Chapter DHS 163

APPENDIX G

Conducting a Visual Inspection

During the visual inspection, the person examining for the presence of deteriorated paint will inspect surfaces that are painted, varnished or otherwise covered with a coating material when the coating has not been proven to be lead–free under s. DHS 163.40 (2) (c), Wis. Adm. Code.

The person conducting the visual inspection must perform all of the following steps:

Step 1. Visually examine for the failure of an enclosure, encapsulant or covering. All conditions described in paragraphs a. through c. below are evidence of a lead–based paint hazard.

a. Encapsulant. A failing encapsulant is peeling away, blistering, cracking, wrinkling, or bubbling. Possible causes are the encapsulant is incompatible with the underlying paint layer, or other layers of paint are not adhering to each other.

b. Enclosure. A risk of lead exposure can be identified by a break in the attachment or seal of the enclosure to the edges or joints. This may be caused by an occupant or water damage.

c. Other Covering. A covering that was placed to temporarily reduce impact, e.g. carpeting on a painted floor, can become a lead–based paint hazard if it is no longer intact.

Step 2. Visually examine for the presence of other potential lead–based paint hazards. (Paragraphs throughout Steps 2 and 3 may have illustrative photos to the left of text.)

a. Chew Marks. Painted surfaces with teeth or chew marks is evidence that a child might be ingesting lead–based paint. Visually inspect surfaces that are within reach of a child.

b. Mildew. A potential hazard is the formation of microbial growth on a painted surface. It is usually caused by excessive moisture. Mildew should be removed as a preventive measure to decrease the chance of paint film deterioration.

Paint affected by the mildew is deteriorated paint and must be repaired when an adhesion test determines that any layer is not securely bonded. To conduct an adhesion test, firmly press a 2″ x 2″ piece of masking tape to the suspect paint and rub the tape to adhere firmly. Lift up on one corner of the tape and remove the tape. If paint is evident on the tape, the paint is separating from the substrate or from underlying paint, and is not securely bonded.

c. Nail, Tack, or Screw Holes. Holes in the paint are not generally lead–based paint hazards unless an adhesion test determines that the paint surrounding the hole is not securely bonded.

Paint that is not securely bonded is deteriorated paint and must be repaired. To conduct an adhesion test, firmly press a 2″ x 2″ piece of masking tape to the suspect paint and rub the tape to adhere firmly. Lift up on one corner of the tape and remove the tape. If paint is evident on the tape, the paint is separating from the substrate or from underlying paint, and is not securely bonded.

d. Paint Chips and Other Paint Debris. The presence of paint chips and debris that have not been proven to be lead–free are considered a hazard. They are evidence that paint is either deteriorated or subject to friction or impact. Visually inspect the floor, stairs, window wells/troughs and sills, and dripline for the presence of paint chips or other paint debris.

e. Painted Friction or Impact Surface. The friction and impact surfaces are evidenced by worn or chipped paint. The friction and impact of these surfaces can also result in dust–lead, which is not detected in a visual inspection.

Worn paint is often due to improperly hung doors, sticky window sashes, sticky drawers, etc. A source of dust–lead are windows that do not operate smoothly and doors that bind or otherwise contact the frame. To test for friction surfaces open and close painted doors, drawers and windows. Visually inspect doors, windows, trim, floors and stairs for evidence that the paint is worn or chipped.

f. Substrate damage. Dry rot, moisture damage and crumbling plaster can cause paint to deteriorate. Conduct an adhesion test to determine whether the paint on the damaged substrate is securely bonded.

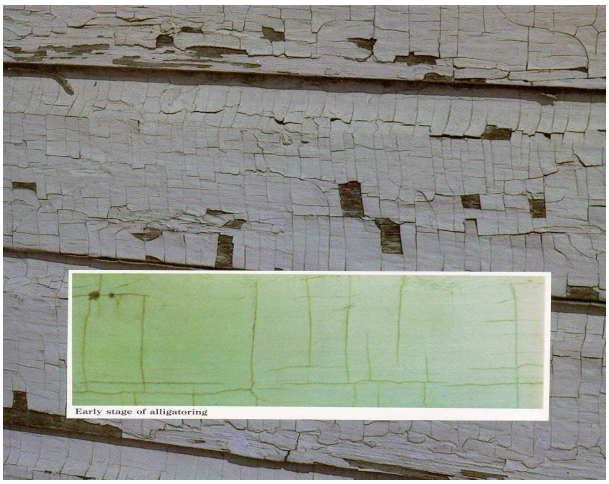
Paint that is not securely bonded is deteriorated paint and must be repaired. To conduct an adhesion test, firmly press a 2″ x 2″ piece of masking tape to the suspect paint and rub the tape to adhere firmly. Lift up on one corner of the tape and remove the tape. If paint is evident on the tape, the paint is separating from the substrate or from underlying paint, and is not securely bonded.

