sampling is described in Section 5D, p. 71.)

Who Should Use This Guide?

- Building maintenance workers and their supervisors
- Painters
- Repair, renovation, and remodeling contractors
- Property managers and owners
- Homeowners
- Local housing agency staff and public health staff

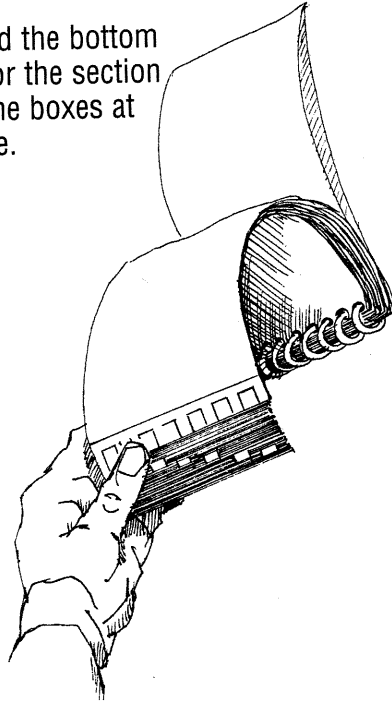
When Should I Follow This Guide?

- To fix a specific problem.
- During routine maintenance or apartment turnover.
- In homes where there may be a young child or a pregnant woman.
- During work supported by Federal funds that must be performed using safe work practices under Federal regulations.

HOW TO USE THIS GUIDE

This guide is divided into 5 sections.

To locate a section, bend the bottom of these pages. Look for the section you want by lining up the boxes at the bottom of each page.



— **The Basics**

— **Before You Start Work**

— **Doing the Work**

— **At the End of the Job**

— **Resources**
(Includes Glossary)

CONTENTS OF THIS GUIDE

- 1. The Basics5**
 - Remember these Principles5
 - Routine Work Practices6
 - Correcting the Cause of the Problem7
 - Restricted Practices9
 - Key Stages of a Job11

- 2. Before You Start Work13**
 - Set Up the Work Area - Interior13
 - Set Up the Work Area - Exterior15
 - Worker Protection17

- 3. Doing the Work19**
 - Painting Jobs
 - Interior Surface Prep19
 - Exterior Surface Prep22
 - Paint Removal23
 - Home Maintenance and Renovation Jobs
 - Walls/Ceilings25
 - Windows29
 - Doors37
 - Stairs/Floors41
 - Trim43
 - High Dust Jobs45

- 4. At The End of the Job47**
 - Cleaning Up47
 - Disposal of Waste49
 - Checking Your Work51
 - Ongoing Monitoring & Maintenance53

- 5. Resources55**
 - A. Glossary55
 - B. For More Information57
 - C. Getting the Word Out65
 - How Owners and Occupants Can Work Together to Improve Lead-Safety in Homes*
 - Notice Prior to Renovation*
 - Why Lead Safety Makes Sense for Property Owners and Contractors*
 - D. More About Technical Topics69
 - Respiratory Protection*
 - Testing Dust for Lead*
 - Setting Up a Dust Room*
 - Building a Door Hold*
 - E. Tool and Supply List75
 - F. Notes and Special Instructions77
 - G. Work Checklist and DisclaimerBack Cover



REMEMBER THESE PRINCIPLES

- 1. ASSUME:** **Paint in Homes Built Before 1978 Contains Lead**
(Unless a lead-based paint inspection shows it doesn't.)
Exposing Anyone to Dust, Especially Children, is Bad

- 2. CHECK:** **Federal, State, and Local Regulations**
 - OSHA has rules for worker safety
 - EPA and your local community have rules for waste disposal

- 3. AVOID:**
 - Creating Dust**
 - Use low dust work practices (for example, mist surfaces with water before sanding or scraping)
 - Spreading Dust**
 - Cover area under work with durable protective sheeting (plastic or poly)
 - Keep dust contained to immediate work area

- 4. PROTECT:**
 - Occupants, Particularly Children**
 - Keep them away from work area
 - Clean up work site before they return
 - Workers**
 - Wear proper respiratory protection for lead dust
 - Keep clean
 - Don't take dust home

- 5. CLEAN UP:** **After All Work**
 - Clean up is particularly important if painted surfaces were broken or wall cavities were opened
 - Take dust wipe samples to make sure that it is safe for children to return

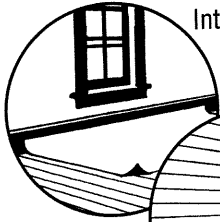
- 6. MAINTAIN:** **A Dry Building**
 - Moisture problems can cause paint failure, building deterioration, and encourage pests**All Painted Surfaces**
 - Well-maintained paint generally does not pose a health risk**Clean and Cleanable Surfaces**
 - Keep floors and painted surfaces smooth
 - Damp mop them often
 - Clean rugs and carpet well

ROUTINE WORK PRACTICES

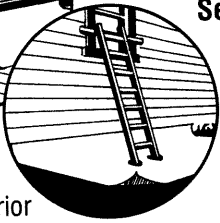
The following pictures appear throughout the Guide and refer to specific sections covering these practices.



Correct the Cause of the Problem. Before work starts, correct the conditions causing damage to the home. See Correcting the Cause of the Problem, p. 7.



Interior

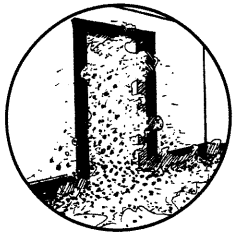


Exterior

Set Up Work Area. Set up the work area properly. See Section 2: Set Up the Work Area - Interior & Exterior, p. 13 and p. 15, respectively.



Clean Up and Clear. Thoroughly clean up the work area using the procedures described in this guide. Then, take dust wipe samples to see if it is safe for children to return. See Section 4: Cleaning Up, p. 47 and Check Your Work, p. 51.



High Dust Jobs. Some activities are likely to create high amounts of dust during the job. See Section 3: High Dust Jobs, p. 45 and follow the guidelines in this section to ensure that this work is performed safely.



Important!! This symbol points out important details where special attention is needed.

CORRECTING THE CAUSE OF THE PROBLEM

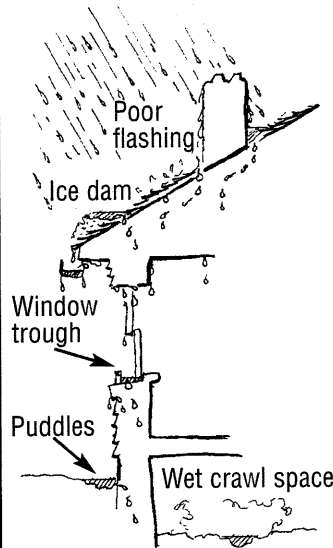
If a job involves repairs to a damaged paint surface, it is important to correct the cause of the damage, or the damage will occur again. Damaged surfaces that contain lead-based paint represent a health threat to the occupants.



