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# Standard Practice for Clearance Examinations Following Lead Hazard Reduction Activities in Multifamily Dwellings[1]

This standard is issued under the fixed designation E2271/E2271M; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon (ε) indicates an editorial change since the last revision or reapproval.

## 1. Scope

1.1 This practice covers visual assessment for the presence of deteriorated paint, surface dust, painted debris, and paint chips with environmental sampling of surface dust to determine whether a lead hazard exists at the time of sample collection, following lead-hazard reduction activities, or other building maintenance and modification activities.

1.2 This practice addresses clearance examination of multifamily dwellings having similar units, common areas or exterior sites.

1.3 This practice also addresses clearance examinations that may include soil sampling, for example when soil abatement has been performed.

1.4 This practice includes a procedure for determining whether regulatory requirements for lead clearance levels for dust and, where warranted, soil have been met, and, consequently whether a clearance area, passes or fails a clearance examination.

NOTE 1—This practice is based on that portion of "clearance" described in 40 CFR Part 745 for abatement, and in 24 CFR 35 for lead-hazard reduction activities other than abatement, except that composite dust sampling as described therein is not used.

1.5 The values stated in either SI units or inch-pound units are to be regarded separately as standard. The values stated in each system may not be exact equivalents; therefore, each system shall be used independently of the other. Combining values from the two systems may result in non-conformance with the standard.

1.6 *This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety, health, and environmental practices and determine the applicability of regulatory limitations prior to use.*

1.7 *This international standard was developed in accordance with internationally recognized principles on standardization established in the Decision on Principles for the Development of International Standards, Guides and Recommendations issued by the World Trade Organization Technical Barriers to Trade (TBT) Committee.*

## 2. Referenced Documents

2.1 *ASTM Standards:*[2]

D4840 Guide for Sample Chain-of-Custody Procedures

D5124 Practice for Testing and Use of a Random Number Generator in Lumber and Wood Products Simulation

E631 Terminology of Building Constructions

E1480 Terminology of Facility Management (Building-Related)

E1583 Practice for Evaluating Laboratories Engaged in Determination of Lead in Paint, Dust, Airborne Particulates, and Soil Taken From and Around Buildings and Related Structures

E1605 Terminology Relating to Lead in Buildings

E1727 Practice for Field Collection of Soil Samples for Subsequent Lead Determination

E1728 Practice for Collection of Settled Dust Samples Using Wipe Sampling Methods for Subsequent Lead Determination

E1792 Specification for Wipe Sampling Materials for Lead in Surface Dust

E2239 Practice for Record Keeping and Record Preservation for Lead Hazard Activities

E2255/E2255M Practice for Conducting Visual Assessments for Lead Hazards in Buildings

E3074/E3074M Practice for Clearance Examinations Following Lead Hazard Reduction Activities in Single Family Dwellings, in Individual Units of Multifamily Dwellings, and in Other Child-Occupied Facilities

2.2 *U.S. Regulations:*[3]

24 CFR (Code of Federal Regulations) 35, Department of Housing and Urban Development (HUD), Requirements

[1] This practice is under the jurisdiction of ASTM Committee D22 on Air Quality and is the direct responsibility of Subcommittee D22.12 on Sampling and Analysis, of Lead, for Exposure and Risk Assessment.

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[2] For referenced ASTM standards, visit the ASTM website, www.astm.org, or contact ASTM Customer Service at service@astm.org. For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.

[3] Available from U.S. Government Publishing Office (GPO), 732 N. Capitol St., NW, Washington, DC 20401, http://www.gpo.gov/fdsys/browse/collectionCfr.action?collectionCode=CFR.

for Notification, Evaluation and Reduction of Lead-Based Paint Hazards in Federally Owned Residential Property and Housing Receiving Federal Assistance (especially subparts B and R)

40 CFR 745, Environmental Protection Agency (EPA), Lead-Based Paint Poisoning Prevention in Certain Residential Structures (especially subparts D, L and Q)

2.3 *Governmental Agency Guidance:*[4,5]

EPA National Lead Laboratory Accreditation Program (NLLAP)

## 3. Terminology

3.1 *Definitions*—For definitions of terms not appearing here, see Terminologies E631, E1480, and E1605.

