



BALTIMORE CITY HEALTH DEPARTMENT

**LEAD HAZARD
ABATEMENT REGULATIONS**

2006

RULES AND REGULATIONS GOVERNING THE ABATEMENT OF LEAD HAZARDS

Pursuant to the power conferred upon the Commissioner of Health by Section 106 of Title 2 of the Health Code of Baltimore City the following rules and regulations are hereby adopted:

Lead Hazard Abatement Regulations

I. Definitions.

- A. In this regulation, certain words, terms and phrases, and their derivatives shall be construed and given their meaning specified below:
- 1) abate/abatement-means the elimination of exposure to lead hazards by the appropriate reduction of, removal of, or encapsulation of lead containing substances in conformance with this regulation
 - 2) accessible surface-any protruding interior or exterior surface, such as an interior window sill that a child can mouth or chew.
 - 3) child/children-a person or persons under the age of six (6).
 - 4) Commissioner-the Commissioner of the Baltimore City Health Department or his/her designee.
 - 5) Department -the Baltimore City Health Department.
 - 6) EBL child-a child who has a blood lead level greater than or equal to 10 µg/dL or higher.
 - 7) elevated blood lead (EBL) level-excessive absorption of lead in the blood in concentrations equal to 10 µg/dL or higher.
 - 8) environmental investigation-a targeted survey of an EBL child's present and/or past environment, conducted by the Commissioner or Department to determine the sources and conditions that cause or have caused lead exposure. It includes the administration of a questionnaire, environmental sampling and other measures.
 - 9) encapsulate or encapsulation to cover surfaces with durable material and to seal or caulk seams with durable material so as to control and prevent exposure to lead hazards.
 - 10) friction surface - any interior or exterior surface, such as a window or stair tread, subject to abrasion or friction.
 - 11) impact surface-any interior or exterior surface, such as surfaces on doors, subject to damage, repeated impact or contact.
 - 12) lead-based paint -paint, varnish, shellac or similar coating containing more than 0.06% of lead in the final dried solid.
 - 13) lead hazard-any condition that causes exposure to lead from lead contaminated dust; bare lead contaminated soil; other environmental sources; or lead based paint that is deteriorated or intact lead-based paint present on accessible surfaces, or impact surfaces that would result in adverse human health effects.
 - 14) lead dust-dust containing lead generated by the deterioration of lead-based paint or by other environmental factors.
 - 15) lead dust clearance test-a lead dust test conducted by the Department to confirm that levels of lead dust fall within the range of levels permitted by federal laws and regulations as those laws and regulations may be revised in the future.
 - 16) occupant-any person who uses or who has the right of possession of all or any part of a property.

- 17) operator-any person who has charge, care, or control of all or any part of a property.
- 18) owner-any person who has a legal or equitable interest in a property, is recorded in the land records as holding title to the property, or otherwise has control of the property, with or without accompanying possession of a property, including: a guardian of the person or estate or an owner, a trustee, including a trustee in bankruptcy of an owner, or the personal representative of the estate of an owner. In the case of a toy, appliance, item of furniture or other household item which is the property of a tenant, the term "owner" shall mean tenant for the sole purpose of the abatement of a lead-based paint violation existing thereon.
- 19) person-any individual, sole proprietorship, corporation, limited liability company, firm, partnership, association, organization, joint venture, or other entity or group acting as a unit, executor, administrator, trustee, receiver, guardian, or other representative appointed by law.
- 20) person responsible for compliance-an owner and/or operator of a property.
- 21) secondary residence-a caretaker's home, daycare center or other dwelling, institution or property frequented by an EBL child.
- 22) µg-standard abbreviation for micrograms.
- 23) XRF analyzer-a portable instrument that determines lead concentration using the principles of X-ray fluorescence.

B. If a term is not defined in this regulation and is defined in the Building, Fire and Related Codes of Baltimore City, the term has the meaning given it therein.

II. Environmental investigations shall be conducted pursuant to the identification of an EBL child.

In the event a child has been identified as having an elevated blood lead (EBL) level, the Commissioner shall request the Department to conduct an environmental inspection. The environmental inspection shall be of the child's current residence and may include any secondary residence; any residence in which the child was living at the time of the blood test which identified an EBL level and/or any residence the child resided in 30 days prior to any blood test which identified an EBL level.

