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CREIA INSPECTOR Magazine

VISION

To protect lives, health and investments

MISSION

The California Real Estate Inspection Association promotes excellence in the real estate inspection profession and is committed in supporting every member in achieving the highest level of expertise in the industry.

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SB-442: WHAT DOES IT ALL MEAN?

BY DAVID PACE, MCI, IF, CHAIR, LEGISLATIVE COMMITTEE

On October 11, 2017 Governor Brown signed into law **SB 442**. The bill is known as the ***Pool Safety Act***. The bill is very similar to one, which the governor vetoed during the previous legislative session. His stated reason for the veto was that pool safety is the primary the responsibility of parents.

THE REASON FOR THE BILL

The reason stated is contained within the bill.

"According to both federal Centers for Disease Control and Prevention's National Center for Injury Prevention and Control and the State Department of Public Health's EpiCenter data, drowning is the second leading cause of death for California children one to four years of age inclusive. EpiCenter data shows that between the years 2010 and 2014 more than 160 children one to four years of age, inclusive, suffered fatal drownings, with the majority of the incidents involving residential pools, and between the years 2010 and 2015 more than 740 children one to four years of age, inclusive, were hospitalized after suffering a near drowning incident with the leading cause of hospitalization being brain injury due to the lack of oxygen, also known as asphyxiation."

The bill goes on to say:

"Additional children suffer near drowning incidents and survive, but many of those children suffer irreversible brain injuries, which can lead to lifelong learning deficiencies that impact not only the affected child and his or her family, but also the resources and moneys available to California's health care system, regional centers, and special education school programs. The State Department of Developmental Services reported that as of December 2016 the agency was providing care for more than 755 near-drowning victims with severe brain damage resulting from the near drowning."

The legislature also finds and declares:

*"Close parental supervision of children with access to swimming pools is essential to providing pool safety for children. Barriers, such as those required pursuant to section 115922 of the **Health and Safety Code**, can help deter young children from gaining unsupervised access to pools."*

CREIA'S POSITION ON THE BILL

During this last legislative session Jerry Desmond, our legislative advocate, and I met on several occasions with the office of Senator Newman, the author of the legislation, as well as the primary representatives of the 40 bill sponsors to learn of their concerns and to set forth our perspective on how best to meet those concerns. Over the course of several months CREIA produced a SB-442 White Paper setting forth our perspective and offered proposed amendments to the bill. In our meetings I argued:

1. The bill will only affect a fraction of residential pools in California.
2. Home inspectors are not certified or capable of validating that safety provisions are compliant with ASTM standards.
3. Home inspectors cannot verify that pool barriers are properly installed or that pool alarms function properly.

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4. Home inspectors identify items, as they exist at the time of the inspection.
5. Professional Pool inspectors are best equipped and trained to identify pool safety devices.
6. This bill significantly increases legal exposure for home inspectors who are not trained or qualified to make responsible evaluations.
7. A prudent home inspector will defer specific evaluation of safety devices to a qualified professional.
8. Each home inspector will need to secure their own copy of the various ASTM Standards to find out what standards they are expected to adhere to.
9. Inspection fees will increase by as much as 30%.
10. Insurance cost for home inspectors will increase.
11. The provisions of this bill are best addressed by professional pool inspectors who have the background, experience and training to perform pool inspections.
12. Home owners should provide all appropriate disclosures and documentations related to the pool and pool safety provisions.
13. **There is no requirement to make any safety repairs**

During our conversations with Senator Newman's office and the sponsors of the bill, I made it clear that the reason CREIA exists is to "To protect lives, health and investments." That is our Vision Statement. Safety was never the question. The question was, who is best qualified to review the safety provisions specified by the bill. Review of those safety provisions are now the responsibility of the homes inspector.

PRELIMINARY THOUGHTS AND CONSIDERATIONS

1. **Regarding the Nature of our Inspection.**

   Our inspection of pool safety features is not unlike our inspection of other aspects of the home itself. 7195 (a)(1) states that a *"Home inspection is a noninvasive, physical examination… of the mechanical, electrical, or plumbing systems or the structural and essential components of a residential dwelling of 1 to 4 units designed to identify material defects in those systems, structures, and components."*

   Section 7195(a)(2) states, *"In connection with the transfer, as defined in subdivision (e), of real property with a swimming pool or spa, an appropriate inspection shall include a noninvasive physical examination of the pool or spa and dwelling for the purposes of identifying"* the safety features present.

   Our inspection of the safety features is to be "appropriate." Merriam-Webster defines "appropriate" as "especially suitable or compatible: fitting." The task of our inspection if further defined to be a "noninvasive physical examination." As we shall see later many of the safety features cannot be verified by a noninvasive physical examination. (I would not think it appropriate to get two adults and one child to walk out onto a pool cover to make sure it meets the 485 lb. (220.0 kg) static load test required by ASTM 1346.)

2. **Regarding the Nature of our Inspection Report.**

   7195 (c) states *"A 'home inspection report' is a written report...(that) clearly describes and identifies the inspected systems, structures, or components of the dwelling, any material defects identified, and any recommendations regarding the conditions observed or recommendations for evaluation by appropriate persons."* It goes on to state, *"in a dwelling with a pool or spa, the report shall identify which of any of the seven drowning prevention safety features listed in sub division (a) of section 115922 of the* ***Health and Safety Code*** *the pool or spa is equipped with and shall specifically state if the pool or spa has fewer than two of the listed drowning prevention safety features."*

   Our "appropriate," "noninvasive physical examination" observations of the pool safety features are to be a part of the "home inspection report" in which we describe and identify conditions and provide recommendations for evaluation by appropriate persons. Our standard of care is not that of a trained and qualified ASTM professional. Our standard of care is that of a reasonable prudent home inspector (7196). To be sure we need to be careful and diligent in our inspection, our standard of care requires it. When we see a foundation deficiency, we do not play engineer. We recommend further evaluation by a qualified and registered engineer and appropriate repairs be made. When we see a fried breaker in a sub-panel, we do not play electrician. We recommend further evaluation and repair by a qualified and licensed electrician. Inspection of pool safety features is no different.

WHAT DOES THE BILL REQUIRE

The bill requires:

1. When a single family residence with a pool (see definitions below) is transferred and a home inspection is performed on the home, the home inspection report shall identify which, if any, of seven specific drowning prevention safety features are present. Those safety features are defined in section 115922 of the ***Health & Safety Code***.
2. The home inspection report shall specifically state if the pool or spa has fewer than two of the listed drowning prevention safety features.

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APPLICABLE DEFINITIONS (*HEALTH AND SAFETY CODE* 115921)

Section 11591 defines terms related to the requirements of the Bill.

"Swimming pool" or **"pool"** means any structure intended for swimming or recreational bathing that contains water over 18 inches deep. "Swimming pool" includes in-ground and above-ground structures and includes, but is not limited to, hot tubs, spas, portable spas, and non-portable wading pools.

"Public swimming pool" means a swimming pool operated for the use of the general public with or without charge, or for the use of the members and guests of a private club. Public swimming pool does not include a swimming pool located on the grounds of a private single-family home.

"Enclosure" means a fence, wall, or other barrier that isolates a swimming pool from access to the home.

"Approved safety pool cover" means a manually or power-operated safety pool cover that meets all of the performance standards of the American Society for Testing and Materials (ASTM), in compliance with standard F1346-91.

"Exit alarms" means devices that make audible, continuous alarm sounds when any door or window, that permits access from the residence to the pool area that is without any intervening enclosure, is opened or is left ajar. Exit alarms may be battery operated or may be connected to the electrical wiring of the building.

THE SEVEN DROWNING SAFETY PROVISIONS (*HEALTH AND SAFETY CODE* 115922)

Section 115922 of the ***Health and Safety Code*** states that "*Except as provided in Section 115925, when a building permit is issued for the construction of a new swimming pool or spa or the remodeling of an existing swimming pool or spa at a private single-family home, the respective swimming pool or spa shall be equipped with at least two of the… seven drowning prevention safety features.*"

The requirement for the safety features is triggered by the issuance of a permit for the construction or remodeling of a pool or spa. An inspection by the local building department is required prior to the issuance of a final approval.

With the passage of this bill, inspection of safety features is also triggered when a home inspection is completed on a single-family home with a swimming pool in conjunction with the transfer of a property. NOTE that there is no requirement for there to be a pool inspection AND there is no requirement for a pool inspection to verify the presence of the *"2 of 7"* safety features. It only applies when there is a transfer of the property with a swimming pool and a home inspection is performed on the single family home.