3.2 *Definitions of Terms Specific to This Standard:*

3.2.1 *clearance area, n*—work area and additional spaces outside the work area where lead contamination may have occurred during lead hazard reduction and other building maintenance or modification activities.

3.2.1.1 *Discussion*—The spaces outside the work area may include rooms connected to the work area, egress routes, waste storage areas, and grounds adjoining exterior work areas.

3.2.2 *work area, n*—the interior or exterior space where lead hazard control or other building maintenance or modification activities are performed.

3.2.2.1 *Discussion*—The interior work space may include *(1)* a portion of a room, an entire room, or room equivalent, or *(2)* portions of multiple rooms, multiple rooms or room equivalents, depending upon the extent or location, or both, of the lead hazard control activity. The exterior work space may include *(1)* a portion of a building façade, an entire building façade, associated structures, such as fences, and *(2)* bare soil.

## 4. Significance and Use

4.1 A clearance examination of abatement areas and other areas associated with other lead-hazard control activities, or building maintenance or modification activities in multifamily dwellings having similar units, common areas or exterior sites is performed to determine that the clearance area is adequately safe for reoccupancy.

4.2 It is the responsibility of the user of this standard to assure that all regulatory, contractual, and personnel requirements are met prior to conduct of a clearance examination. At a minimum, users of this standard shall be trained in its use and in safe practices for its conduct.

4.3 This practice is one of a set of standards developed for lead hazard management activities. The visual assessment procedures required in this standard are found in Practice E2255/E2255M and the record keeping requirements are found in Practice E2239.

4.4 Although this practice was primarily developed for multifamily dwellings, this practice may be also applied to nonresidential buildings and related structures by agreement between the client and the individual conducting the clearance examination.

4.5 This practice may be used by owners and property managers, including owner-occupants, and others responsible for maintaining facilities. It may also be used by lead hazard management consultants, construction contractors, labor groups, real estate and financial professionals, insurance organizations, legislators, regulators, and legal professionals.

4.6 This standard does not address whether lead-hazard reduction activities or other building modification or maintenance work were done properly.

## 5. General Requirements

5.1 *Applicable Regulations*—The clearance examination shall be conducted in accordance with all regulations promulgated by authorities having jurisdiction. Applicable regulations are those that are currently in force in jurisdictions where the clearance examination is conducted.

5.2 *Personnel Qualifications*—All persons conducting or participating in the clearance examination shall be qualified in accordance with regulations promulgated by authorities having jurisdiction.

NOTE 2—For example, in the United States of America, 40 CFR Part 745, Subpart L, or 24 CFR Part 35, Subpart R, or both, may apply.

5.3 *Reporting Schedule*—Before arriving at the property, determine with the client the schedule for reporting the results of the clearance examination. Specify in hours or days when the clearance summary and clearance report are due to the client. Consider in the reporting schedule the following: when the last sample for the clearance examination is to be collected; when the results of testing are to be available; and, whether and how reoccupancy, additional construction, or maintenance work, or other factors affect the schedule.

5.4 *Dust Wipe Sampling Materials*—Use only dust wipes that meet Specification E1792 to collect samples of surface dust.

5.5 *Dust Sampling Procedure*—Collect surface dust wipe samples in accordance with Practices E1728 and E3074/E3074M. Record the unique location description, unique sample identifier, the dimensions of the area sampled, and all other sample collection information on the Paint/Dust/Debris Data Form (given in Practice E2255/E2255M).

5.6 *Soil Sampling Procedure*—When required, collect soil samples in accordance with Practice E1727. Record the unique location description, unique sample identifier, and all other sample collection information on the Ground Data Form (given in Practice E2255/E2255M).

5.7 *Laboratory Selection:*

5.7.1 Use only laboratories (fixed site, mobile, or field operational) that meet Practice E1583, or hold the necessary accreditations, certifications, and recognitions needed to conduct lead testing services required by regulations promulgated by authorities having jurisdiction, or both.

[4] Available from U.S. Dept. of Housing and Urban Development (HUD), 451 7th Street SW, Washington DC 20410, https://www.hud.gov/program_offices/healthy_homes/.