III. Determination that lead hazards exist.

A determination that lead hazards exist in a property (including in common areas of multi-family dwellings) shall be based upon one or more of the following:

- 1) readings of the X-RF analyzer taken during the BCHD environmental inspection which indicate a lead content greater than 0.7 mg/cm²;
- 2) analysis of paint samples taken during the BCHD environmental inspection indicating more than 0.5% lead;
- 3) analysis of dust samples taken during the BCHD environmental inspection indicating levels higher than acceptable federally established laws and regulations as those laws and regulations may be revised in the future.

IV. Issuance of a "Violation Notice and Order to Abate Lead Hazards."

If the Commissioner determines the existence of lead hazards, the Commissioner shall find the person responsible for compliance to be in violation of terms regulation and the Commissioner shall issue a "Violation Notice & Order to Abate Lead Hazards" to that person notifying that person of the existence of lead hazards and ordering the abatement of said hazards within a time period not to exceed 30 days, unless otherwise ordered by the Commissioner. Such lead hazards shall be abated in conformance with this regulation.

V. Responsibility of owners and operators.

Every owner and operator of any property is obligated, jointly and severally with all other owners and operators of that property to comply with all notices and orders issued by the Commissioner with regard to the abatement of lead hazards from the property.

VI. Form of a violation notice.

Violation notices must be in the form provided by Section 123 of the Baltimore City Building Code, Building Fire and Related Codes of Baltimore City.

VII. Service of a violation notice.

Violation notices must be served on the owner or operator, or other person responsible for compliance as provided by Section 123 of the Baltimore City Building Code, Building Fire and Related Codes of Baltimore City.

VIII. Standards, methods and requirements for abatement.

- A. The minimum mandatory standards, methods and requirements for every abatement of lead hazards, whether or not that abatement is being carried out in response to a notice issued by the Commissioner, an agency of government, a court, or voluntarily are as follows:
 - 1) Posting of dwelling or secondary residence under abatement
 - a. A person engaged in the abatement of a lead-based paint violation shall post 20-inch by 14-inch caution signs immediately inside the entrances and exits of the property under abatement. Such signs shall be conspicuously placed and shall inform persons entering or exiting the property that an abatement of a lead hazard violation will be or is being performed.
 - b. Except in emergency situations, signs shall be posted at least three days in advance of commencing the abatement project.
 - c. Such signs shall remain posted until the Department issues a written notice in conformance with Section X below to the person responsible for compliance.
 - 2) General
 - a. If the surface requiring abatement is subject to a violation or is found to be in violation of the Baltimore City Building, Fire, and Related Codes, and that code violation is likely to cause deterioration of surfaces, the code violation must be corrected prior to the abatement of the lead hazard violation unless the Commissioner determines that the correction of the violation is more appropriate after the abatement process. Examples of such code violations include but are not limited to: plumbing leaks which affect painted or plastered surfaces and structural defects which cause plaster to crack or break.
 - b. Work shall be done in progression through the dwelling or secondary residence beginning with the area farthest from the entrance. In a multi-story dwelling or secondary residence, work shall begin on the uppermost floor in the area farthest from the stairway.
 - c. Furnishings, including wall-to-wall carpeting, must be removed from each room or area as it is prepared for abatement. Those furnishings that cannot be moved (e.g., built-in furniture) must be covered with plastic at least 6 mils. thick and sealed with tape. Furnishings should be thoroughly cleaned to remove lead dust before returning them to a room that has undergone abatement.
 - d. Each area that is to be abated shall be sealed with plastic at least 6 mils. thick and taped prior to abatement in order to contain the lead dust and abatement residue.
 - e. All cabinets, closets and drawers must be sealed with tape so as to prevent contamination by lead dust and/or lead particles.
 - f. In the case of a rental property, the tenant is responsible for the removal of all ingestible items from any room or area under abatement prior to the commencement of the abatement.
 - g. The entire floor of the work area shall be covered with plastic at least 6 mils. thick, and all seams and edges shall be secured with tape or staples.
 - 3) Prohibited and Permitted Methods of Abatement

- a. Persons performing abatement of lead-containing substances may not use the following methods: open flame burning; dry sanding - except as allowed in section 5) a. below; open abrasive blasting- except as allowed in section 5) a. below; uncontained hydro-blasting; methylene chloride for interior use except that methylene chloride may be used in interior work areas for localized touch-up; dry scraping; heat gun operating at or above 1,100°F.
- b. A person performing abatement containing-containing substances shall only use the following methods: replacement with a part free containing-containing substances; removal of lead-based paint using an approved removal method; reversal of component parts; or encapsulation of the surface. Not all of these options are permitted or suitable for all surfaces. Please see specific surface descriptions below for limitations as to allowable abatement method.

