Sec. 19a-111-3. Inspections, reports and notifications

(a) **Methods**—Lead inspectors may conduct inspections, tests and measurements and issue reports on forms prescribed by the Department for the purpose of recording the presence of toxic levels of lead. When used to determine compliance with Connecticut General Statutes section 19a-111 and regulations of Connecticut State Agencies Sections 19a-111-1 through 19a-111-11, such reports shall be based upon X-ray fluorescence (XRF), atomic absorption spectrophotometry (AAS) graphite furnace atomic absorption spectrophotometry (GFAAS), or inductively coupled plasma-atomic emission spectrophotometry (ICP-AES). Paint samples taken for AAS, GFAAS, or ICP-AES analysis shall be a minimum size of 1 square inch and shall contain all layers of paint down to the substrate.

(1) Surface testing sites—

(A) Interior Locations—In each area of an interior location (e.g. back room, closet, pantry, hall, or part of a divided room), the following representative surfaces will be tested for the presence of toxic levels of lead: baseboard, ceiling, crown molding, door surface and side of door frame for a representative interior door, floor, fireplace, radiator, shelf, shelf support, stair riser, stair tread, stair stringer, stair newel post, stair railing cap, stair balustrade, upper wall, lower wall, chair rail, window sash and window casing and window sill for a representative window, representative door and window lintel.

(B) Exterior Locations—For each side of an exterior surface the following representative surface will be tested for the presence of toxic levels of lead: bulkhead, porch, entrance canopy, exterior wall, siding, lattice, ceiling, railing, railing cap, stair stringer, stair tread, stair riser, trim, cellar window unit, window sill, window casing, window sash for a representative window.

(2) Testing protocols for determining lead present at or above the toxic level using XRF analyzer instruments

(A) The methodology shall be consistent with performance characteristics specific to each make and model of instrument so as to maintain accuracy and precision. Readings shall be classified as (1) lead present at or above the toxic level of lead as defined in section 19a-111-1(59), (2) inconclusive or (3) lead not present at or above the toxic level. Instruments used to determine these classifications shall have verified accuracy and precision utilizing x-ray fluorescence performance characteristic sheets published jointly by the United States Environmental Protection Agency and the United States Department of Housing and Urban Development. The performance characteristic sheets describe the methodology to be used for obtaining x-ray fluorescence readings taken on specific substrates, calibration check tolerances, and provide information describing the performance of the specific model of x-ray fluorescence instrument, including inconclusive ranges.

(B) Multifamily dwelling protocols and decision flowcharts shall not be acceptable methodology for residential lead inspections conducted pursuant to section 19a-111-3 (a) (1).

(C) XRF testing of representative surfaces as described within section 19a-111-3 (a) (1) shall require testing of a representative surface on each listed component when present within an interior area (e.g. room, closet, pantry, hall) or on an exterior side of a building. When multiple readings are required upon a component per performance characteristic sheet

protocol, these readings shall be taken on different locations upon the component testing surface. The average of the multiple readings shall then be used to determine the classification of the readings as described within subdivision (2) (A) of this subsection and within the performance characteristic sheet for the specific model of the XRF instrument used to obtain the readings. An inspector or inspector risk assessor may terminate the series of readings when an individual reading or readings are sufficiently high so as to substantiate a conclusion that lead is present at or above the toxic level without completion of the full test sequence.

(D) When the reading classification obtained from a surface has been determined to be within the inconclusive range, confirmation shall be required except as noted in this subsection. Confirmation shall be performed through testing with atomic absorption spectrophotometry (AAS), graphite furnace atomic absorption spectrophotometry (GFAAS), inductively coupled plasma atomic emission spectrophotometry (ICP-AES), or another testing protocol deemed acceptable by the commissioner. Alternatively at the discretion of the owner and in lieu of confirmation, (1) a surface that is found to be within the inconclusive range may be presumed to contain a toxic level of lead and abated with no further confirmation or (2) an intact surface, except for those noted in subsection (c) of section 19a-111-2, may be placed under the auspices of a lead management plan without confirmatory testing. If deterioration occurs on any such intact surface, the owner shall provide confirmatory testing of that surface and abate the surface if found to contain a toxic level of lead or, at the discretion of the owner, abate any such defective surface as containing a toxic level of lead, without further confirmatory testing.

(E) XRF testing shall be immediately preceded by a minimum of three calibration check readings. Calibration check readings shall be made immediately after an inspection has been completed. Additional calibration check readings shall be made every 4 hours during an inspection or as indicated by the manufacturer, whichever is more frequent. Calibration check readings shall be within the calibration check tolerances outlined in the performance characteristic sheet of the model being utilized before the inspection may proceed. Calibration check readings shall be logged within the inspection documents by the inspector.

(F) XRF instruments may be used to test surfaces that are flat and accessible to the measuring probe of the instrument. XRF instruments shall not be used to test surfaces that are curved, ornate or inaccessible.

(G) For those XRF instruments that require substrate correction, apparent lead concentration (ALC) analysis results may be used to determine that lead is present at or above the toxic level when an ALC result is greater than or equal to 4.0 mg/cm^2.

(H) Where manufacturer's protocol including calibration check criteria are more stringent than those specified in the performance characteristic sheet for that XRF, the manufacturer's protocol shall take precedence.

(b) **Soil**—The methodology for sampling soil for lead varies depending on the site. The methodology used shall be detailed in the lead abatement plan.