[5] Available from United States Environmental Protection Agency (EPA), William Jefferson Clinton Bldg., 1200 Pennsylvania Ave., NW, Washington, DC 20460, http://www.epa.gov.

NOTE 3—For example, in the United States of America, laboratories are recognized for analysis of lead in soil or dust wipe samples, or both, as applicable, by the U.S. Environmental Protection Agency (EPA) through the National Lead Laboratory Accreditation Program (NLLAP).

## 6. Activities Conducted Prior to Visual Assessment and Sample Collection

6.1 *Permissions and Releases*—In advance of carrying out the Clearance Examination, obtain the following:

6.1.1 Signed releases permitting entry to the property and conducting the clearance examination, as may be needed, prior to attempting entry to the property,

6.1.2 Permission to acquire and review available property construction records and any other records appropriate to the conduct of the clearance examination, and

6.1.3 Permission to collect samples.

6.2 *Consider Random Sampling of Dwelling Units in Multifamily Dwellings:*

NOTE 4—Random sampling of similar units, areas, or sites in multifamily dwellings or groups of other detached dwellings may be permitted in regulations promulgated by authorities having jurisdiction. For example, in the United States of America, see 40 CFR 745.227(e)(9) and 24 CFR 35.1340(b)(2) or other regulations promulgated by authorities having jurisdiction. Regulations can be found at www.epa.gov/lead or http://www.hud.gov/offices/lead/index.cfm.

6.2.1 Determine with the client or client's designee whether to conduct clearance examination in a random sample of multifamily dwelling units, common areas, or exterior sites, or all three. If random sampling is not acceptable, continue with 6.3. Otherwise,

6.2.2 Group units, areas, or sites, or all three, having similar construction and maintenance history based on written documentation or visual evidence.

6.2.3 Determine the number(s) of distinct dwelling units, common areas or exterior sites, or all three, in which clearance examination will be performed using statistical methods or other referenced methods to estimate mean lead contents.

NOTE 5—In the United States of America, The U.S. Department of Housing and Urban Development (HUD) has developed guidance on determining the appropriate number of samples to include in lead inspections, risk assessment, and clearance examinations.

6.2.4 For each group of dwelling units, common areas, and exterior sites identified in 6.2.2, prepare a table that uniquely describes each unit, area or site within the group.

6.2.5 Create a list of random numbers for each group of dwelling units, common areas, or exterior sites identified in 6.2.2 having a length corresponding to the number of units, areas, or sites in the group. Use a random number generator meeting the randomness quality measure of Practice D5124.

6.2.6 For each unit, area or site, record the list of random numbers in the corresponding table developed in 6.2.4, associating a random number with each unit, area, or site.

6.2.7 Sort each group of units, areas, or sites in either ascending or descending order, determined prior to sorting the table, of the corresponding random numbers.

6.2.8 Select the random sample of units, areas, or sites beginning at the top of the sorted list using the number of units, areas, or sites to be included in the random sample from 6.2.3.

6.2.8.1 When access cannot be gained to a selected dwelling unit, common area, or exterior area, select the next such location on the corresponding sorted table.

6.3 *Determine Clearance Area*—Determine the clearance area with the client or client's designee.

6.3.1 For multifamily housing, agree on the specific dwelling units.

6.3.2 If within a specific dwelling unit the location of the interior work area in which the lead hazard reduction or other building maintenance or modification activity was performed is unknown, the clearance examiner shall assume that the clearance area is the entire interior of the dwelling.

6.3.3 If the exterior work area upon which hazard reduction or other building maintenance or modification activity was performed is unknown, the clearance examiner shall assume that the clearance area is the entire exterior property.

6.4 *Prepare Floor and Site Plan(s):*

6.4.1 Prepare a floor plan (interior) or property site plan (exterior), or both, to cover all the clearance areas, as applicable, in accordance with Practice E2255/E2255M for each dwelling unit, common area or exterior site to be examined. Each plan shall be used to record clearance examination activities including:

6.4.1.1 Location of the clearance area,

6.4.1.2 Locations from which samples of soil or surface dust, or both, were collected prior to a lead hazard or other building maintenance or modification activity (see Note 6),

NOTE 6—These samples of soil or surface dust, or both, may have been collected to document lead levels prior to the conduct of abatement, other lead hazard activities, and other building maintenance or modification activities.