SAFETY FEATURE ONE – *HEALTH AND SAFETY CODE* 115922 (A)(1)

"An enclosure that meets the requirements of section 115923 and isolates the swimming pool or spa from the private single-family home."

As noted earlier an "Enclosure" means a fence, wall, or other barrier that isolates a swimming pool from access to the home. There are six characteristics for an enclosure to comply with the bill. All six are required or the enclosure does not meet the requirement of the legislation. The first five requirements are from section 115923.

1. Any access gates through the enclosure must open away from the swimming pool, and must be self-closing with a self-latching device placed no lower than 60 inches above the ground.
2. The enclosure must be a minimum height of 60 inches.
3. The maximum vertical clearance from the ground to the bottom of the enclosure shall be no more than 2 inches.
4. Any gaps or voids in the enclosure shall not allow passage of a sphere equal to or greater than 4 inches.
5. The outside surface shall be free of protrusions, cavities, or other physical characteristics that would serve as handholds or footholds that could enable a child below the age of five years to climb over the enclosure.
6. The enclosure shall isolate the swimming pool or spa from the private single-family home. [***Health and Safety Code*** 511922 (a)(1)]

   If ALL six are present the enclosure meets the requirements as a safety feature.

SAFETY FEATURE TWO - *HEALTH AND SAFETY CODE* 115922 (A)(1)

"Removable mesh fencing that meets American Society for Testing and Materials (ASTM) Specifications F2286 standards in conjunction with a gate that is self-closing and self-latching and can accommodate a key lockable device."

ASTM F2286 is a document, which includes many design and performance requirements.

Some of the design requirements can be measured.

- The top of a fence or wall used as a barrier needs to be a minimum of 48 inches above the exterior side of the grade.
- If there is a hinge to gate used in addition to, or as part of the mesh safety barrier, the gate shall be self-closing and self-latching. The gate shall accommodate a locking device and open outward from the pool, spa

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or hot tub. The locking device shall be located a minimum of 54 inches above the grade and be mounted on the outside of the gate.

- There must be a clear zone of 20 inches between the barrier and the pool/spa/hot tub.
- There must be a latching device no lower than 45 inches above grade for each barrier section. The latching device needs to provide security equal to or greater than that of a hook-and-eye-type latch incorporating a spring actuated retaining lever.
- The bottom of the mesh barrier can be no more than 1 inch above the deck or surface grade.

Some of the design requirements may not be conclusively verified.

- The distance between vertical support poles and the attached mesh shall be designed and fabricated to hinder the child's ability to climb the mesh safety barrier.
- Any decorative details cannot allow a child to use those details to climb mesh safety barrier.
- The mesh safety barrier shall be removable.
- The mesh safety barrier shall provide continuous and constant protection. When used outdoors or in an unenclosed pool/spa/hot tub, the mesh safety barrier may provide 360° protection or may be attached to another property or perimeter fence to prevent unsupervised access to the pool.

Many of the requirements of ASTM F2286 CANNOT be verified by a non-invasive physical examination of the safety feature.

- There must be a 40% open space requirement in the mesh to allow visibility from the outside to the inside of the mesh fence.
- The posts shall be embedded 3 inches below grade and be spaced no more than 40 inches apart.
- There is a tensile strength test requirement for the mesh material.
- There is a discoloration test for the mesh material.
- There is a specific screw size requirement for attachment of a molding strip to the vertical posts.
- The deck sleeves shall be of a non-conductive material.
- There are specific Vertical Load and Impact Tests.
- There are labeling and warning sign requirements for the mesh safety barrier.

This raises the question, "Can any mesh fence be considered fully compliant by means of a non-invasive physical examination?"

SAFETY FEATURE THREE - *HEALTH AND SAFETY CODE* 115922 (A)(1)

"An approved safety pool cover, as defined in subsection (d) of section 115921."

ASTM F1346-91 is a seven page, two-column document that contains many design and performance requirements.

The requirements include but are not limited to:

- Knowledge of the materials and manufacturing process.
- Knowledge of the installation and the delivery of detailed instructions for installation.
- Extensive labeling requirements for the cover. (These include product labeling, warning labeling, proper signal words, safety alert symbols, word messaging, label color, font size, letter style, life expectancy of the cover, cover protection advice, attachment of the labels, replacement of labeling, instruction/use labeling, packaging labeling and compliance labeling).
- Proper markings for the safety cover are to include manufacturer's name, date manufactured or installed and instructions to the consumer to inspect the cover for premature wear or deterioration.
- No visible damage to seams, ties or welds that will impair intended performance of the device when subjected to safety cover tests.
- No gaps or openings between the cover and the deck surface or coping wall or both which could allow passage of a test object to gain access to the water or be subject to entrapment.
- There are specific test requirements and test methods for testing Static Load, Perimeter Deflection, Surface Drainage and Opening Tests.

Most of the requirements of ASTM F1346 CANNOT be confirmed by means of a non-invasive physical examination.

SAFETY FEATURE FOUR - *HEALTH AND SAFETY CODE* 115922 (A)(1)

"Exit alarms on the private single-family homes doors that provide direct access to the swimming pool or spa. The exit alarms may cause either and alarm noise or a verbal warning, such as a repeated notification that 'the door to the pool is open.'"

As indicated earlier, an exit alarm means devices that make audible, continuous alarm sounds when any door or window, that permits access from the residence to the pool area that is without any intervening enclosure, is opened or is left ajar. Exit alarms may be battery operated or may be connected to the electrical wiring of the building (***Health and Safety Code*** *115921*).

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Exit alarms are required on ANY door or window that permits access from the residence to the pool area without an enclosure between the pool and the residence. The exit alarm is required to make an audible sound when the door or window is opened or is left ajar. If a door or window is opened the alarm must sound. The exit alarm may be battery operated or hard wired.

SAFETY FEATURE FIVE - *HEALTH AND SAFETY CODE* 115922 (A)(1)

"A self-closing, self-latching device with a release mechanism placed no lower than 54 inches above the floor on the private single-family home's doors providing direct access to the swimming pool or spa."

Any door providing direct access to the swimming pool or spa must be self-closing and self-latching. Does this include sliding glass doors? Yes, ANY door. In addition to the door being self-closing and self-latching there must be a release mechanism no lower than 54 inches above the floor. This can be in addition to the standard lock mechanism.

SAFETY FEATURE SIX - *HEALTH AND SAFETY CODE* 115922 (A)(1)

"An alarm, when placed in a swimming pool or spa, will sound upon detection of accidental or an authorized entrance into the water. The alarm shall meet and be independently certified to the ASTM standard F 2208 'Standard Safety Specification for Residential Pool Alarms,' which includes surface motion, pressure, sonar, laser, and infrared type alarms. A swimming protection alarm feature designed for individual use, including an alarm attached to a child that sounds when the child exceeds a certain distance or become submerged in water, is not a qualifying drowning prevention safety feature."

The key phrase is the exit alarm *"shall meet and be independently certified to ASTM standard F 2208."* All exit alarms complying with this standard SHALL be labeled or marked *"Meets requirements of ASTM Safety Specification F 2208."* The name, model number, date of manufacturer, and contact information is required to be placed permanently on the product as appropriate.

There are four classifications of alarms, Surface, Subsurface, Pool Perimeter and Personal Immersion Alarms.

Most of the requirements of ASTM F2208-08 CANNOT be confirmed by means of a non-invasive physical examination.

These include but are not limited to:

Alarm shall sound within 20 seconds both at the pool and within the residence via a remote receiver.

- The operational condition of the alarm shall be made known by means of an energized lamp at a distance of 10 feet +/- 1 foot and specified at a specified angle of view (45 degrees from perpendicular +/- % degrees).
- The alarm must have a minimum rating of 85 dba.
- If the alarm is battery operated there must be a low-battery indicator.
- The alarm must automatically reset.
- Wireless alarms must be FCC Part-15 compliant.
- If the alarm deactivates or has reduced sensitivity due to environmental factors, the alarm must provide a visual and audible warning.
- There are various tests and test procedures for each type of alarm. Child tests may include repeated drop tests, vertical drop tests and horizontal drop tests using a child intrusion simulator called "Rescue Timmy" who meets the requirements of the National Center(s) for Disease Control for a one year old child.
- Instructions are required to be shipped with each unit using ANSI Z53 5.6 as a guide. At a minimum the instructions shall address proper installation, any needed adjustments, size and shape limitations of the pool, troubleshooting instructions, contact information for the manufacturer, power or battery requirements, recommended distance from transmitter to receiver and a statement that states: "*This device is not intended to replace any other safety consideration; that is, adult supervision, lifeguards, fences, gates, pool covers, locks, and so forth, and some devices may not detect gradual entry.*"

SAFETY FEATURE SEVEN - *HEALTH AND SAFETY CODE* 115922 (A)(1)

"Other means of protection, if the degree of protection afforded is equal to or greater than that afforded by any of the feature set forth above and has been independently verified by an approved testing laboratory as meeting standards for those features established by ASTM or the American Society of Mechanical Engineers (ASME)."