The following conditions are examples of potential causes of damage to painted surfaces. Be sure that the planned work will correct these conditions if they are present.

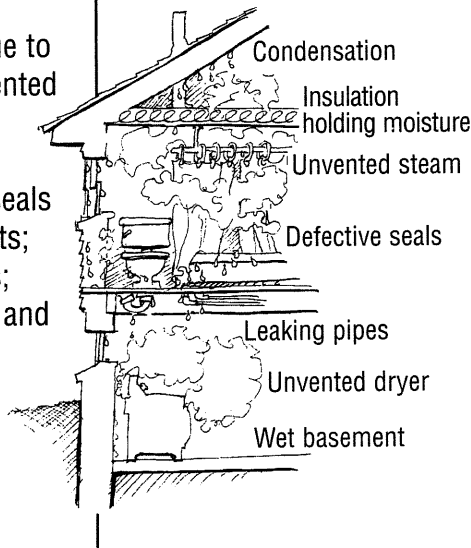
Moisture From Outside

Roof leaks; incorrectly installed flashing; defective downspouts and gutters; water collecting in window troughs; puddles of water at foundations; leaking basement walls; wet crawl spaces.



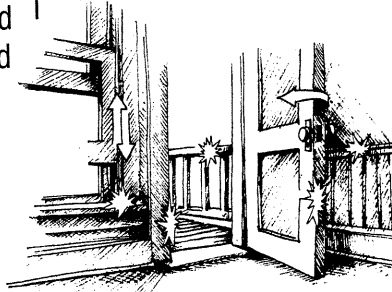
Moisture From Inside

Attic condensation due to poor ventilation; unvented steam from showers and cooking; leaking plumbing and failed seals around tubs and toilets; condensation in walls; unvented dryers; wet and poorly maintained basements.



Rubbing and Impact of Painted Surfaces

Binding doors; unprotected painted walls and trim; and rubbing from opening and closing painted windows.



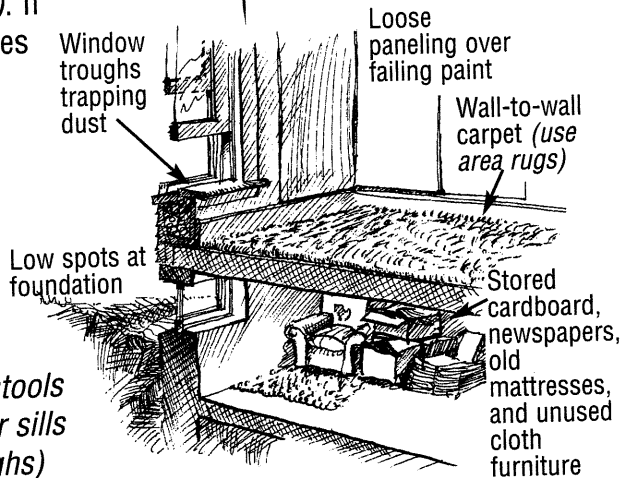
Places that Collect Dust and Paint Chips

Where feasible, repair or remove places where dust and paint chips may accumulate and can't be easily cleaned (such as old wall-to-wall carpet and unused items stored in the basement).

If these places are damp, they may also be home to mold.

Keep flat surfaces (such as window stools or interior sills and troughs)

clean and cleanable.



Structural Damage

Some surface damage may be caused by structural damage such as wood rot, termites, foundation settlement, and foundation shift. These problems must be addressed before surface repairs are made.



RESTRICTED PRACTICES

Goal: Don't use unsafe work methods. Some work methods create such high levels of dust that they must not be used when working on surfaces that may contain lead-based paint.

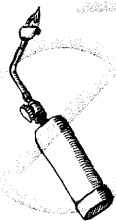
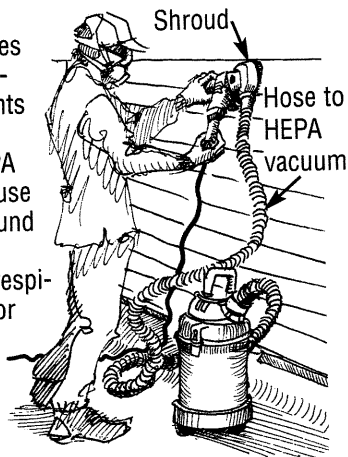


Don't Use Power Sanders or Grinders Without HEPA Vacuum Attachment.

These machines create a lot of dust that can contaminate a building and the ground around a building endangering workers, neighbors, and occupants.

Controlled Sanding or Grinding With HEPA Vacuum Attachment Is Acceptable.

If the sanding or grinding machines are "shrouded," which means surrounded with a barrier that prevents dust from flying out around the perimeter, AND attached to a HEPA vacuum, they can be used. Because some dust may still blow out around the perimeter, workers near the machine should wear half-mask respirators rated by NIOSH as N100 (or HEPA) at a minimum. Also, the work area must be completely isolated if the machine is used inside (see Section 3: High Dust Jobs, p.45). Because these tools can create high levels of dust and require additional precautions, their use is beyond the scope of this guide.



Don't Use Open Flame/High Heat Removal of Paint.

There is no acceptable use of an open flame torch or high temperature heat gun (above 1100 degrees F) to remove paint.

- It produces toxic gases that a HEPA dust canister on a respirator cannot filter out on its own (a second, organic filter is necessary).
- It creates high levels of very toxic dust that is extremely difficult to clean up.
- It can burn down a house.

Do Use a Heat Gun on Low Setting.

A heatgun set below 1100 degrees F may be used with caution. It is recommended for small areas only, such as the edge of a door, the top of a window stool, or the friction surface of a window jamb.



Methylene Chloride

Don't Use Paint Strippers Containing Methylene Chloride.

Many paint strippers are potentially dangerous. Strippers containing methylene chloride should not be used because this chemical is extremely toxic and is known to cause cancer.



Other Chemical Strippers with Appropriate Precautions Are Acceptable.


Chemical strippers without methylene chloride are safer to use, as long as the precautions printed on the container are followed. Take extra precautions to mask areas near stripping.



Uncontained Hydroblasting

Don't Use Uncontained Hydroblasting.

Removal of paint using this method can spread paint chips, dust, and debris beyond the work area. This result makes it difficult to clean up these hazards at the end of the job.



Contained Pressure Washing Is Acceptable.

Removal of paint using contained pressure washing within a protective enclosure to prevent the spread of paint chips, dust, and debris may be done. Because this method requires additional precautions that are beyond the scope of this guide, it should only be used by certified lead abatement workers.