6.4.1.3 Area(s) used for the storage of debris and waste,

6.4.1.4 Route(s) used by workers to walk from the work area to the exterior of the building,

6.4.1.5 Locations(s) where deteriorated paint, surface dust, paint chips, and painted or unpainted debris (if any) had been observed within the work area during visual examination(s).

6.5 *Clearance Examination Initiation:*

6.5.1 Verify with the client or client's designee, that the lead hazard reduction or other building maintenance or modification activity has been completed before initiating the visual assessment.

6.5.2 Wait at least 1 h after cleaning has been completed before initiating the visual assessment to allow airborne dust to settle.

## 7. Protocol for Interior Visual Assessment

7.1 Conduct visual assessments of all clearance areas in each dwelling unit, common area, or exterior site to be examined in accordance with Practice E2255/E2255M.

7.1.1 *Spaces Outside the Work Area*—Assess each space outside the work area but within the clearance area.

7.1.1.1 *Rooms Connected to the Work Area*—Assess each room connected to the work area for the presence of surface dust and painted debris. If no surface dust or painted debris is

observed, the room connected to the work area passes visual assessment. Any observation of surface dust or painted debris constitutes failure.

7.1.1.2 *Storage Areas*—Assess each storage area, if any, where painted debris or other lead hazard reduction or other building maintenance or modification waste has been stored. If no painted debris or other lead hazard reduction or building maintenance or modification waste is observed, the storage area passes visual assessment. Any observation of painted debris or lead hazard reduction waste constitutes failure

7.1.1.3 *Egress Routes*—Assess egress routes for the presence of surface dust and painted debris. If no surface dust or painted debris is observed in an egress route, the egress route passes visual assessment. Any observation of surface dust or painted debris constitutes failure.

7.1.2 *Work Area*—Assess the work area for the presence of deteriorated paint, surface dust, and painted debris. Any observation of deteriorated paint, surface dust, or painted debris indicates that the work area has failed visual assessment. If no deteriorated paint, surface dust, or painted debris is observed, the work area passes visual assessment.

7.2 If any part of the clearance area does not pass visual assessment, advise the client or the client's designee, or both, that corrective action, such as recleaning of the area or removal of debris and waste, or both, are required prior to performance of another visual examination.

7.3 If the clearance area passes visual assessment, proceed to collect samples of surface dust as described in Section 8.

## 8. Protocol for Interior Settled Dust Sampling

8.1 Collect a wipe sample of surface dust for each sampling location described in 8.3 through 8.6 in accordance with Practices E1728 and E3074/E3074M.

8.2 Record on the floor plan locations from which dust wipe samples are collected.

8.3 *Floor and Windows within the Work Area*—Select either Procedure A or Procedure B to determine sampling locations for collecting floor and window dust-wipe samples within the work area. See Note 7.

NOTE 7—Surfaces affected as a consequence of a failed clearance analysis result depend on whether Procedure A or Procedure B was used to sample the work area. In the case of Procedure A, a failed clearance analysis result means that only the floor or window surface from which the samples were taken fails clearance. In the case of Procedure A for a sample of dwelling units or common areas, or both in multifamily developments, a failed clearance analysis result from the set of results representing a surface means that only the floors or window surfaces in the dwelling units represented by this result fail clearance, for example, the set of entryway samples apply only to the other entryways except for those specific surfaces for which acceptable dust-wipe levels were obtained. In Procedure B, because results of a small set of samples taken on only a few floor or window sampling sites are intended to represent all floors or window surfaces within the work area respectively, a failed clearance analysis result within the set means all floor or window surfaces represented by the set of samples in multifamily dwellings fail clearance, except for those specific surfaces for which acceptable dust-lead levels were obtained. See 11.2 and 11.3.

8.3.1 In Procedure A, independent of the number of rooms in the clearance area in a dwelling unit or common area or both, floor sampling locations are identified in every portion of a room, entire room, or room equivalent and every window.

8.3.2 In Procedure B, depending on the number or rooms in the clearance area in a dwelling unit or common area, or both, floor sampling locations are identified in all or at least four portions of a room, entire rooms, or room equivalents and one window in each portion of a room, entire room or room equivalent.