While I cannot confirm, I do not believe a "Baywatch" lifeguard qualifies.

WHAT DO I REPORT?

The bill requires that we identify which, if any, of the 7 specified safety drowning prevention safety features the pool or spa is so equipped. Further we are required to specifically state if the pool or spa has fewer than two of the listed drowning prevention safety features.

To identify is to "say what something is." Merriam-Webster lists many synonyms for identify. They include the words: distinguish, pinpoint, locate, examine, inspect, investigate, notice, scrutinize, disclose, discover etc. A prudent home inspector (the standard

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to which we are held) will identify the pool safety deficiencies (material defects) he or she is able to as specified in the bill. It is obvious many of the provisions of the bill cannot be identified within the confines of our non-invasive physical inspection. As with any other aspect of our home inspection, if we can't inspect it… disclose it.

ARE THERE EXCEPTIONS TO THE BILL?

Section 115925 was amended to indicate there are three exceptions to the bill.

1. Public swimming pools.
2. Hot tubs or spas with locking safety covers that comply with the American Society for Testing and Materials (*ASTM F1346*).
3. An apartment complex, or any other residential setting other than a single-family home.

David Pace, MCI, IF, is currently serving as Immediate Past Chairman of CREIA and is Chair of CREIA's Legislative Committee. If you are interested in volunteering to review bills for the Legislative Committee, please contact info@creia.org.

Editor's Note: Members of CREIA's Legislative and Standards of Practice Committees will soon be meeting with CREIA's Legislative Advocate and Attorney to further discuss how to handle this new legislation. Stay tuned to the Legislative Alert section on the CREIA Website and to email blasts for updates.

The Shocking Truth About Common 3-Prong Receptacle Testers - They Lie!

BY SKIP WALKER, MCI, IF

Above Photo: Test Board with Several Very Dangerous Conditions That Test OK Using Standard 3-Light Tester

Many inspectors use the basic 3-light "Christmas tree" testers for receptacle testing. I'd wager that one of these testers can be found in the toolbelt of most inspectors in the US. The effectiveness of these testers is extremely limited. They can only detect a single defect at a time. If you plug a 3-light tester into a receptacle with multiple issues, the response will be unclear at best. Even worse, it can be dangerously wrong.

3-light testers have no electronics inside. There are no diagnostics going on when you plug them in. These testers are just three lights that illuminate when a voltage difference is present between the various wire pairs. There are three possible wire pair combinations – hence 3 lights. These are Hot to Neutral (H-N), Hot to Ground (H-G) and Neutral to Ground (N-G). With a normally wired grounded receptacle, the H-N and H-G illuminated since there is a voltage difference between those pairs. On most testers, this means the right two lights will be illuminated indicating a properly wired and grounded receptacle. There are several brands that may differ from this configuration though.

If the 3-prong receptacle is ungrounded or the ground is disconnected, there will be voltage between the H-N pair. There will be no voltage between either the H-G or H-N pairs. In this case, the typical tester will have only the center light illuminated. This indicates an open ground or ungrounded condition.

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Another very common issue is reversed polarity. In this case, the Hot and Neutral wires are installed in reverse at the receptacle. Receptacles are polarized for safety reasons. The TV or lamp will still work since this is an AC system. The voltage is "traveling" the "other "direction half the time. For safety reasons, the first thing the "incoming" electricity should pass through in a fixture is the OFF switch. This way all downstream components are dead when the switch is in the OFF position.

Grounded Circuit with Polarity Reversed

If the polarity is reversed, the LAST thing the electricity passes though is the OFF switch. This means the internal components are live regardless of switch position. Touching any of the internal parts while grounded will result in a shock. One could argue that anyone dumb enough to stick their finger in a light socket shouldn't be in the gene pool – but I digress.

Using our typical 3-light tester, a receptacle wired reverse polarity shows voltage between the H-N and between the N-G. In a reverse polarity condition, the neutral side is live. The H-G will not illuminate since there is no voltage difference between the hot and ground. This illuminates the center and left light telling us we have a reverse polarity condition.

3-Light "Tester" Indications

Lamp Illumination[1]			Likely Meaning	Recommendation
Left	Center	Right		
–	–	–	No power	Check breaker or switch
–	ON	ON	Properly wired or false-ground plus reversed polarity	Evaluate likelihood of defect based on age and results of panel inspection
–	ON	–	Open Ground Polarity cannot be determined	See section 5.4.2.2
ON	ON	–	GFCI test button depressed on open ground receptacle	Take finger off test button
ON	ON	–	Reversed polarity	Investigate and rewire
ON	–	ON	Hot-Ground Reversed	Investigate and rewire
ON	ON	ON		Recheck with no other loads in operation, investigate further

1. Assumes the ground pin is down. Verify that the instructions written on the tester state it is supposed to indicate proper wiring when the two lights on the right are illuminated. Some testers have other arrangements.

3-Light 'Tester,' "Table Courtesy Code Check® Electrical Inspections of Existing Dwellings, Second Edition

Now let's throw our magic 3-light tester a curve ball. What happens when we have a 3-prong receptacle that is both ungrounded AND has reverse polarity? There will be voltage across the H-N pair, so the center light will illuminate. There is no ground, so no voltage will be present at either the H-G or N-G pairs. The tester will only show an ungrounded receptacle and will not detect the reverse polarity condition.

One case not covered in the table is a switched receptacle where the neutral is improperly being used as the switch leg. With the switch OFF, the H-N may partially illuminate and flicker. The flicker/low light illumination is likely the result of voltage back feeding though other loads in the circuit. The N-G will not illuminate since there is no voltage difference. Turning the switch ON will fully illuminate the H-N light. The H-G will illuminate if it is a grounded receptacle and will remain unlit if it is ungrounded.

Installing a jumper wire from the neutral to the 3-prong receptacle ground lug is referred to as a Bootleg Ground. This will produce a false reading with our favorite 3-light tester. The H-N light will illuminate since a voltage difference exists. The N-G light will not illuminate since the neutral is providing the same voltage to both and no voltage difference exists. The neutral caries the return voltage to the utility. That means that when we plug a grounded plug into this receptacle, it can energize the metal case, etc. of the appliance with any voltage present on the neutral. Yet our handy 3-light tester will indicate a properly wired and grounded receptacle. In fact, no ground exists and we have voltage present on the clothes washer metal case.

Worse, our 3-light tester will fail to detect one of the most dangerous miswiring situations conceivable. This is a 3-wire plug wired with the polarity reversed AND a bootleg ground. How could that happen you ask? It is far easier than you might imagine. A reverse polarity receptacle upstream feeding a downstream receptacle is all it will take. Now add a bootleg ground and you have a ground that is energized with full line voltage.

Left: 3-Prong with Bootleg Ground Tests as OK.

How will our 3-light tester behave? The H-N light will illuminate since there is a voltage difference between the pair. The H-G light will illuminate since a voltage difference exists. The N-G light will not illuminate since there is 120 VAC on both the neutral side and ground - so no voltage difference exists. In this situation, the clothes washer enclosure has 120 VAC applied to the metal case and frame. Touching it without being grounded is like the bird on the power line. No path to ground means no current flow so nothing happens to the bird. All we need is for someone to stand in some water on the garage floor, touch the properly grounded clothes dryer at the same time as the washer, touch

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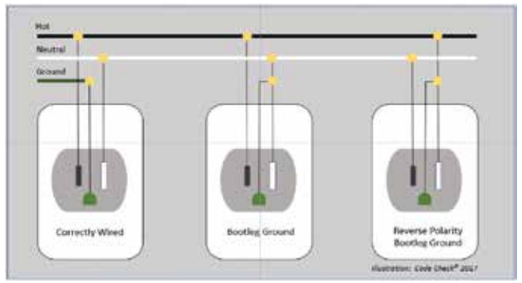
the sink faucet and washer at the same time, etc. A disaster waiting to happen.



The above receptacles will all test as properly wired even though the center receptacle has the neutral current on the ground and the right side has 120 VAC on the ground!