4) Windows

- a. Acceptable abatement methods are replacement and/or removal of lead-based paint,
- b. Windows must be completely abated, including inside, outside, and sides of sashes; window frames must be abated to the outside edge of the frame, including slides, sash guides and window wells.

5) Walls/ceilings

- a. Unless replaced or encapsulated, walls or ceilings may only be abated by using the following techniques: heat gun operating below 1,100°F; non-flammable chemical strippers which do not contain methylene chloride, except that chemical strippers containing methylene chloride may be used for localized touch-up; sander equipped with HEPA vacuum; vacuum-blasting in exterior work areas only; or contained hydro-blasting in exterior work areas only; wet-scraping of loose material if scraping is followed by encapsulation.
- b. If abating walls and ceilings by encapsulation, only the following materials may be used: gypsum board; fiberglass mats; canvas backed vinyl wall coverings; Formica ; tile; paneling; or other durable material that does not readily tear, chip, or peel.

6) Woodwork and wood trim

- a. In addition to removal, replacement, or encapsulation, a woodwork surface may be abated by reversal of its component parts so long as no lead-containing surface remains exposed at the completion of the process, and all seams are caulked and sealed.
- b. A woodwork surface may be abated by encapsulation using only the following materials: plastic; metal; or wood.

7) Floors

Floors coated with lead-based paint must be encapsulated using tile, vinyl flooring, wood, or stone.

8) Clean-up

- a. At the end of each workday, rooms or areas in which abatement is incomplete shall be thoroughly cleaned in conformance with this subsection, or properly sealed from the remainder of the dwelling or secondary residence.
- b. Before unsealing each room or area, it should be thoroughly cleaned, surfaces re-coated, and then cleaned again. Once a room or area has received clean-up, it should not be reentered by workmen.
- c. At a minimum, the first clean-up should consist of a thorough High Efficiency Particle Accumulator (HEPA) vacuuming of all surfaces, including woodwork and wood trim, walls, ceilings, windows and window wells, and floors, followed by a high phosphate wash and a second HEPA vacuuming. After repainting or coating walls, woodwork and wood trim, ceilings, windows, and floors the clean-up process should be repeated.
- d. In the absence of a HEPA vacuum, two thorough wet washings with a high phosphate wash, with frequent changes of water, each followed by a wet vacuuming while surfaces are still wet

followed by two additional such treatments after repainting or coating will be considered satisfactory.

- e. Use of an ordinary household vacuum for clean-up of abatement debris is prohibited. Sweeping should be limited to preliminary cleanings only.
- f. All sponges, rags, mop heads and other materials used in dean-up must be properly disposed of along with other abatement debris.

B. Presence of persons and pets during abatement

- 1) The Commissioner shall inform the occupants of the property of the health hazards to persons and pets associated with the abatement procedures.
- 2) Persons and pets may not enter or remain in the work area at any time during the abatement process or until such time as the Commissioner determines that abatement has been completed in a satisfactory manner unless that person is: the person responsible for compliance; a federal, State or local official; an inspector or contractor or their employee hired for the abatement project.
- 3) In the case of rental properties, the owner shall make reasonable efforts to assist tenants with temporary relocation during the abatement process. It is prohibited for owners to eject or lock out tenants in response to being issued a "BCHD Violation Notice and Order to Abate," a "Notice of Elevated Blood Lead Level," or a "Notice of Defect."

C. Safety of workers

Persons carrying out abatement activities must comply with all applicable federal, state, and local laws and/or regulations related to, safety in the workplace.

D. Disposal of abatement waste

- 1) Disposal of waste generated in the course of the abatement process shall be in compliance with Hazardous Waste Small Quantity Generators regulations as required by the Code of Maryland Regulations (COMAR). Lead waste subject to COMAR shall be removed from the site not later than seven days after completing the abatement. Lead waste not subject to COMAR shall be removed from the site not later than twenty-four hours after completing the abatement.
- 2) Lead abatement waste shall be transported and disposed of in a manner to prevent lead from becoming airborne.
- 3) If disposal of lead waste is within the State of Maryland, disposal facilities authorized for that purpose shall be used.
- 4) In no event shall such waste be disposed of through regular residential or commercial trash collection.

E. Inspection by the Department during the abatement process

The Commissioner may inspect any dwelling or secondary residence at any time during the abatement to determine compliance with abatement standards.