Uncontrolled Abrasive Blasting

Don't Use Uncontrolled Abrasive Blasting.

This work method can also spread paint chips, dust, and debris beyond the work area. This result makes it difficult to clean up these hazards at the end of the job.



Contained Blasting Is Acceptable.

Contained abrasive blasting within a protective, locally exhausted enclosure to prevent the spread of paint chips, dust, and debris may be used. Because this method requires additional precautions that are beyond the scope of this guide, it should only be used by certified lead abatement workers.



Avoid Extensive Dry Scraping or Sanding.

Extensive dry scraping or sanding create large amounts of paint chips, dust, and debris that are hard to contain.



Use Wet Methods or Limited Dry Scraping and Sanding.

Mist surfaces before scraping and sanding. Continue to mist while working. Dry scraping or sanding of very small areas (for example, around light switches or outlets) may be done if flat surfaces below these areas are covered with protective sheeting. These methods should be avoided on areas larger than 2 square feet per room, and workers must have adequate respiratory protection.



KEY STAGES OF A JOB

Quality work requires thinking through the job from start to finish. Here are the basic stages of the jobs described in this guide.

Before Starting

- Find the causes of damage
- Prioritize work
- Hand out lead hazard information pamphlet (see note below)

Work

- Set up work area
 - Separate work space from occupied space
 - Isolate high dust areas
- Correct cause(s) of problem(s)
- Complete the job using safe work practices, such as those shown in this guide

Finish the Job

- Clean up thoroughly
- Dispose of waste safely
- Check quality of work and correct problems

Maintain the Work

- Educate occupants about risks from lead-based paint
- Maintain a safe and healthy home

Renovation Notice About Lead Safety

Note: Federal law requires that owners and occupants of a house or apartment built before 1978 receive the pamphlet *Protect Your Family From Lead In Your Home* prior to the start of renovation work. The requirement applies to any work that will disturb a painted surface larger than 2 square feet when the work is done by:

- Contractors who have been hired to do any kind of work. Among others, this can apply to painting, drywall, and electrical trades.
- Owners of rental properties who have work performed by maintenance staff.

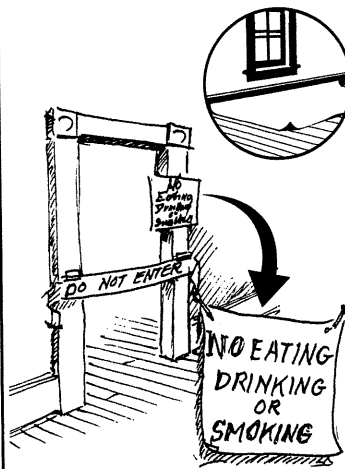
See p. 67 for more information about this requirement.

SET UP THE WORK AREA – INTERIOR

Restrict Access

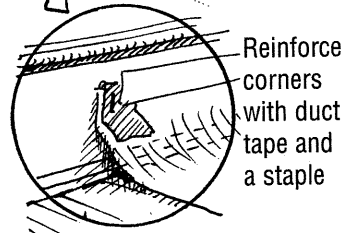
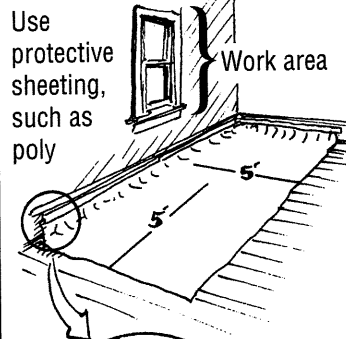
- Ask occupants to leave the room where work will be done.
- Have them stay out until final cleanup.
- Place "DO NOT ENTER" tape across doorway or post sign.

Caution: If the work will create a large amount of dust, follow the guidelines in Section 3: High Dust Jobs, p. 45.



Protect Floor

- Place protective sheeting on floor extending about 5 feet from the work area.
- Tape protective sheeting to the baseboard under work area using masking tape (or durable tape where masking tape doesn't work).



Protect Furnishings

- Remove drapes, curtains, furniture, and rugs within 5 feet of work area.
- Cover any furniture within 5 feet of work area that cannot be moved.

Cover furniture with protective sheeting



Stock the Work Area

- Put all necessary tools and supplies on protective sheeting before beginning work to avoid stepping off the protective sheeting.

Tracking

- To avoid tracking dust off the protective sheeting, wear non-skid shoe covers on protective sheeting and remove them each time you step off the protective sheeting.

OR

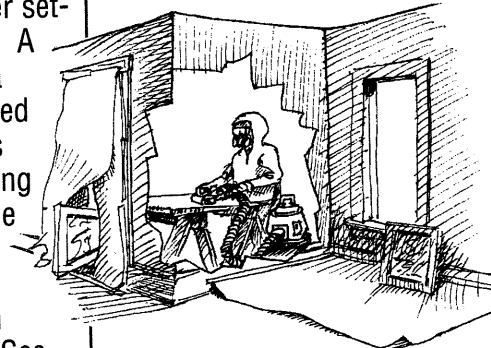
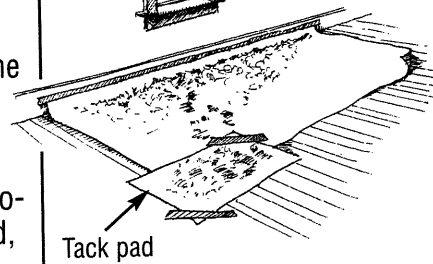
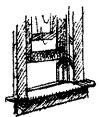
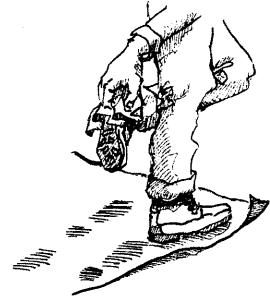
- Wipe both top and bottom of shoes with a damp paper towel each time you step off the protective sheeting.

OR

- Clean off shoes using a tack pad (a large sticky pad that helps remove dust).

OR

- Remove shoes every time you step off the protective sheeting.



Set Up Dust Room (Optional)

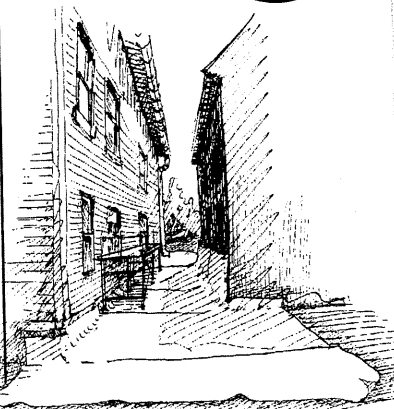
- When working on components that can be moved, such as doors and window sashes, consider setting up a dust room. A dust room is an area isolated from occupied areas where workers can do dust generating work. The door of the room is covered with a flap and the floor is covered with protective sheeting. See Section 5D: Setting Up a Dust Room, p. 73.