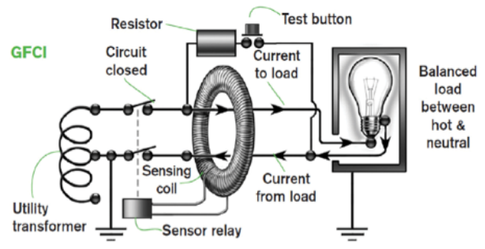
Newer GFCI's are required to disconnect when they detect a reverse polarity wiring condition. This disables the receptacle and forces the homeowner to call for service. Older GFCI's don't have this logic and will not detect a fault when wired with the polarity reversed. Older GFCI's wired reverse polarity will still test proper using the built-in test function.

GFCI's look at incoming versus outgoing current flow. Since they are looking at the "wrong" leg – the Hot side is really the neutral, they don't see the fault. Neither old or new GFCI receptacles will disconnect an energized ground when they trip. So even if the GFCI does trip, the ground is still energized with full line voltage.

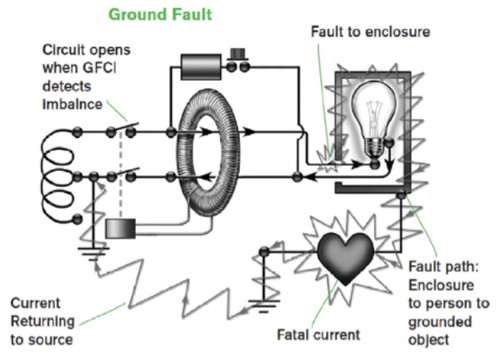
As inspectors, our challenge is to see both the forest AND the trees. Everyone's natural tendency is to accept what your tools tell you as fact. Hopefully, the take away here is – maybe you can trust your 3-light test, but not so much. The common 3-light tester may have a place in our tool bags. It is critical to understand the limitations of the device. The results must be filtered through the context of the house we are inspecting. If you are seeing only knob & tube wiring and all the receptacles test as grounded – there just may be more to the story than our tester is letting on. The next time the hair on the back of your neck stands up – is it your special inspector "Spidey" senses going off? Or is it the neutral voltage from that bootleg ground on the range receptacle causing it? This is probably not the right time to trust your handy-dandy 3-light tester…. It probably is the right time to recommended a full evaluation of the system by a qualified C-10 electrical contractor.

Skip Walker is a CREIA Master Inspector, an ASHI Certified Inspector, an ICC Certified Combination Residential Building Inspector, an ICC Certified California Residential Building Inspector and a FIRE Certified Fireplace Inspector. He has presented at a number of local, state, regional, and national inspection conferences, the National Association of Realtors®, the California Association of Realtors® and the New York City Council Building and Safety Committee on smoke alarm performance and CO poisoning issues. Walker has served in numerous capacities for CREIA and ASHI and written extensively on smoke alarms, CO issues, and general inspection issues. He is the recipient of the 2014 ASHI Philip C. Monahan Award, ASHI's highest honor, the 2014 ASHI President's Award, the 2014 CREIA John Daly Award, CREIA's highest honor and the 2011 CREIA Inspector of the Year. Skip's home has ONLY photoelectric alarms installed. You may reach Skip by email at: homeinspection@sanbrunocable.com

Look at the House as a System:



When a ground fault occurs, more current flows to the load than flows from the load. The difference goes to ground. This differential in current flow creates a magnetic field that the sensing coil detects. The sensing coil signal the relay to open the circuit. The relay opens the hot and neutral legs only.



Illustrations Courtesy Code Check Electrical 8th Edition

JERRY'S CODE CORNER

Focus On Receptacle and Luminaire Requirements in Older Homes

CONTRIBUTED IN MEMORY OF JERRY MCCARTHY BY SKIP WALKER, MCI

Inspecting in California can be a challenge. The housing stock in many areas is largely post WW ll. Meaning many properties include older ungrounded wiring methods such as Knob & Tube or NM (cloth wrapped/rag wire).

Over the years, many of these older electrical systems will have likely been modified. In many cases, the alterations were made piecemeal. So, seeing EMT, BX, AC, Solid Aluminum NM and newer NM cable intermixed with original wiring systems is almost an everyday occurrence for us.

As properties are readied for market, it is a common practice for the interiors to be painted and light fixtures and receptacles to be replaced. Partial kitchen and bath remodels, changing out appliances, etc. are also part of the sales game. Agents know that visual appeal is the key to getting the maximum amount for the property. Of course, all this work is done by appropriately licensed contractors and all work is permitted. Umm…. Not so much around me and I'd wager it is the same or worse elsewhere.

This "Code Corner" will focus on receptacles and luminaires in older homes. We will look at the requirements if everything is left as it was originally built and what happens if we start changing out or adding receptacles.

Both CREIA and ASHI SOP's require testing a representative sampling of the receptacles and exclude determining whether something was remodeled, etc.

The *CREIA Standards of Practice* on testing receptacles read as follows:

SECTION 6 - ELECTRICAL

A. Items to be inspected:

1. Service equipment
2. Electrical panels
3. Circuit wiring
4. Switches, receptacles, outlets, and lighting fixtures

Per the CREIA SOP's, we are not required to determine if something is not original to the property. But understanding the implications of changes can be useful in making sense of what we see during an inspection. Nothing discussed here is intended to expand on the scope of the CREIA SOP's.

For practical purposes, most of the general use circuit wiring installed before circa 1964-1965 won't have a circuit ground. In earlier codes, the outlet boxes were required to be grounded even though the receptacles were not. Initial requirements for grounding go back to circa 1918, but had exceptions and lack of uniform jurisdictional support. The *1962 NEC* required circuit grounds but was not immediately adopted in all jurisdictions. I use 1964-65 as that is what I typically see in the SF Bay Area.

Some older installations may have 2-prong ungrounded receptacles, but may include a means to ground the circuit. This might be EMT and metal boxes, older grounded rag wire where the ground was not utilized, etc. In cases where a grounding means is present, it must be utilized on replacement of the receptacle or luminaire. The box grounding method may not meet current codes, but will generally be sufficient to allow a fault to clear safely. With a grounded box, it would be acceptable to use a bonding jumper from the box to the ground lug on the device or use a self-grounding receptacle with a captive screw, on the yoke. See *2016 CEC* 406.4D4

REPLACEMENT RECEPTACLE REQUIREMENTS IN UNGROUNDED SYSTEMS:

In older homes, there may be no easy way to rewire to get grounded receptacle. Fortunately, articles 250.130(C) and 406.4D2b&c of the *2016 CEC/2014 NEC* give us several alternatives to comply:

You may replace an existing ungrounded receptacle with a 2-prong ungrounded device with a 3-prong grounded receptacle in an ungrounded system if you do one of the following:

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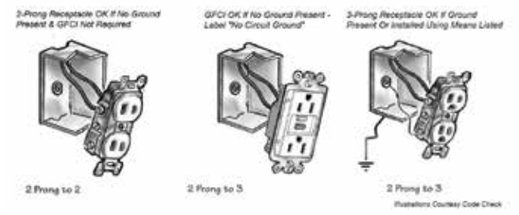
1. A circuit ground is run from the receptacle enclosure to any accessible point on the grounding electrode conductor. If a water pipe was used, this means within 5 feet of the entry point.
2. A circuit ground is run from the receptacle enclosure to circuit grounding terminal bar within the enclosure where the branch circuit for the receptacle or branch circuit originates.
3. A circuit ground is connected to a grounding conductor that is part of another branch circuit that originates from the same enclosure where the branch circuit for the receptacle or branch circuit originates (this method is new in the *2016 CEC/2014 NEC*).
4. For both grounded and ungrounded wiring systems, a circuit ground is connected to the grounded service conductor within the service equipment enclosure.
5. A GFCI receptacle may be installed even if no circuit ground is present if the face is marked "No Equipment Ground."
6. An upstream GFCI may protect downstream 3-prong receptacles with no circuit ground present if the face is marked "GFCI Protected" and "No Equipment Ground."



Extensions to an ungrounded circuit must be grounded. See *2016 CEC* 250.130(C). Appliances that have a 3-prong grounded plug must have a grounded receptacle. This typically includes refrigerators, dishwashers, garbage disposals, ranges, clothes washers, dryers, sump pumps, etc. More broadly, appliances with metal cases and 3-prong cords must be connected to a grounded receptacle – not one of the ungrounded alternative installations mentioned above. Appliances that are double insulated will have 2-prong cords and are exempt from this requirement. The appliance manufacturer will also require a circuit ground. Using ungrounded circuits with appliances that require a ground will generally void the manufacturer's warranty. See *CEC* 250.114.