8.4 *Procedure A:*

8.4.1 *Work Area Floors:*

8.4.1.1 Identify four (4) sampling locations from the floor of each portion of a room, entire room, or room equivalent in the work area as in Practice E3074/E3074M.

*(a)* For portions of rooms, entire rooms, or room equivalents smaller than 50 $m^2$ [500 $ft^2$], identify four (4) sampling locations according to the procedure described in Practice E3074/E3074M.

*(b)* For portions of rooms, entire rooms, or room equivalents larger than 50 $m^2$ [500 $ft^2$], divide the floor into two or more equal parts of 50 $m^2$ [500 $ft^2$] or less. Identify four (4) sampling locations in each part according to Practice E3074/E3074M.

8.4.2 *Windows in the Work Area:*

8.4.2.1 *No Window Within the Work Area*—Record that there is no window in the work area.

8.4.2.2 *One Window in a Portion of a Room, Entire Room, or Room Equivalent*—Identify two sampling locations; one as the entire interior sill and the other as the entire trough. If the trough surface is unavailable (for example, window nailed shut), record so (no trough sample is taken).

8.4.2.3 *More Than One Window Within the Work Area*—Select window sill(s) or trough(s), or both, as sampling locations based on professional judgment such that either the interior sill or trough, or both, of each window is sampled, or

*(a)* Stand at the entrance used to enter the room and flip a coin. HEADS selects the first window to the right; TAILS selects the first window to the left.

*(b)* For the window selected, flip a coin. HEADS means that the entire interior sill is the sample location; TAILS means that the trough is the sample location.

*(c)* Continue in the direction determined in *(a)*, selecting sampling locations on all windows in the work area, alternating between sills and troughs.

*(d)* For those windows in which the troughs are selected but unavailable to sample, collect an interior sill sample.

8.5 *Procedure B:*

8.5.1 *Work Area Floors:*

8.5.1.1 *No More Than Four Portions of Rooms, Four Entire Rooms, or Four Room Equivalents*—Select four (4) floor sampling locations in each portion of a room, entire room, or room equivalent according to 8.4.1.1*(a)* or 8.4.1.1*(b)*.

8.5.1.2 *More than Four Portions of Rooms, at Least Four Entire Rooms, or Four Room Equivalents, or a Combination*—Use either *(a)* or *(b)* to select a minimum of four portions of rooms, four rooms, or four room equivalents and record the option used.

*(a)* Using professional judgement, select the portions of rooms, entire rooms, or room equivalents most likely to be frequented by children.

*(b)* Select portions of rooms, entire rooms, or rooms equivalents using a random selection process, such as the one described in Annex A1.

8.5.1.3 Identify four (4) floor sampling locations in each portion of room, entire room, or room equivalent selected according to 8.4.1.1.

8.5.2 *Windows*—For all portions of rooms, entire rooms, or room equivalents in which a floor sampling location was selected according to either 8.5.1.1 or 8.5.1.2 and having a window, determine a minimum of two sampling locations of which one is an interior sill and the second is a trough using either 8.5.2.1 or 8.5.2.2.

8.5.2.1 Select one window based either on professional judgment, or using a random procedure such as the one in Annex A1. One sampling location is the interior sill and the other the trough.

8.5.2.2 Select sampling locations for two or more windows based on either professional judgment or using a random procedure such as the one in Annex A1. The interior sill of one window is a sampling location and the trough of another window is a sampling location, alternating between sill and trough until all windows are sampled.

8.5.2.3 If the trough is inaccessible, select another window.

8.6 *Floors Outside the Work Area:*

8.6.1 *Rooms Connected to the Work Area:*

8.6.1.1 Using Practice E3074/E3074M, identify four (4) sampling locations in either a portion of the room outside of the work area, or in rooms connected to the work area by a doorway, or both. See Note 8.

NOTE 8—Dust samples are collected outside the work area to assure that leaded dust has not migrated from the work area to adjacent areas.

8.6.2 *Painted Debris and Lead Hazard Reduction Waste Storage Areas*—Using Practice E3074/E3074M, identify four (4) sampling locations on the floor of each interior location where painted debris or lead hazard reduction waste, or both, was stored, if any.