- Using a dust room contains dust and paint chips, and makes cleanup easier. It also helps protect occupants, as well as other workers.

SET UP THE WORK AREA — EXTERIOR

Protect Ground

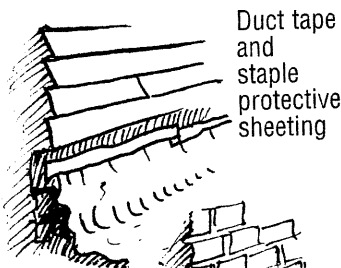
- When working on the ground floor, lay protective sheeting 10 feet from work surface or as space permits. When working on the 2nd story or above, extend the sheeting farther out.
- Vertical shrouding on scaffolding should be used if work is close to a sidewalk, street, or another property, or the building is more than three stories high.



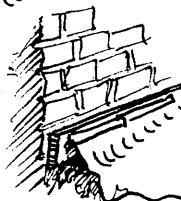
Important: Covering the ground protects the soil from contamination by lead-based paint chips and dust.

Attach Protective Sheeting to Wall

- Protective sheeting can be taped and/or stapled to wood siding or ribbon board. A wood strip may need to be attached to a masonry wall.



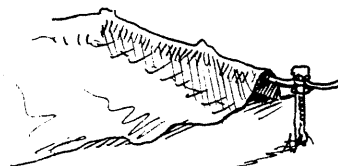
Attach wood strip to brick to secure protective sheeting



Build Curb

- Build a curb around work perimeter when a sidewalk or another property is near, or when wind may blow debris off protective sheeting.

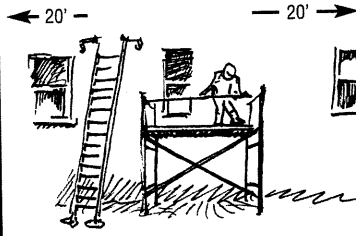
Curb edge of protective sheeting



Caution: This may pose a tripping hazard.

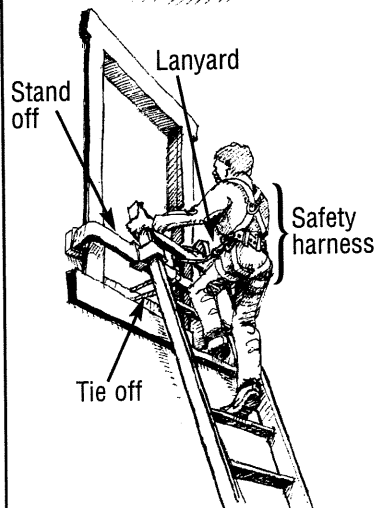
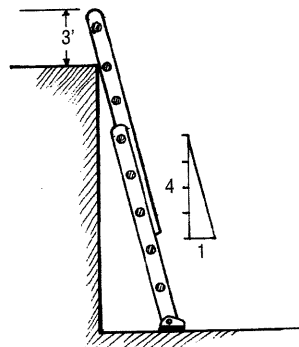
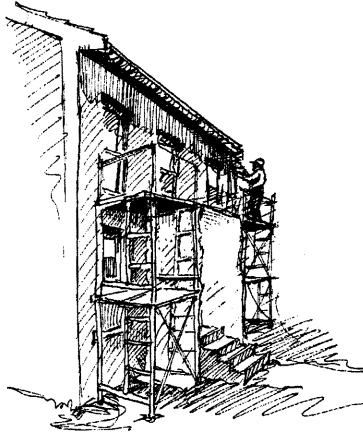
Cover Windows and Doors

- All windows and doors within 20 feet of the work area must be closed. If they cannot be closed, seal with protective sheeting during work.
- If an entrance must be used that is closer than 20 feet, place a shroud above and on the sides of the entrance.



Use Ladder Safely

- Don't use a metal ladder near power lines.
- Check feet and rungs of ladder to make sure they are sound.
- Place the base of the ladder at a distance from the wall using a height to base ratio of 4:1.
- Ladder should extend 3 feet past the top of the surface area where work will be done.
- If using protective sheeting to cover the ground, cut slots in the sheeting and place the ladder feet directly on the ground—not on top of the protective sheeting.
- Tie off the top of the ladder, where possible.
- If the work is taking place at heights above 10 feet, tie off the ladder and secure yourself with a lanyard and harness.



WORKER PROTECTION

Protect Your Eyes

- Always wear safety goggles or safety glasses when scraping, hammering, etc.

Keep Clothes Clean

- At end of work period, remove dusty clothes and/or vacuum off dust. Wash them separately. Do not use compressed air to blow dust off clothing.

OR

Use Disposable Covers

- Wear disposable protective clothing covers. Disposable protective clothing covers can be stored in a plastic bag and reused if fairly clean and there are no rips. Small tears can be repaired with duct tape.
- Wear painter's hat to protect head from dust and debris.

Wear Respiratory Protection

- When work creates dust or paint chips, workers should wear at least a NIOSH-approved respirator for lead work. See Section 5D: Respiratory Protection, p. 69.

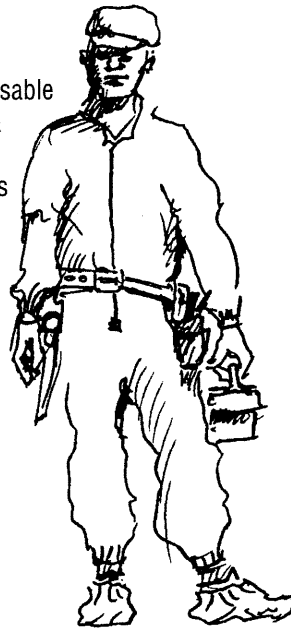
Post Warning

- Post sign and avoid eating, drinking, or smoking on site.

Wash Up

- Wash hands and face each time you stop working.

Disposable suit & shoe covers



Sign at work site entrance

BE SAFE WHEN YOU START WORK

INTERIOR SURFACE PREP

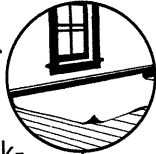
A wall or ceiling is sound, but has holes, uneven surfaces, or flaking and peeling paint.

SOLUTION

Prepare wall or ceiling to create a sound, intact surface for painting. Use methods that create a minimum amount of dust.