"Bootlegging" a ground involves putting a jumper between the receptacle neutral and the ground. This is not just improper - it can result in extremely unsafe conditions. The neutral carries current back to the utility. Connecting the neutral to the ground allows appliance metal enclosures, frames, etc. to become energized. Bootlegging receptacle grounds is no different than bonding the neutral buss and ground buss or case at a sub panel. Bonding neutrals to ground after the main panel has been specifically disallowed since the earliest editions of the *NEC*. See *2016 CEC* 250.142B.

All receptacles replaced in areas that now require GFCI protection must have GFCI protection installed. Meaning, that all new or replacement receptacles in baths, kitchens, laundry area (even if no sink is present), garages, the exterior, etc. must be GFCI protected regardless of wiring type. New or replacement receptacles within 6 feet of a sink, tub or shower must be GFCI protected. This includes a receptacle around the corner from the shower in the adjacent closet or bedroom. The dishwasher circuit is specifically required to be GFCI protected. A replacement of the dishwasher receptacles triggers a mandatory upgrade. See *2016 CEC* 210.8D. As an appliance circuit, it must also be grounded. GFCI protection would also be required for a garage vehicle door opener whether the receptacle was replaced or it was added. All GFCI resets must be readily accessible. This means that the reset for the vehicle opener cannot be on the ceiling. See *2016 CEC* 210.8.

2016 *CEC* ARTICLE 100 DEFINITIONS:

Accessible, Readily (Readily Accessible). Capable of being reached quickly for operation, renewal, or inspections without requiring those to whom ready access is requisite to actions such as to use tools, to climb over or remove obstacles, or to resort to portable ladders, and so forth.

In general, any receptacles replaced in areas where AFCI protection is now required must be AFCI protected. Meaning, replacement of receptacles in general living areas, bedrooms, and kitchens triggers AFCI protection requirements. Since AFCI's require a ground to function properly, AFCI protection is not required for receptacles in ungrounded wiring systems. Wiring extensions must be grounded, so new circuits or extensions would require AFCI protection.

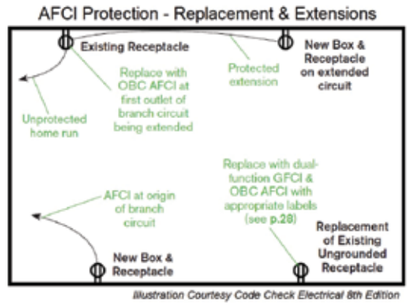


Illustration Courtesy Code Check Electrical 8th Edition

There are several ways to comply with the AFCI requirements. The circuit may be protected by a Combination AFCI breaker, a Dual Function Type AFCI/GFCI breaker, or an Outlet Branch

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Circuit (OBC) AFCI receptacles installed at the first receptacle on the circuit. Despite the word "Branch" in the name, OBC AFCI receptacles provide protection equivalent to a Combination Type AFCI breaker. AFCI resets must be readily accessible. Square D is selling a new series of AFCI and Dual Function GFCI/AFCI breakers that do not have a pigtail. Rather the neutral connection is made by an integral clip that contacts the neutral buss. The panel must be a model intended for this new style breaker.

Dual Function GFCI/AFCI Breakers Found Recently at a New Build Home – This is a No Pigtail Style Note: Square D Dual Function Breaker Reset Button Is Color Coded Purple – Right Image by Square D

There is an exception to AFCI upgrades where the wiring extension is six feet or less and where no new outlets or devices are installed. This was done to make it easier to move a panel out of a closet without triggering AFCI upgrades for the area served by the panel. See *2016 CEC* 406.4D4.

The *2019 CEC* code cycle will provide several additional alternatives to comply. Those alternatives are either too convoluted to be practical or the technology required doesn't exist as of now. For ungrounded wiring, the *2019 CEC* will permit GFCI protection for new receptacles in ungrounded wiring systems if running a GEC would be impractical and the panel cannot accept AFCI or Dual Function AFCI/GFCI breakers. Even though we are moving towards every circuit being AFCI protected, it is unlikely that we will see a single AFCI breaker allowed at the main disconnect. A single AFCI breaker would make it more difficult to isolate a fault.

When replacing receptacles in areas required to have Tamper Resistant (TR) receptacles, replacement receptacles must be a TR type. This includes all required receptacles. In general, receptacles over 5 ½ feet off the floor, that are not accessible due to appliances not normally moved, etc. are not required to be tamper resistant. Ungrounded 2-prong receptacles are exempt since there are no 2-prong TR-type receptacles available. See *2016 CEC* 406.12 and 210.52.

All replacement or new receptacles in areas that now require Weather Resistant (WR) receptacles must be WR type receptacles. This includes all receptacles in damp or wet locations. Damp locations include areas protected by eaves, under porch overhangs and similar areas. Reference *2016 CEC* 406.9 A & B1.

Receptacle covers have specific requirements as well. Metal covers must be grounded. Replacement covers in damp locations must be damp rated. Replacement covers in wet locations must be wet extra-duty rated covers. If a receptacle is permitted to remain ungrounded, the cover must be non-conductive material. See *2016 CECE* 406.6(B).

REPLACEMENT LUMINAIRE REQUIREMENTS IN UNGROUNDED SYSTEMS:

As with receptacles, if a lighting outlet is grounded – the ground must be used. Virtually all modern luminaires, bath exhaust fans and similar fixtures require 90° C wiring connections. Older wiring such as knob & tube, rag wire and pre-1984 NM cable, are rated at 60° C. Directly connecting older wiring to a new luminaire is improper and almost guaranteed to result in insulation damage to the old wiring. There is a provision for using tap conductors to isolate the old wiring with the new luminaire. The box for tap conductors must be a minimum of 1 foot and a maximum of 6 feet from the luminaire. The idea is to allow the heat generated by the luminaire to dissipate prior to transitioning to the old low temperature wiring. See *2016 CEC* 410.117A, B & C.

#14 conductors can be used on a 20A circuit between the added box & the luminaire box if the added box is min. 12 in. from the luminaire box & the wire is AC or MC or in a raceway & min. 18 in. max. 6 ft.
Illustration Courtesy Code Check Electrical 8th Edition

If the lighting outlet is not grounded, there are several alternatives to comply when replacing luminaires. In an ungrounded outlet, you may install a luminaire if it has no exposed metal parts. There is a provision to allow installing a separate circuit ground to the lighting outlet box. The separate ground requirements for luminaires are the same as the provisions for grounding a receptacle. Lastly, the lighting circuit may be GFCI protected. See *2014 CEC* 410.44X1-3. Track lighting must be grounded. See *2016 CEC* 410.155B.

Bathrooms are a favorite place to dress up for sale. An easy way to do that is to replace the lighting. All lighting installed in bathrooms that is less than 8 feet off the shower curb or tub rim and that is within the enclosure or a zone extending 3 feet from the enclosure must be damp or wet rated. See *2016 CECE* 410.10D.

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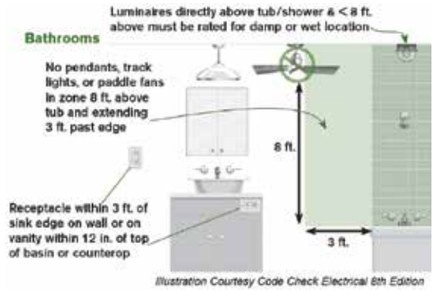


Illustration Courtesy Code Check Electrical 6th Edition

Any replacement or new lighting in areas currently requiring high efficacy lighting must be high efficacy lighting. This includes kitchens, baths, laundry rooms, utility spaces and garages. If new lighting is installed in baths, laundry's, garages and utility rooms, at least one light must be controlled by a vacancy sensor. Vacancy sensor controls are manual ON/automatic or manual OFF.

New recessed/can lights cannot contain screw lamp bases. Exterior lighting requires a manual ON/OFF coupled with either a photocell/motion detector or clock system that prevents lights from being left on in daylight hours or being left on for more than 6 hours continuously. See *2016 CA Energy Code* Section 150 and 110.9. Recessed light LED conversion kits must now be listed. See *2016 CEC* 410.6.