F. Clearance Inspection

- 1) Upon request from the person responsible for compliance to the Department, and within a reasonable timeframe thereafter, the Commissioner shall perform a clearance inspection to determine if the abatement has been completed in conformance with this regulation. This determination shall be made based on a visual inspection and one or more of the following:
 - a. reading of the X-RF analyzer;
 - b. results of a lead dust clearance test;
 - c. analysis of paint samples.
- 2) Lead levels detected through the use of a lead dust clearance test shall fall within the range of levels permitted by federal laws and regulations currently in effect and as those laws and regulations may be

revised in the future in order for the Department to find that the abatement has been completed in conformance with this regulation.

- 3) In the case of rental property, no clearance inspection may be conducted until such time as the owner of that property has registered, if so required, with the Maryland Department of the Environment ("MDE") Lead Poisoning Prevention Program and provided the Department with verification of such registration.
- 4) If during the clearance inspection the visual inspection of the property by the Department discloses that the abatement was not carried out in conformance with this regulation, the Department is not required to conduct further analysis under Section VIII, Paragraph F(1) and the clearance inspection shall be halted pending further abatement action as the Department may direct.

IX. Completion of the abatement.

- A. If the clearance inspection is concluded successfully and the Department has confirmed that results from any tests conducted pursuant to the clearance inspection are within the limits established by federal laws and regulations as those laws and regulations may be revised in the future, the abatement will be determined to have been conducted in conformance with this regulation.
- B. The Commissioner shall, without delay, issue a written statement to the owner that the lead hazard violation notice has been abated.
- C. No abatement shall be deemed completed until this written statement is issued.
- D. Such statement shall not preclude the Commissioner from issuing future notices of lead hazard violations against the same property. The owner and/or operator have a continuing obligation to maintain the property in accordance with this regulation.

X. Alternative abatement.

The Commissioner may on a case-by-case basis, approve an alternative procedure for abatement of a lead hazard violation, provided that the owner submits a written description of the alternative procedure to the Commissioner and demonstrates to the satisfaction of the Commissioner that compliance with this regulation is not practical or feasible, or that the proposed alternative procedure provides the equivalent control and removal of lead hazards. The Commissioner, following his/her review, may approve an alternative procedure if he/she determines that it will minimize the emissions of lead into the environment.

XI. Requests for extensions.

- A. Abatement is expected to be completed within 30 days of notice to the person responsible for abatement of the lead hazard violation. Any request for an extension of this deadline must be submitted in writing to the Department prior to the expiration of the 30 days. The request should fully demonstrate that compliance within the time frame previously allotted is not practical or feasible, and will not cause undue harm.
- B. The Commissioner, following his/her review, may grant an extension if he/she determines that additional time is appropriate under the particulars of the case. The time period of the extension shall be within the discretion of the Commissioner.
- C. In the case of rental property, the granting of an extension of time in which to complete the abatement on a Baltimore City Health Department "Violation Notice and Order to Abate Lead Hazards" in no way diminishes or satisfies the obligation of the person responsible for compliance to complete modified lead risk reduction treatments described in §6-819(a) of the Environment Article of the Annotated Code of Maryland which have been triggered by the receipt of a "Notice of EBL" or a "Notice of Defect."

XII. Liability of the Department.

The issuance of a statement by the Commissioner to an owner that a lead hazard violation notice has been abated does not subject the Commissioner or the Department to any claims for liability if the issuance of the statement was made in good faith.

XIII. Penalties

Any violation of this regulation shall be deemed a violation of the Building, Fire, and Related Codes of Baltimore City and violators shall be subject to any and all penalties set forth therein.


XIV. Abatement by Commissioner.

If the abatement is not conducted within the time specified in the notice, or at the end of any extension period that may have been granted, the Commissioner may proceed to remove or abate the condition at the expense of the person responsible for compliance.

XV. Severability

The provisions of this regulation are hereby declared severable. If any word, phrase clause, sentence, paragraph, section or part in or of this regulation or the application thereof to any person, circumstance or thing is declared invalid for any reason whatsoever, the remaining provisions and the application of such provisions to other persons, circumstances or things shall not be affected thereby but shall remain in full force and effect, the Commissioner hereby declaring that he would have ordained the remaining provisions of this regulation without the word, phrase, clause, sentence, paragraph, section or part, or the application thereof, so held invalid.

Approved:



Joshua M. Sharfstein, M.D.
Commissioner
Baltimore City Health Department

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