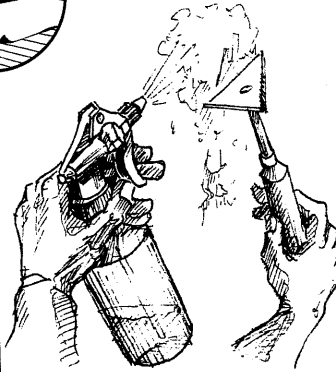
Set Up

- See Section 2, p. 13.



Remove Deteriorated Paint

- Wet scrape any loose, peeling, or flaking paint.



Fill and Patch Holes

- If removal of damaged edges is necessary, mist surface before removal.
- Skim and fill holes and cracks less than 1/16 inch wide with a non-shrinking spackle compound.
- If sanding is necessary to feather edge, use wet abrasive sponge or wet-dry sandpaper with water.



Prep Surface

- Clean wall, particularly in kitchen area.
- De-gloss surfaces as necessary (use liquid sandpaper or wet-dry sandpaper with water).



Important: Allow surface to thoroughly dry before priming.

- Prime surface using high-grade primer.
- Apply top coat. Use one or two coats as necessary.

Clean Up and Clear

- See Section 4, p. 47.



INTERIOR SURFACE PREP CONT'D

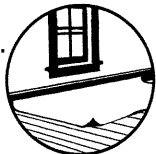
A wall or ceiling has cracking, peeling, or alligating paint, but most of the surface is sound.

SOLUTION

Use a coating designed for longer durability than paint. Some of these coating systems include mesh.

Set Up

- See Section 2, p. 13.



Liquid Coating

Test Surface

- Where a long-lasting system (sometimes called encapsulant) is to be brushed, sprayed, or rolled, surface preparation is very important.
- If an encapsulant is used, use one that is approved by a state government. If your state does not have a list of approved encapsulants, it is recommended that you check with a state that does. Contact the National Lead Information Center at 1-800-424-LEAD for the telephone numbers of states with lists.
- A sample area should be tested before application. Follow manufacturer's instructions exactly.

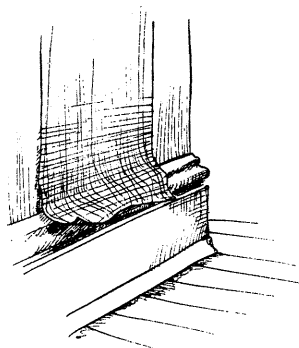
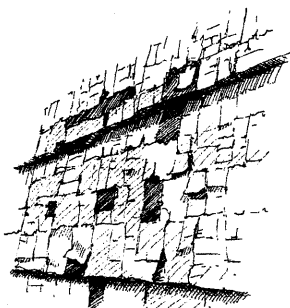
Apply System Base Coat

- Apply system base coat with a high nap (approximately 3/4 inch) roller. Follow the product instructions.

Mesh System

Apply Mesh

- Where there is extensive cracking or alligating, consider using a system that includes mesh because it can add strength and durability.
- Cut the mesh leaving a 2 inch overlap at ceiling and baseboard.
- Install so that mesh is plumb.

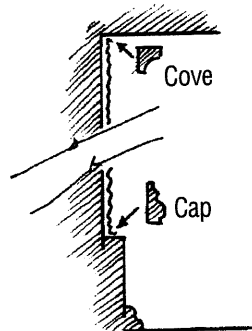
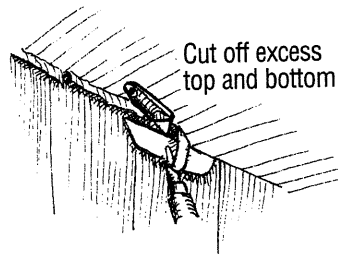
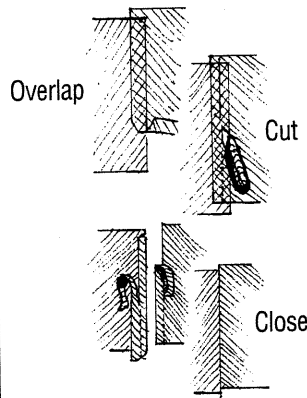


Important: For mesh systems, follow manufacturer's instructions exactly.



Apply Mesh Cont'd

- Press mesh into the base coat with a wall-paper brush, spackle knife, or roller.
- Overlap seams by 1 inch. Cut down the center of the seam and remove the 2 waste strips. Let seams butt against each other.
- Using a spackle knife, press the mesh at the bottom and top. Then cut off the excess.
- Roll on the top coat. Make sure that there is complete and even coverage.
- If there is a risk of further peeling, the top edge of mesh can be reinforced with cove or crown molding, and the bottom reinforced with base cap.



Clean Up and Clear

- See Section 4, p. 47.



EXTERIOR SURFACE PREP

Exterior wood surface is chipping and peeling and may be painted with lead-based paint.

SOLUTION

Prepare a sound, intact surface for painting. Use methods that create minimal dust.

Set Up

- See Section 2, p. 15.

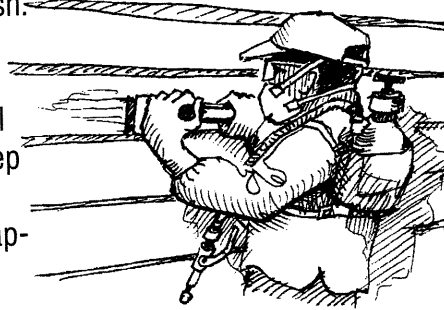


Clean Surface

- Clean wood with detergent (or lead-specific cleaner) and scrub brush.

Wet Scrape

- Wet scrape woodwork and siding. Mist small areas frequently to keep down dust. Using a pump sprayer in a knapsack is convenient.



Mist and Sand

- Wet sand using wet-dry sandpaper or wet sanding sponges. A power sander may be used if attached to a HEPA vacuum, and the worker is wearing respiratory protection.

Paint

- Prime and paint.

Clean Up and Clear

- See Section 4, p. 47.



Dispose of Water

- If you dislodge paint using pressure washing, water must be collected and may need to be tested (see local regulations for water disposal procedures in your area).



P A I N T R E M O V A L

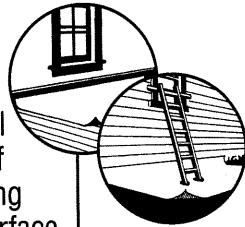
Areas of paint are peeling or flaking or there is evidence that a child has been chewing on a painted surface. An example of a surface accessible to children is the inside nose of a window stool (inside sill).

SOLUTION

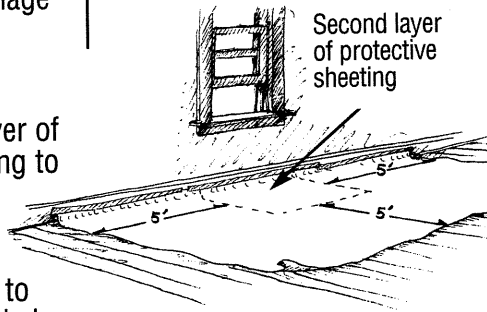
Remove all paint using methods that do minimum harm to the surface, create minimal dust, and are safe for workers.