The intent of the "Code Corner" series is not and never has been to infer that we should be doing code compliance inspections. It is to provide a code backdrop to assist you in making better calls as you inspect. The codes do have some influence what we say when we inspect. If brand new construction had a balcony guard that was 34-inches high – what would you say? Since 42-inches guards has been the minimum height since Jan 1, 2008, I would hope that isn't a recommended upgrade. It is just plain wrong. Likewise, when someone has recently installed 3-prong non-TR receptacles in an ungrounded wiring system, that isn't just a bad idea - it is wrong. We all make business decisions as to how we report a given condition. That is what makes this profession an adventure. Hopefully, you have a little broader understanding of what you should be seeing under these various scenarios and the confidence to make your calls accordingly.

This article was reviewed and modified by Skip Walker, MCI, IF.

CHAPTER MEETING HIGHLIGHTS

SILICON VALLEY ASHI/CREIA CHAPTER WALKS TO END ALZHEIMER'S!

Today, more than 5 million Americans have Alzheimer's and that number is expected to grow to as many as 16 million by 2050. In 2016, for every $100 spent on funding Alzheimer's research, $16,000 is spent by Medicare and Medicaid caring for those with the disease. Our future is at risk unless we can find a way to change the trajectory of this disease.

For the fourth consecutive year, the Silicon Valley ASHI/CREIA Chapter has fielded a team in the San Jose Walk to End Alzheimer's disease. Each year, the team has grown along with the amount raised.

The 2017 walk was our best EVER! Team SV ASHI/CREIA ranked as number 13 out of 378 teams in terms of fundraising. This year, Team SV raised an amazing $11,420 for Alzheimer's research. That compares to a respectable $3,500 last year.

This year, SV fielded a total of 13 walkers that was comprised of inspectors and several spouses. Steve Fishman, CCI was our number one fundraiser this year. Steve raised a team record $4,800! This achievement ranked Steve number 15 in overall fundraising in the entire walk.

This year the walk had 3160 participants. Team SV had three people in the top 75 fundraisers. Steve Fishman ranked 15th, Skip Walker at number 28 and Bill Crook at number 62. All three qualified as ALZ Grand Champion level fundraisers.

Every one of use either knows someone with dementia, has a family member affected by it or will be personally impacted. The 2017 ALZ Walk is over but fundraising is a year round effort. Consider making a tax-deductible donation to the Alzheimer's Association at http://act.alz.org/goto/team-svinspector.

Team SV ASHI/CREIA would like to issue a challenge to our fellow ASHI and CREIA members in California. Form your own chapter team. The winning team gets a round of beer courtesy of the lowest ranked team at the conference following the 2018 ALZ Walk's.

CREIA 2018 ANNUAL CONFERENCE

Are Your Business and Inspection Skills Elevated for New Technologies & Energy Systems?

THE WESTIN SOUTH COAST PLAZA
COSTA MESA, CALIFORNIA
APRIL 27 – 29, 2018
PRE-CONFERENCE APRIL 25 – 26, 2018

CREIA is the oldest and largest nonprofit state inspector association in the country...and we are California-specific in our education and consumer outreach. Since 1976, CREIA has been dedicated to enhancing consumer protection and promoting public awareness. California Law specifically mentions CREIA as an industry benchmark!

The 2018 Conference Committee has built a conference schedule to cover inspection basics; niche/special opportunities geared to those with intermediate to advanced knowledge; and commercial inspections. Over 30 ASHI/CREIA CECs possible with Full Conference Registration!

Start planning to attend the CREIA Conference today!

The CREIA Conference is a not to miss event! Early bird registration ends February 1, 2018!

For more information and to register go to:
www.creia.org/2018-annual-conference

CONFERENCE HIGHLIGHTS

- Wednesday and Thursday Pre-Conference Sessions
- Thursday Group SOP Inspection
- Friday, Saturday, and Sunday Educational Sessions
- Friday CREIA Welcome and Exhibitor Appreciation Reception
- Saturday Annual Business Meeting, Legislative Update & Awards Lunch
- Exhibitor Showcase – view the latest products and services offered by the many vendors that will be present
- Several opportunities for networking with your peers
- Excursions planned for guests of Conference registrants
- Sessions are approved for ASHI/CREIA CECs
- Many sessions are ICC approved

SCHEDULE-AT-A-GLANCE

Pre-Conference

2 Days – April 25 & 26, 2018

Wednesday, April 25, 2018

7:30 am – Pre-Conference Check-in & Registration

and Continental Breakfast

8:30 am to 5:00 pm – Pre-Conference Program

CRT Infrared Toolbox, Bill Fabian

(Day 2 of 2 – $495 for both days, lunch included – 12 CECs total)

Software Day (6 CECs)

8:30 am to 10:00 am – *3D Software*

10:30 am to 12:00 pm – *Home Gauge*

1:30 pm to 3:00 pm – *Inspector Pro Software*

3:30 pm to 5:00 pm – *Spectacular Software*

Thursday, April 26, 2018

7:30 am to 5:00 pm – Check-in

Continental Breakfast (until 8:30 a.m.)

8:30 am to 5:00 pm

CRT Infrared Toolbox, Bill Fabian

(Day 2 of 2 – $495 for both days, lunch included – 12 CECs total)

NHIE Study Session, Michael Casey (6 CECs)

Pool Certification Program (30), Michelle Kavanaugh/Alex Stewart

($150.00 additional fee – 6 CECs)

1:00 pm to 5:00 pm

Off-Site Group SOP Inspection

(12:30 sharp check-in at registration desk – 4 CECs)

5:00 pm to 7:00 ptm

Exhibitor Set-Up

CREIA Annual Conference

Friday, April 27 – Sunday, April 29, 2018

Friday, April 27, 2018

(6 CECs for Friday; 7.5 if registered and attending lunch presentation at extra fee)

7:30 am to 5:00 pm

Registration & Check-in | Exhibit Hall Open

7:30 am to 8:30 am

Continental Breakfast

8:00 am to 8:30 am

Chairman's Welcome Message, Ken Collins, CCI, Exhibit Hall

8:30 am to 10:00 am – Breakout Sessions (1.5 CECs)

CAL Green Title 24 Part 1, Gary J. Shushnar

Legal Issues - Report Writing, David B. Madariaga

Combustion Air Qualifications for Gas Fired Equipment, Dan McLaughlin

10:00 am to 10:30 am – Break

10:30 am to 12:00 pm – Breakout Sessions (1.5 CECs)

CAL Green Title 24 Part II, Gary J. Shushnar

United Infrared Drone Inspection, Peter Hopkins

Bonding & Grounding Residential, Matthew Norwalk

12:00 pm to 1:30 pm

Lunch Presentation: Steve Freeman, LLC

($25 additional fee – 1.5 CECs)

1:30 pm to 3:00 pm – Breakout Sessions (1.5 CECs)

Environmental Awareness, Robert Menald

Presenting Inspection Defects to Clients & Realtors, Jack Gironda

Green Energy Codes, Ian Livingston

3:00 pm to 3:30 pm – Break

3:30 pm to 5:00 pm – Breakout Sessions (1.5 CECs)

Comprehensive Water Heater Workshop, Dan McLaughlin

Quick Books 101 Formation Basics, Steve Freeman

Bonding & Grounding Commercial, Matthew Norwalk

5:00 pm to 7:00 pm

Welcome Reception & Exhibitor Appreciation

Saturday, April 28, 2018

(6 possible CECs for Saturday; 7.5 if attending lunch presentation)

7:30 am to 5:00 pm

Registration & Check-in | Exhibit Hall Open

7:30 am to 8:30 am

Continental Breakfast

8:30 am to 10:00 am – Breakout Sessions (1.5 CECs)

Inspecting Electrical Service Entrances, Dave MacLean

Inspecting Attic Framing, Jack Gironda

Identify Stucco Issues, Gary Weaver

10:00 am to 10:30 am – Break

10:30 am to 12:00 pm – Breakout Sessions (1.5 CECs)

Inspecting Solar energy panels for proper structural support, Dave MacLean

Inspecting Veneers & Masonry Flashings, Dennis Parra

Report Writing Essentials – Following the Standards of Practice, Michael Casey

12:00 pm to 1:30 pm

Annual Business Meeting, Legislative Update, Awards Presentation & Lunch

1:30 pm to 3:00 pm – Breakout Sessions (1.5 CECs)

Inspecting Garage Doors & Electric Gates, Cassandra Naguiat

Control -4 Wi-Fi control systems, J.R. Sealy

Title 24 & The Mandatory Features, Dan McLaughlin

3:00 pm to 3:30 pm – Break

3:30 pm to 5:00 pm – Breakout Sessions (1.5 CECs)

Inspecting Retro Fit Windows, Marvin Windows

Managing Loss Control & The Realtor, Kevin O'Malley

Sunday, April 30, 2018

(6 possible CECs for Sunday)

7:30 am to 8:30 am

Continental Breakfast

8:00 am to 5:00 pm – Breakout Sessions (1.5 CECs)

FEMA p50 (25), Kelly/Marianne with CEA

Moisture intrusion (30), Joe Lstiburek

12:00 pm to 1:30 pm

Lunch on Own

The Location

The 2018 Conference will be held at the Westin South Coast Plaza, an elegant hotel retreat in scenic Orange County.