8.6.3 *Egress Routes*—Determine one or more sampling location(s) approximately halfway along each route that was used by workers to walk from the work area(s) and, if within the building, lead hazard reduction waste storage area(s), to the exterior of the building.

## 9. Protocol for Exterior Visual Assessment and Sampling

9.1 *Visual Assessment*—Conduct a visual assessment of the exterior clearance area in accordance with Practice E2255/E2255M.

9.2 For lead hazard reduction activities performed on the exterior surface of the building, include the ground areas beneath the faces of the building surface subjected to the lead hazard reduction activity or other building maintenance or modification activity and the adjoining faces up to the distance of within one half the height of the work area or up to the property line, whichever is smaller. See Note 9.

9.2.1 Exterior clearance areas pass visual assessment when no deteriorated paint is observed, and the ground is free of painted debris, including paint chips and lead hazard reduction waste.

9.2.1.1 If visual assessment is not passed, advise the client or the client's designee.

9.2.1.2 If visual assessment is passed, conduct soil sampling (if required).

9.3 *Soil Sampling:*

9.3.1 Soil sampling is required following soil replacement or as specified in contractual agreements, or both.

9.3.2 When required, collect the soil samples according to Practice E1727. Examples of locations where soil samples may be collected include:

9.3.2.1 The dripline,

9.3.2.2 Replacement soil,

9.3.2.3 Bare soil areas located beneath the exterior surface abated, and

9.3.2.4 Bare soil beneath the two adjoining exterior building faces.

9.3.3 Record on the site plan all locations where soil samples are collected.

NOTE 9—Bare soil beneath the two adjoining exterior building surfaces on the property is sampled because paint contamination from the exterior surface upon which hazard reduction activities were performed may spread and be deposited on the adjoining horizontal surfaces.

## 10. Sample Processing

10.1 Assure that each sample container is labeled with a unique sample identifier.

10.2 Initiate a chain of custody record in accordance with Guide D4840 for collected surface dust and soil samples. The chain of custody form shall include:

10.2.1 Unique sample identifiers,

10.2.2 Date of collection,

10.2.3 The dimensions of the areas from which dust-wipe samples were collected, and,

10.2.4 The dates of assumption and relinquishment of custody for each person who collected the samples and for each person or company/organization that obtains custody of any or all of the samples, at least the name(s) of the person(s).

10.3 Submit all samples to a laboratory that meets Practice E1583, or is recognized for lead analysis as promulgated by authorities having jurisdiction, or both.

10.3.1 Request that the laboratory provide a copy of their certificate that recognizes that the laboratory meets Practice E1583, or the regulatory requirements of the authorities having jurisdiction, or both.

10.3.2 Request that the laboratory provide other information developed by the laboratory as specified in their quality system (for example, as in Practice E1583, or such as required in the United States of America by the EPA NLLAP Laboratory Quality System Requirements (LQSR), or both).

10.3.3 Establish an acceptable laboratory turnaround time based on the requirements for scheduling re-occupancy, additional construction or maintenance work, or both, work schedule or other criteria.

10.4 Request that the laboratory report receipt of the samples collected during the clearance examination:

10.4.1 When pre-lead hazard reduction samples were collected, verify the storage security of such samples.

10.5 *Dust-Wipe Samples*—Request that the laboratory provide:

10.5.1 Mass (micrograms, µg) of lead found in the sample,

10.5.2 The calculated mass of lead per unit area sampled (micrograms of lead per square metre or square foot (µg/$m^2$ or µg/$ft^2$));

10.5.3 Method reporting limit (MRL) or reporting limit (RL) in mass (µg) of lead per sample.

10.6 *Soil Samples*—Request the laboratory report:

10.6.1 Micrograms of lead per gram of soil (µg/g), milligrams of lead per kilogram of soil (mg/kg), or parts per million (ppm) for soil; and,

10.6.2 Method reporting limit (MRL) or reporting limit (RL) in micrograms of lead per gram of soil (µg/g), milligrams of lead per kilogram of soil (mg/kg), or parts per million (ppm) for soil.