g. Unkeyed Plaster. Plaster is unkeyed when plaster becomes loose or bowed. It is caused when the mechanical bond with the supporting structure is broken and has not been repaired. To test for unkeyed plaster, find a crack in the plaster, place your hand close to one side of the crack and push against the plaster wall. If the side of the crack depresses, it is evidence of unkeyed plaster that is likely to cause paint deterioration at the site of the crack. In addition, conduct an adhesion test under par. f. to determine whether the paint along the cracked plaster is securely bonded.

h. Water Leak. Water stains or the presence of water is evidence of a potential water leak. Conduct an adhesion test under par. f. to determine whether the paint affected by the water leak is securely bonded.

Step 3. Visually examine for the presence of any other deteriorated paint that has not been proven to be lead–free. Deteriorated paint includes paint that is cracking, flaking, chipping, peeling, chalking or otherwise separating from the substrate of a building component or from underlying paint on a component. Deteriorated paint does not include paint where nail holes, hair–line cracks, or small nicks or scratches are present, provided all layers of paint remain securely bonded.

a. Alligatoring Paint. Alligatoring can be identified by reptilian scale patterns on dried paint films. It is often caused by the inability of the topcoat to bond smoothly to a glossy coat underneath. Alligatoring is usually associated with paint films that are too thick, or the application of a brittle coating over a more flexible one.



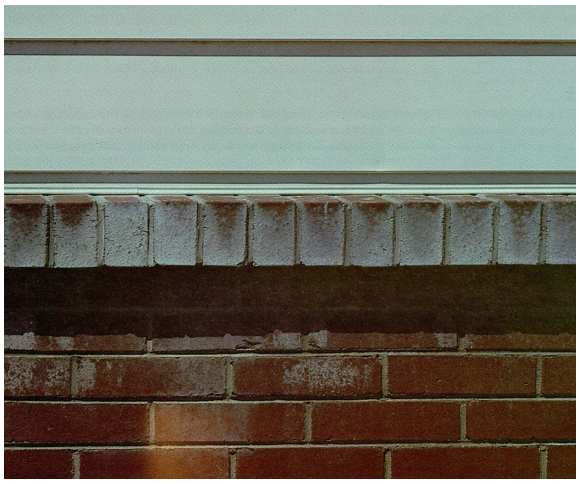
Alligatoring paint is deteriorated paint and must be repaired when an adhesion test determines that any layer is not securely bonded. To conduct an adhesion test, firmly press a 2″ x 2″ piece of masking tape to the suspect paint and rub

the tape to adhere firmly. Lift up on one corner of the tape and remove the tape. If paint is evident on the tape, the paint is separating from the substrate or from underlying paint, and is not securely bonded.

b. Blistering Paint. Blistering is the formation of bubbles in the paint film caused by either heat or moisture. To determine the cause, break open one of the bubbles; if bare substrate shows, the likely cause is moisture. However, if another layer of paint shows instead of substrate, heat probably caused the blister.

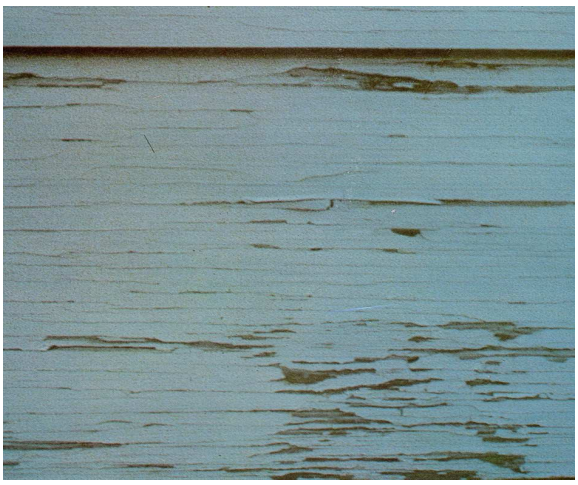
Blistering paint is deteriorated paint and must be repaired.

c. Chalking Paint. Chalking is the formation of a fine lead powder on the surface of a paint film. Almost all exterior oil paints are designed to eventually chalk in order to wash dirt away in the rain and provide a good surface for repainting. However, the chalking can also appear on the surfaces below the paint or on the ground. This chalking is usually caused by a failure to adequately prime or seal a porous surface, overthinning of paint, or exposure to sunlight.