The hotel provides unmatched access to the best of the area – from exceptional shopping at South Coast Plaza (connected to the hotel via a pedestrian bridge) to Disneyland® Resort, Knott's Berry Farm®, Segerstrom Center for the Arts, and South Coast Repertory. We're also pleased to provide a complimentary shuttle to and from John Wayne Airport (SNA) for your convenience.

Westin South Coast Plaza
686 Anton Boulevard
Costa Mesa, CA 92626

Group Rate: $159
Group rate cut-off date is April 5 or until the room block sells out. CREIA's group rate is available from April 22 through May 2, 2018.

Parking:
Self-Parking is offered at a discounted rate of $15/car

Shuttle:
Complimentary shuttle from John Wayne Airport (SNA)

Internet:
Complimentary wireless Internet

To reserve your room, go to:
www.creia.org/2018-annual-conference

INSPECTOR MEMBER **SPOTLIGHT**

We are happy to announce the recent achievement by Paul Barraza of the CREIA Master Certified Inspector designation.

Obtaining the Master Certified Inspector designation takes a lot of effort and dedication. CREIA backs and supports those on their path to this achievement with the hope that it acts as an incentive for us to outperform ourselves.

Congratulations to Paul for this accomplishment! Well done!

To earn the Master CREIA Inspector (MCI) certification, the following requirements must be met:

1) Have held the CCI membership in good standing for at least two consecutive years.
2) Receive an ICC certification as a Residential Combination Inspector, or Combination Dwelling Inspector.

   http://www.iccsafe.org/education-certification/certifications-and-testing/national-certifications/
3) Earn and submit proof of completing at least a total of two hundred fifty (250) CREIA-approved Continuing Education Credits in addition to the 30 CEC per year requirement.
4) Submit a signed affidavit indicating the completion of 1000 fee-paid inspections performed. The applicant's records shall be subject to audit, as seen fit by the Board of Directors in accordance to the CREIA Standards of Practice.
5) Pass a master level ride along review, as established by the Board, with a Master CREIA Inspector (MCI).

Congratulations Mike Okamura, CCI and ICC Certified California Residential Combination Inspector!

Mike Okamura took the 2013 California Residential Building class, presented by Skip Walker, MCI in southern California a few years ago. Mike mentioned to Skip that he had only taken the class because he realized that he was up for renewal and needed the CECs. Mike had never opened a code book before the class; however, after the class he decided, why not take the ICC J1 exam? — He did and he passed.

Mike then took the Mechanical and Plumbing classes, presented by Neal Muckler, MCI, and passed both of those ICC exams as well. In May, he decided to take the electrical class — he took and passed the J2 electrical exam and now holds the ICC Combination Residential J5 credential.

Congratulations on this incredible accomplishment!

Congratulations to the following members who achieved their CREIA Certified Inspector (CCI) credential in 2017:

Lisa Brennan, CCI
Bruce Brotcke, CCI
Andy Dhus, CCI
Robert Emmett, CCI
Donald Liening, CCI
Mike Livingston, CCI
Cliff Mathieson, CCI
Scott McMillan, CCI
David Roth, CCI
Thomas Veatch, CCI

2017 AWARD WINNERS

Congratulations!
The following members were recognized during CREIA's 2017 Annual Conference:

Steve John, MCI,
2017 recipient of the John Daly Award

Skip Walker, MCI, 2017 recipient of the Inspector Fellow Award

Bob Guyer, MCI, 2017 recipient of the Inspector Fellow Award

Todd Edly, CCI, 2017 recipient of the Inspector Fellow Award

David Pace, MCI, IF, recipient of the 2017 Chairman's Award from Ken Collins, CCI

Palm Springs Chapter, recipient 2017 Chapter of the Year Award

Nominations for 2018 Awards will be coming soon! Those awarded will be recognized on Saturday, April 28, 2018 during CREIA's Annual Business Meeting, Legislative Update, and Award Luncheon at CREIA's 2018 Annual Conference, Westin South Coast Plaza.

InspecTest
THE GLOSSARY PROJECT

STANDARDIZED TERMINOLOGY FOR THE PROFESSIONAL REAL ESTATE INSPECTOR

1. A valve or device designed to prevent a cross connection: _____
2. An arrangement in a drainage system in which liquid discharged from a fixture, appliance or device enters indirectly into a sink or receptor from above its flood-level rim: _____
3. An approved device for preventing a cross connection between the potable water supply and waste or other contaminated sources: _____
4. The flow of water or other liquids in a system opposite its intended direction: _____
5. Device installed in a drain or pipe to prevent backflow of sewage: _____
6. A pipe composed chiefly of asbestos and Portland cement used to carry products of combustion from gas fired appliances to the exterior of a building: _____
7. A pipe built into a drainage system to provide air circulation to minimize siphonage and back pressure from affecting the function of the trap seals: _____

8 Piping installed to equalize air pressure in a drainage system to prevent trap seal loss or blowback due to siphonage or back pressure: _____

9. The vent or chimney and its connectors assembled to form a continuous open passageway from an appliance to the outside atmosphere for the purpose of removing products of combustion: _____
10. A system that depends entirely on the heat from the fuel being used to provide the energy required to vent an appliance: _____

ANSWERS:
(1) ANTI-SIPHON VALVE/DEVICE (2) AIR BREAK (3) ATMOSPHERIC VACUUM BREAKER
(4) BACKFLOW (5) BACKWATER VALVE (6) TRANSITE VENT (7)VENT, PLUMBING
(8) VENT SYSTEM, PLUMBING (9) VENTING SYSTEM, MECHANICAL (10)VENTING SYSTEM, GRAVITY-TYPE

AIDA: Attention, Interest, Desire, and Action, Part 1

BY ALAN CARSON

AIDA is an acronym that helps people write material that will persuade readers to act in a certain way. Whether you are creating an advertisement, a blog post, a video, a brochure, a direct mail piece (such as a postcard), or a newsletter to send to real estate agents, you should be thinking AIDA.

AIDA stands for the following:

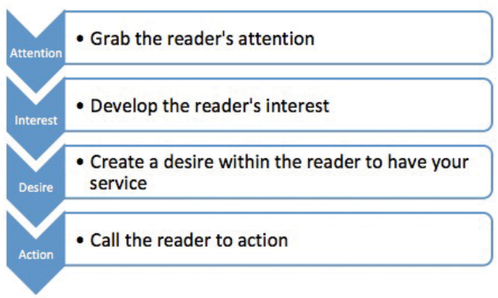
- Attention
- Interest
- Desire
- Action

Let's look at each component of AIDA in detail. Whether you are thinking about homebuyers, real estate agents, or both, AIDA applies.

ATTENTION

Immediately grab the reader's attention with a headline and subhead. Because advertising fills our daily lives—ads cover almost every conceivable surface and fill the airwaves—most of us have become desensitized to them. We look but we don't see. Successful advertising finds a way to break through our desensitization. For instance, some have used shock tactics to get our attention. It doesn't matter if the shock tactic has nothing do to with the product or service. The goal is to jar us and create a memorable connection to the product or service. Humor is another tool of the advertising world. If the advertiser can make us laugh, we may remember the product or service with fondness. The goal is to make a connection in the consumer's mind between something pleasant and their product or service. We have seen shock value and humor both used effectively in home inspection advertising (note: although sex is prevalent in advertising, we do not believe it works in home inspection advertising!). An image, in addition to or instead of words, might also function to grab your audience's attention.

Here are a few tips you can try:



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USE ACTION PHRASES

Keep the attention grabber short. For example, don't say, "Get a Home Inspection to Protect Your Investment." The "get a home inspection" part is not necessary for a headline because the reader will realize they need a home inspection when they read the next lines of your ad. Some better headlines follow:

- *How to Avoid a Money Pit*
- *Don't Gamble When Buying a Home*
- *Reduce the Risks in Buying a Home*
- *How to Avoid Buying a Lemon*
- *Will Your Dream Home Become Your Nightmare?*
- *Invest $400, Save Over $10,000!*
- *Knowledge Is Power—Let Us Empower You*
- *Protect Your Investment*
- *Make the Right Decision*
- *Don't Get Burned*

You will notice that these titles create a problem and suggest there is a solution in a few words. The idea is to grab the reader's attention by telling them that buying a home can be a big financial risk, and that the home inspection dramatically reduces the risk.