## 11. Decision Making for Dust-Wipe Samples

11.1 Upon receipt of the analysis report from the laboratory, transfer the dust-wipe sample analysis results to the appropriate paint/dust/debris or ground data form completed during the visual assessment. Compare the sample analysis results to applicable regulatory clearance level(s).

11.2 *Procedure A, Work Area Surfaces:*

11.2.1 *Sample Analysis Result Less than Clearance Level*—If the lead contents of all samples taken to represent a specific work area surface, for example, kitchen floors, are less than the clearance level, or another more stringent level as set forth by contractual agreement, then all the work area surfaces represented by those samples pass clearance. For example, if all the samples taken on kitchen floors pass clearance, then all kitchen floors in all the dwelling units pass clearance.

11.2.2 *Sample Analysis Result Equal to or Greater than Clearance Level*—If the lead content of any of the group of samples taken to represent a specific type of work area surface, for example, interior bathroom window sills, is equal to or greater than the clearance level specified by applicable regulation or, another more stringent level as set forth by contractual agreement, then all work area surfaces represented by that group of samples in all dwelling units fail clearance, except for those surfaces for which an acceptable dust lead level was determined. For example, if the sample taken from the interior window sill above the tub in one of the bathrooms sampled failed clearance, then all interior window sills above tubs in the all bathrooms in all dwelling units fail clearance, except for those interior window sills above tubs in bathrooms where passing results were obtained. See Note 10.

11.3 *Procedure B, Work Area Surfaces:*

11.3.1 *Sample Analysis Result Less than Clearance Level*—If the lead contents of all samples that represent a specific type of work area surface, for example, bedroom floors, are less than the clearance level, or another more stringent level as set forth by contractual agreement, then all work surfaces represented by the samples pass clearance.

11.3.2 *Sample Analysis Result Equal to or Greater than Clearance Level*—If the lead content of one sample of the group that represents a specific type of work area surface, for example, bedroom floors, is equal to or greater than the clearance level specified by applicable regulation or, another more stringent level as set forth by contractual agreement, then all work area surfaces represented by the samples fail clearance, except for those surfaces for which an acceptable dust-lead level was determined. See Note 10.

11.4 *Floors Outside Work Area:*

11.4.1 *Portion-of-Room Work Area*—The result of any failing result applies to the entire floor or portion of the room outside the work area in all units represented by the samples, except for those surfaces for which an acceptable dust lead level was determined.

11.4.2 *Rooms Connected by a Doorway to Work Area*—The result of any floor failing result applies to all the floors of the entire rooms in all units represented by the samples, except for those surfaces for which an acceptable dust lead level was determined.

11.4.3 *Painted Debris and Lead Hazard Reduction Waste Storage Area*—For those samples failing clearance, the result applies to the total floor surface of the room from which the sample was collected.

11.4.4 *Egress Route*—The result of any failing result applies to all the floors of egress routes in all units represented by the samples, except for those surfaces for which an acceptable dust lead level was determined.

NOTE 10—For any area that fails clearance examination, the cleaning steps or additional portions, or both, of the lead hazard control activity needed to prepare for clearance examination are repeated, after which the clearance examination process is to be begun anew.

## 12. Decision Making for Soil Samples

12.1 Upon receipt of the analysis report from the laboratory, transfer the soil sample analysis results to the Clearance Summary Form (Annex A2). Compare the sample analysis results to applicable clearance level(s).

12.1.1 *Samples Analysis Less than Clearance Level*—If the result of sample analyses is less than the clearance level, or if more stringent, by other agreements, the surface represented by the samples is determined to have passed clearance.

12.1.2 *Samples Analysis Equal to or Greater than Clearance Level*—If the result of a sample analysis is equal to or greater than the clearance level, or if more stringent, by other agreements, the surface or surfaces represented by that sample are determined to have failed clearance, except for those bare soil areas where passing results were obtained.

12.1.2.1 *Bare Soil Areas*—The result made for a single soil sample taken from replacement soil applies to all bare replacement soil. The result made for a single soil sample taken from bare soil beneath the work area applies to all bare soil on the work-area side of the building. The result made for a single soil sample taken from bare soil on one of the adjoining sides of the building to the work area applies to all bare soil on the adjoining sides of the building. For multifamily dwellings, the