Chalking paint is deteriorated paint and must be repaired.

d. Checking Paint. Checking is a pattern of short, narrow breaks in the top layer of paint that is usually caused by a loss of elasticity. Plywood substrates can often cause checking.



Checking paint is deteriorated paint and must be repaired when an adhesion test determines that any layer is not securely bonded. To conduct an adhesion test, firmly press a 2″ x 2″ piece of masking tape to the suspect paint and rub the tape to adhere firmly. Lift up on one corner of the tape and remove the tape. If paint is evident on the tape, the paint is separating from the substrate or from underlying paint, and is not securely bonded.

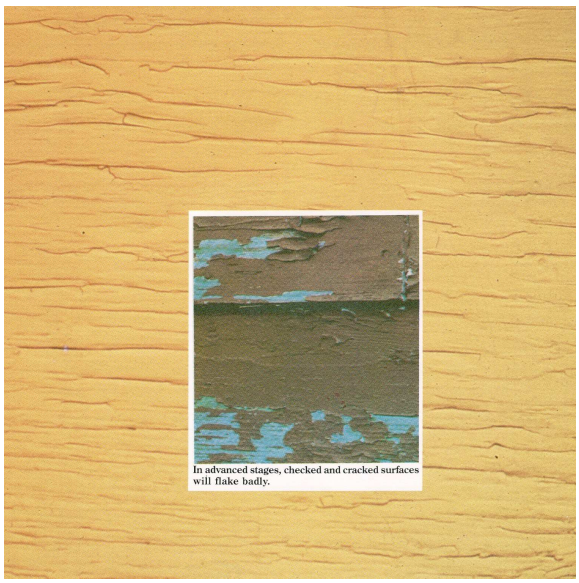
e. Chipping Paint. Paint chips are generally visible when chipping paint occurs. Chipping paint is paint that separates from the substrate due to either impact to the painted surface or poor surface preparation or paint failure.

Chipping paint is deteriorated paint and must be repaired.

f. Cracking Paint. The cracks usually form parallel to the grain of the wood. Cracking paint is an advanced form of checking that usually occurs on surfaces with multiple layers of paint and includes breaks in the film that extend to the base substrate.

Cracking paint and cracked paint at a settlement crack is deteriorated paint and must be repaired when an adhesion test determines that any layer of paint is not securely bonded. To conduct an adhesion test, firmly press a 2″ x 2″ piece of masking tape to the suspect paint and rub the tape to adhere firmly. Lift up on one corner of the tape and remove the tape. If paint is evident on the tape, the paint is separating from the substrate or from underlying paint, and is not securely bonded.

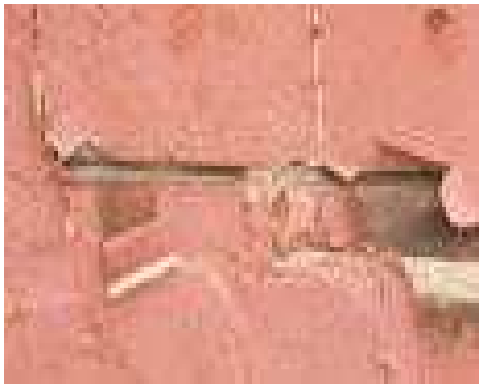
g. Flaking or Scaling Paint. Flaking is a form of paint separation often found in those exterior areas of the building susceptible to condensation, such as under the eaves. Salt deposits drawn to the paint film surface can cause scaling.



Flaking or scaling paint is deteriorated paint and must be repaired.

h. Paint Peeling from Metal. Paint peeling from metal is a form of paint separation usually caused by improper priming of bare, galvanized metal, or by rusting. Peeling paint is deteriorated paint and must be repaired.

i. Paint Peeling from Wood. Paint peeling from wood is a type of paint separation usually resulting from wet wood swelling under paint, causing the paint film to loosen, crack and dislodge. The water may be present because of moisture passing through the substrate from the interior (poor ventilation) or exterior sources of moisture penetrating the paint film. Peeling paint is deteriorated paint and must be repaired.

j. Paint Peeling from Plaster Walls. Paint peeling from plaster walls can appear as chalking on the surface. It can be the result of insufficient wet troweling of the white coat when the plaster was applied. Another cause is the type of glue used, which absorbs water, and the use of a primer with poor alkali resistance can lead to deterioration. Peeling paint is deteriorated paint and must be repaired.

k. Paint Peeling from Masonry Surfaces. Paint peeling from masonry surfaces is often caused by the alkaline condition of the surface. Peeling paint is deteriorated paint and must be repaired.