Set Up

- See Section 2, p. 13 or p. 15.
- When using chemical strippers, the edge of the protective covering below the painted surface must be tightly fastened to the wall so that the stripper doesn't damage other surfaces.



- Recommendations:
 - Use a second layer of protective sheeting to collect stripping waste. The first layer remains in place to protect surfaces below.
 - For removable components, consider having paint stripped off-site or installing an entirely new component.



Chemical Removal

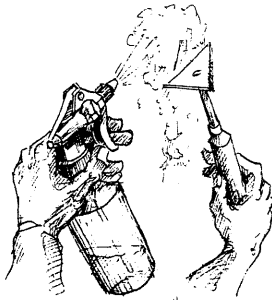
- If a large area of paint is to be stripped, consider hiring a professional.
- Follow the manufacturer's instructions carefully when using chemical paint strippers.



Caution: If using a caustic stripper, neutralize the surface according to the manufacturer's directions before applying new paint.

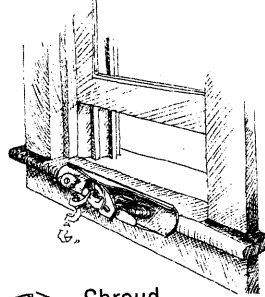
Chemical Removal Cont'd

- After stripping paint from wood, a paint residue will remain in the wood. Use caution when sanding the bare wood because it may contain lead residue.



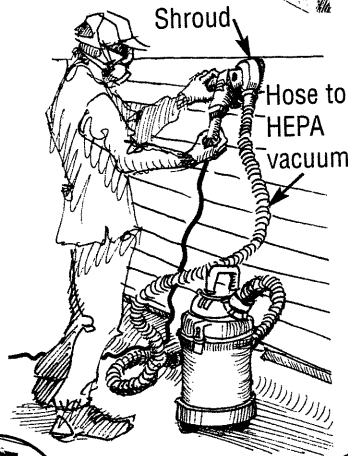
Hand Stripping

- Paint can also be removed with a paint scraper. Be sure to mist areas where paint is to be removed. Using a hand plane removes all paint and all residue. It also creates very little dust.

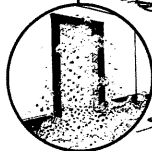


Mechanical Stripping

- When using power tools, such as sanders or grinders to remove or feather paint, make sure the tool is shrouded and attached to a HEPA vacuum. Respiratory protection is still necessary.

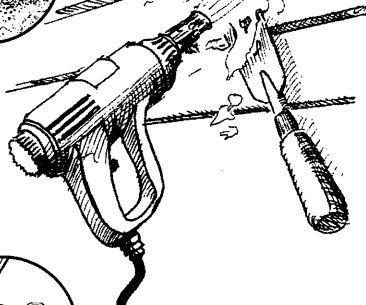


Caution: High dust potential.



Heat Stripping

- When using a heat gun to remove paint, be sure the temperature setting is kept below 1100 degrees F.



Clean Up and Clear

- See Section 4, p. 47.

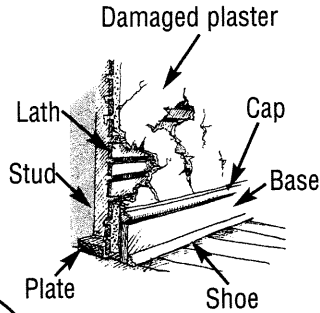


DAMAGED INTERIOR WALL OR CEILING

Wall or ceiling area is too badly damaged to repair, and demolition would create a large amount of dust.

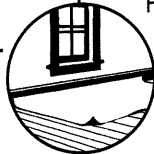
SOLUTION

Install a new durable surface over the damaged area using methods that create little dust and do not require demolition.



Set Up

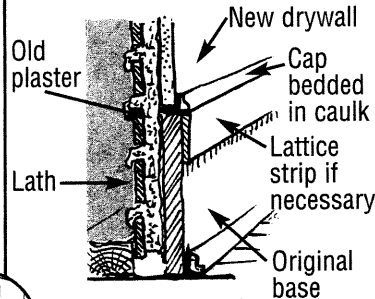
- See Section 2, p. 13.



Cover With Drywall

- Mechanically fasten drywall or veneer board through damaged plaster to studs.
- Seal the perimeter, particularly the bottom edge.

Drywall laminate sits on old base

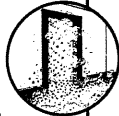


—On Base

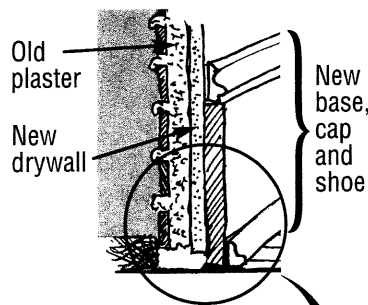
- Avoid removing existing base.



Caution: High dust potential.



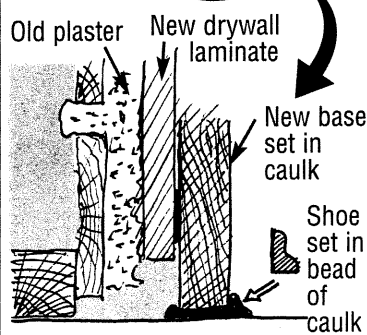
New base over drywall laminate



- Where drywall laminate will end above existing base, install shoe or cove molding into bead of caulk to seal.
- If laminate comes close to flush with base face, a strip of lattice bedded in caulk can be used to seal joint.

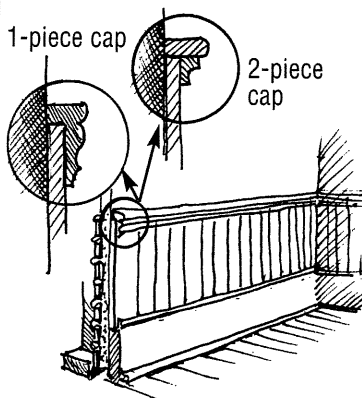
—Behind Base

- Where base will be replaced, bed the new base in bead of caulk on the back and bottom. Then, bed shoe molding in a bead of caulk to seal.