(c) **Inspection priorities**—Code enforcement agencies shall carry out inspections according to the following priorities:

(1) Elevated blood lead level—As part of an epidemiological investigation of a child's elevated blood lead level, dwelling units in which the child resides shall be inspected for

toxic levels of lead by the local director of health. This epidemiological investigation shall begin within five (5) working days after notification of the local director of health by the child's physician, hospital, clinic or by the state lead poisoning prevention program and be completed as expeditiously as possible.

(2) Other dwellings—Inspections shall begin within thirty (30) working days and be completed as expeditiously as possible in all dwelling units in which a child resides in the same building as those identified under section 19a-111-3 (c) (1) of regulations of Connecticut State Agencies.

(3) Child day care services—Before licensure or relicensure of a child day care center or group day care home by the department, or before registration of a family day care home by the State of Connecticut department of human services, the premises in which the services are provided shall be inspected by a lead inspector for toxic levels of lead.

(d) **Report of inspection**—Whenever an inspector finds a toxic level of lead requiring abatement, the inspector shall report this to the owner, local director of health, and the commissioner. This report shall include a properly completed copy of the inspection form prescribed by the department and shall be postmarked and sent by certified mail or hand delivered by the end of the second working day following completion of the inspection. The inspection form will indicate all defective and intact lead-based surfaces. Soil and dust exposure pathways shall be investigated and the potential for lead poisoning to a child assessed. Soil sampling methodology shall be documented.

(e) **Notification**—Within two (2) days after receipt of an inspection report identifying toxic levels of lead requiring abatement the owner shall have posted notice on each entrance to the dwelling unit or common area of dwelling if affected. The notice shall measure at least 8 ½″ x 11″ with letters measuring at least one half (½) inch. The notice shall state that the dwelling unit contains a toxic level of lead which may be dangerous and which a child should not be allowed to mouth or chew. The notice shall not be removed until the dwelling unit has been found to comply with Connecticut General Statutes section 19a-111 and regulations of Connecticut State Agencies sections 19a-111-1 through 19a-111-11. The owner will provide a summary report of the lead inspection and/or lead management plan, and the post-abatement inspection report to the residents. This summary inspection report will contain the results of lead-based surface testing as required by section 19a-111-3 of the regulations of Connecticut State Agencies and will include a description of the testing methods used. The owner shall also provide the residents with information prescribed by the department concerning the toxicity of lead and precautions that should be taken to avoid exposure.

(f) **Corrective action**—The local code enforcement agency shall issue an order to correct all defective lead-based surfaces requiring abatement and soil areas identified as a source, or potential source for elevated blood lead within the time period specified in section 19a-111-5 of regulations of Connecticut State Agencies.

(g) **Identification and certification of historic properties**—When a dwelling is fifty (50) years old or older and requires lead abatement, the owner shall within five (5) working days after completion of the inspection report postmark or hand deliver an inspection report and a good quality photograph of the property to the Connecticut Historical Commission. The commission will determine whether properties over fifty (50) years old which require

lead abatement are historic in order to provide guidance on which lead abatement techniques are appropriate for historic properties. The commission will certify properties which are included in or eligible for inclusion in the national or state registers of historic places. The commission shall within ten (10) working days after receipt of the inspection report and photograph send by first class mail a written report of the building's historic status.

(h) **Post abatement inspection**—consists of:

(1) Reinspection: All areas where abatement has been completed in accordance with the abatement plan mandated in section 19a-111-4 (a) of the regulations of Connecticut State Agencies shall be reinspected by the code enforcement agency within ten (10) working days after notification has been received from the owner that lead abatement has been completed. The inspection shall ascertain whether the defective lead based paint has been properly abated. A lead abatement project shall be considered complete when all defective lead based paint has been abated, there is no visible residue in the work area, and the level of lead has been reduced in the abatement area to below the toxic level of lead as determined by the use of lead in dust sampling in the abatement area. A copy of the post abatement inspection report shall be sent by certified mail or hand delivered to the owner of the residential property, the local director of health and the commissioner within two (2) working days after the reinspection is completed.

(2) Lead in dust sampling: Wipe sampling procedure—The standard sample size in this technique is one square foot, which is obtained with a plastic template or measuring device according to the following formula: length in inches times width in inches divided by 144 equals the fraction or multiple of one square foot. Disposable gloves are worn throughout the sampling procedure. A pre-moistened wipe or towelette is placed flat on the surface to be sampled. The wipe is rubbed in an "S" pattern over the entire measured area. The wipe is then folded in half and rubbed once over the surface again at a 90 degree angle to the first series of wipes. Finally, the wipe is folded and placed in a marked tube or plastic bag for laboratory determination of lead via AAS, GFAAS, or ICP-AES. A minimum of 2 unused wipes or 1 wipe for every 20 used, whichever number is greater, is submitted to the laboratory as a blank.

(i) **Conflict of interest**—The lead inspector shall not be an owner or the lead abatement contractor for any property for which the lead inspector issues a lead inspection report.

(j) **Dust-lead hazard –** For the purpose of assessing the level of risk from lead dust, a dust-lead hazard is surface dust in a residential dwelling or child-occupied facility that contains concentrations of lead on floors and window sills that equal or exceed the dust lead hazard concentrations specified in 40 CFR 745, as amended from time to time.

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