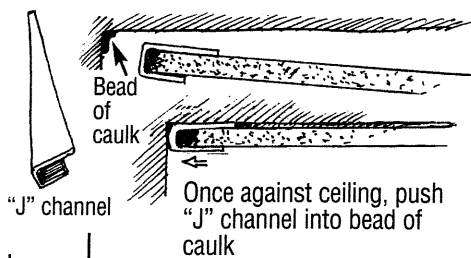
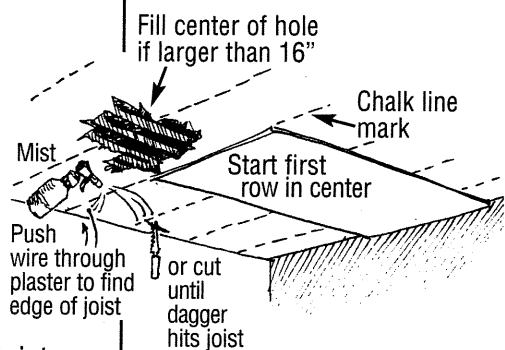
Install Wainscoting

- Where bottom 3 or 4 feet of wall is damaged beyond repair, the wall can be enclosed with wainscoting. The wainscoting can be installed above the existing baseboard.
- Bed the lower edge in a bead of caulk with a trim piece also bedded in caulk.
- Finish top with cap molding.



Repair Holes in Ceilings

- When laminating drywall to ceilings, it is critical to screw into joists, not lath.
- Old joists may be irregularly spaced, so each joist center must be located.
- A drywall dagger can be used to find the joist edge, as can a heavy gauge wire pushed through the plaster.
- The drywall edges should be taped and spackled.
- If walls will not be spackled, perimeter edges can be finished with "J" channel bedded in a bead of caulk.



Clean Up and Clear

- See Section 4, p. 47.

DETERIORATED EXTERIOR SURFACES

An exterior painted surface is badly damaged.

SOLUTION

Whenever possible, repair the surface, prep, prime, and paint exterior trim and siding, and then maintain the surface. This method is the preferred approach.

When a surface is too badly damaged to repair, install vinyl or aluminum siding, or aluminum wrap to create a safe, durable covering that protects the surface and does not cause further deterioration.

Note: Siding must be installed correctly or it may lead to wood rot and/or interior paint failure. Siding may also become home to insects and mold. Correct installation is critical in both hot and cold climates.

Cover Deteriorated Surface With Siding

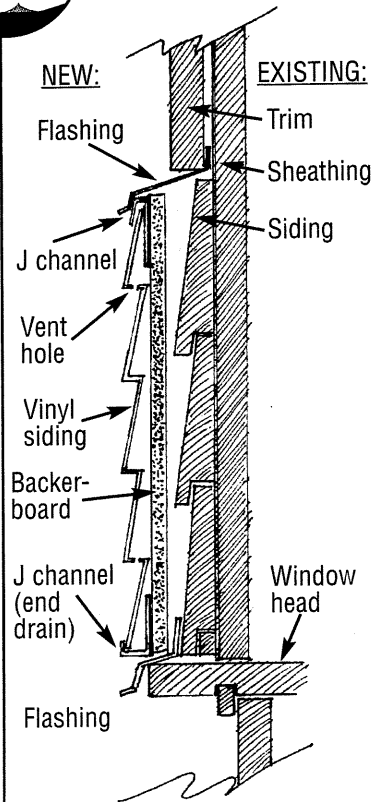
Set Up

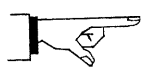
- See Section 2, p. 15.



Install Siding

- Carefully follow the manufacturer's instructions for installing siding over an existing surface.
- Use a styrene backboard with an R-value of at least R2.
- Take care to properly install flashing, especially at horizontal trim and window and door heads.
- The siding system must be well vented but sealed at the bottom to prevent flaking and peeling paint from falling from behind the siding to the ground.
- Be sure that water can drain out.





Important: The entire home should be well ventilated to prevent moisture build-up that can cause structural damage and/or paint failure.

Clean Up and Clear

- See Section 4, p. 47.

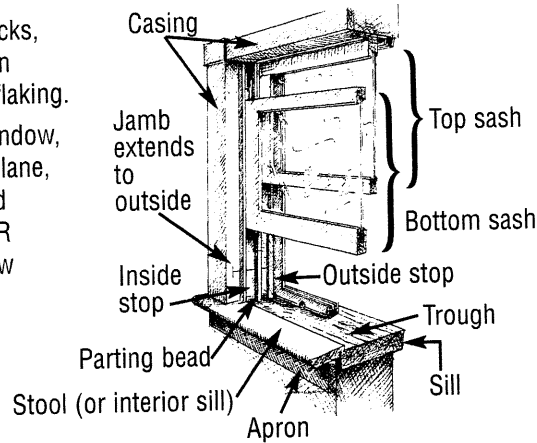


STICKING WINDOW

Window sticks, and paint on window is flaking.

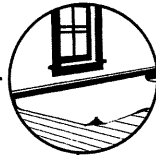
SOLUTION

Remove window, scrape or plane, repaint, and reinstall, OR install a new window.



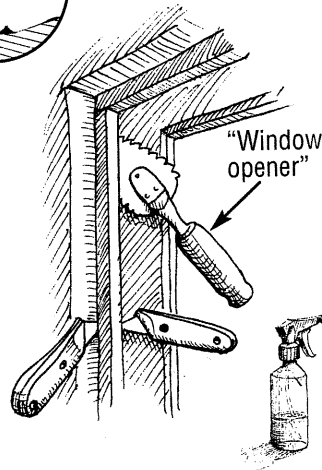
Set Up

- See Section 2, p. 13.



Loosen Painted Sashes

- If window is painted shut, mist and cut window joint with utility knife. Then open joint between sash and stop with a "window opener." Mist while working.



Remove Inside Stop Molding

- Mist and remove stop molding from sides and head. Dispose of properly unless it has historic value.

Remove Bottom Sash

- If counterweight cord or chain is attached to the sash, knot it or tie it to a stick when removing from sash so it does not get pulled into the weight compartment.



Remove Top Sash

- Mist and remove parting bead. Then remove the top sash.

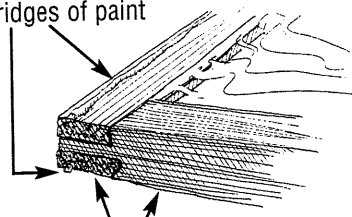
Wet Scrape or Plane

- Set sash on a work bench, clamp, and wet scrape all surfaces. Or use a power planer attached to a HEPA vacuum.



Caution: High dust potential. This work can be done in a dust room. See Section 5D: Setting Up a Dust Room, p. 73.

Wet scrape these ridges of paint



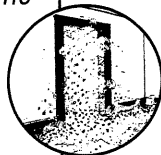
Seal this bottom edge very well, particularly the end grain. Use linseed oil or other sealant.

Repair, Reglaze, Seal, and Paint

- Reglaze and repair as necessary. Wet sand, prime, and paint sash and jamb. Seal, but do not paint sash edges.

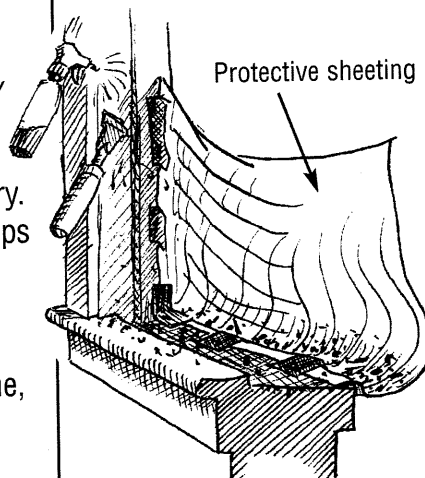


Important: Seal bottom edge of sash, particularly end grain.



Repair and Paint Jamb

- Repair jamb if necessary.
- To prevent dust and chips from falling outside the window, install a scoop of protective sheeting.
- Then wet scrape, prime, and paint.



Reinstall Sash

- Reinstall sash with new or wet scraped and repainted stop and parting bead.

Clean Up and Clear

- See Section 4, p. 47.



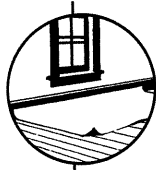
LOOSE WINDOW

Loose sashes (lower and upper) do not operate smoothly, and they allow heat loss. Also, sashes rubbing against a painted jamb create paint dust.

Install sashes in window compression jamb liner to seal window and allow sashes to move easily without rubbing against jamb. If sashes or window components are badly deteriorated, replace window.

Set Up

- See Section 2, p. 13.



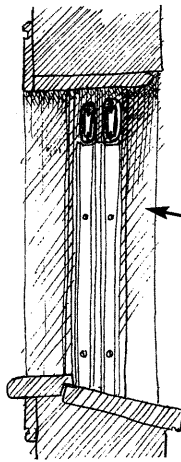
Install Window Jamb Liners

Remove Sashes and Paint

- Follow directions on pages 29 and 30.

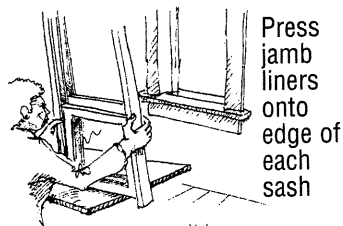
Cut Jamb Liners

- Cut liners to fit in jamb (1/4 inch short of dimension). If pulley system is being saved, cut off directly below pulley.

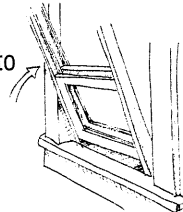


Install Jamb Liners

- Press jamb liners onto sash.
- Attach jamb liners with brass screws on top and bottom of each side.

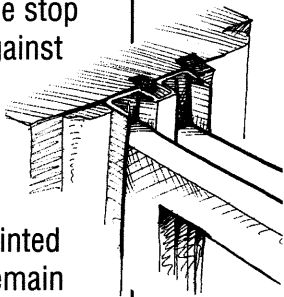


Slide sashes and liners into jamb and put two brass screws into each side

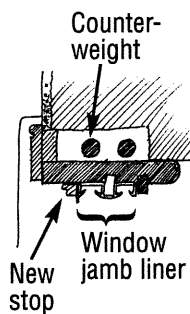


Install Stop Molding

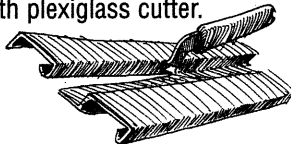
- Install new inside stop molding tight against jamb liner.



- If top sash is painted shut and is to remain fixed, adjust the above steps as follows:
 - Cut away flange between channels of jamb liner.
 - Leave parting bead intact and install bottom sash as above.



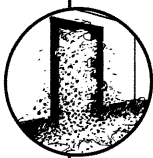
Cut flange of jamb liner with plexiglass cutter.



Replace Sash/Window

Choose an Option

- If the sashes or other components are too badly deteriorated to save, consider one of the following options:
 - Install new sashes in tilt-in jamb liners.
 - Replace sashes, stops, and parting bead with a vinyl or aluminum window unit.
 - Replace entire window including jamb casing, stool, and apron.

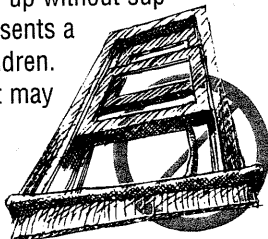


Clean Up and Clear

- See Section 4, p. 47.

WINDOW WON'T STAY OPEN

Window sash is loose and won't stay up without support. Propping the window open presents a danger to occupants, particularly children. When a window jamb liner is used, it may not be sufficient to keep the window open. (See page 31.)

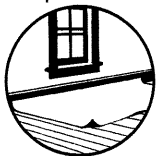


SOLUTION

Repair counterweight system or install hardware so the window will stay open securely, or replace window.

Set Up

- See Section 2, p. 13.



Option #1: Reinstall Counterweight System

Open Counterweight Panel

- Find top of panel. Mist and scrape paint from top edge to find screw or nail holding in panel. Remove screw and pry off panel.

Vacuum

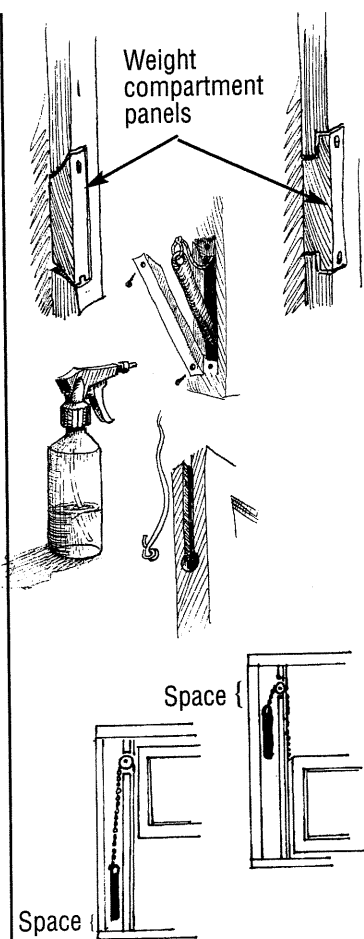
- Vacuum weight compartment with HEPA vacuum.

Remove Counterweight System

- Remove old rope or chain from counterweight and edge of sash.

Reinstall Counterweight System

- Cut chain so weight is above bottom of weight compartment when open and weight is below pulley when closed.



BRING THE WORK