The word Free usually makes people look twice. If you can't incorporate the word in the headline or subhead, you should incorporate it in another key area of your ad. You would think that with so many companies offering things for free, readers would have become desensitized, but it hasn't happened. So what can be free about a $450 home inspection? You can offer the following:

- a FREE home encyclopedia for every client
- a FREE checklist for clients of things to look for in a home during the home buying process
- a FREE telephone consulting for as long as the client owns the home
- a FREE first-time buyers' seminar

Now that you have grabbed your reader's attention, you need to develop their interest. Present the most important and interesting aspect of your service up front. There should be a seamless flow from reading the headline to reading a very important and interesting piece of information. For example, ask: "Did you know that 40 percent of homes in the Chicago area have wet basement problems?"

DESIRE

After you have the reader's interest, you should increase the reader's desire for your product or service. State the benefits from the reader's perspective. For example, you could say: "You have enough tough decisions to make in buying your new home.

Our professional evaluation of the home gives you one less thing to worry about."

Remember, the benefits are more valuable than the features to your prospect.

ACTION

GIVE THEM A REASON TO ACT

At the end of your advertising, public relations or sales campaign, remember to ask the reader to do something. This is called the call to action. Tell the reader what the next step is and invite him or her to take it. If you don't do this, your advertisement is empty. The reader thinks, great, this is good information and then forgets about it. Here are a few examples of how you might call the reader to action:

Again, use the word "Free." Here's an example: "Call now to receive a FREE Home Improvements Costs package."

INCLUDE YOUR PHONE NUMBER AND WEB ADDRESS

The call to action can be as simple as, "Call now, at 1-800-555-1212, or visit us at www.inspectioncompany.com to book your inspection". It's good to include your phone number and web address in the call to action, even if it appears somewhere else in the ad.

Create some sense of urgency. You might say, "Inspection time slots book up fast.

Call now to reserve your preferred time." Home inspection is a time sensitive service. Because the odds of a reader needing a home inspection when reading an ad are low, you might make the call to action a limited-time offer for a discount coupon for a home inspection, or a free booklet that helps them screen homes, showing them a list of common problems to watch for.

Adding color photos of house defects makes this a dramatic and valuable piece. The problem list and photos heighten homebuyers' awareness of risk and give them a better appreciation for the value you provide. There may be a little shock value in the pictures.

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The following example takes you through the AIDA process. This ad is mailed to past clients, offering an indoor air-quality inspection one year after the owners have bought the home.

Please note: This ad has no basis in fact. We're using it for illustrative purposes only. (As you go through this fictional ad, see if you can identify the features and benefits statements)

IS YOUR HOME KILLING YOU?

Title Attention Interest

Is your health suffering? Do you or your family often feel ill in your home? Many families spend their lives breathing contaminated air. They never make the connection between their poor health and the air in their own home.

Fact: One in ten people suffer from asthma.

Fact: While there are effective treatments for an asthma attack, the best solution is to remove the asthma triggers from your environment.

Fact: Allergies have a compounding effect, and most people with allergies are allergic to several things. If you are allergic to dust, pollen, and smoke, you may get rid of all your symptoms by reducing only one of the three allergens.

Fact: The air quality in nine out of ten homes can be improved by 75 percent at little or no cost to the homeowner.

Create Desire:

Our indoor air-quality assessment can get you the answers you need. As a past client, you will receive our service at $245, rather than our normal fee of $300.

We will identify sources of indoor air contaminants and give you expert, unbiased advice on how to improve the quality of the air you breathe. We have no affiliation with any contractor or manufacturer, and we don't do repairs or sell products. We just give you the advice you need. Our recommendations can most often be implemented with little or no cost.

You and your family will enjoy a healthier existence and a better home life. Here is what some of our customers are saying:

"Thanks so much. The solutions you gave us are worth their weight in gold. We never knew it was so easy to improve the quality of the air we breathe." – D. Johnson, Washington, DC.

"I can't thank you enough. Because you put the cover back on the furnace filter cabinet, my headaches have completely disappeared." Sincerely, J. Walsh, Chicago, IL.

Action:

Call 555-1212 now to book an inspection time. Mention this letter and you will receive the inspection and the detailed report for $245 instead of our normal fee of $300.

PS: Make sure you book an appointment when you can spend time with our expert in your home. Our clients say the education they get during the inspection is as valuable as the inspection report itself.

SUMMARY

This example concludes our discussion of AIDA, but we hope that you will refer back to this article as you develop your materials designed to persuade people to use your service.

Alan Carson, Carson Dunlop, www.carsondunlop.com, 800-268-7070

REMINDERS ABOUT
RISK MANAGEMENT

BY MICHAEL CASE, MCI

This article will discuss several issues I am seeing recently regarding claims, and some non-attorney advice to help reduce claims:

1. Septic Tanks. I am still seeing claims about septic tanks, when the inspector identified municipal sewer in the report. First, why are you doing this? It is not required by *B&P* 7195-99 or any Standards of Practice I have seen. Take it out of your reports. Here's some tidbits that might help convince you; one claim was because a septic tank was found in the front yard, and the outlet was connected to municipal sewer. Obviously, the tank was not properly abandoned, and filled with solids. Another was because the house was on septic, with a tank in the back yard. The owner disclosed the house as on sewer, and provided 10 years proof of payments to the city for city sewer. The city gladly refunded their sewer fees. However, there was still a septic tank to deal with, and hook up to city sewer. Finally, another was regarding an abandoned steel tank in the back yard, whilst the house was actually connected to city sewer as the inspector reported. Be sure to disclaim in your contract anything underground.

2. Rotted wood casement windows. I see a lot of claims about wood casement windows rotted at the bottom frame and at the bottom of the window sash, mostly where the mechanism connects. There are a lot of crummy wood and clad wood casement windows out there. Look closely at these areas at the ones you open, and be sure to document windows you don't open and look, and that hidden damage may exist.

3. Leaks and or stains noted as "old" in the report. How do you know? Has it rained in the last day or so or has the plumbing fixture above not been used for months? I would recommend against using the "stains look old" or "probably from old leaks" comment. We really don't know. I would recommend identifying the stain, and recommending inquiry with the seller regarding the cause of the stain, and if successfully repaired. If the seller has no information or there is no "disclosure" required then the proper professional (plumber, roofer, etc.) should investigate and determine if the stain/leak is actually repaired.

4. Lastly, and related to item 3 above, is hidden damage potential. When you see stains or evidence of past moisture, and can't see above or below or inside, be sure to alert the client that hidden damage may exist and the only way to be sure is to open it up and look. I realize this can be difficult during a real estate transaction as someone would have to pay for it, and the seller would have to approve of the testing. However, this is not our problem, and reinforces that we can't see inside walls or ceilings.

Michael Casey, ACI, MCI, CNCS is the principal of Michael Casey & Associates and Director of Education with Home Inspection University. Both firms are CREIA Premier Educational Affiliate members. Mike has been a member of CREIA and ASHI for nearly 30-years. Mike can be reached at Mike@MichaelCasey.com

CONTROLLING MOISTURE FLOW IN THE BUILDING ENVELOPE

BY ALAN CARSON

The concept of a house as an environmental envelope is a helpful one. A home is an artificial environment surrounded by a huge natural environment. This is a problem because –

- we can't isolate ourselves from the natural environment or we'd have no fresh air to breathe.
- we can't completely control the interaction between the indoor and outdoor environme nts.

This leakage of indoor air outside, and outdoor air into our homes is necessary and yet troublesome. A house is not a tightly sealed chamber isolated from the world outdoors, but a rather loose envelope between the indoor and outdoor environments.

PROBLEM RECOGNIZED

As insulation strategies changed in the latter half of the 1900s, we recognized the need to control moisture (largely by controlling air movement). How did we approach the problem?

VAPOR RETARDERS OR AIR/VAPOR BARRIERS

We tried to reduce the air leakage through the roofs and walls. We created vapor retarders, now often referred to as air/vapor barriers, to reduce the movement of air through the building envelope. As the name suggests, we used to think vapor diffusion was the big problem. We now know air leakage is a far bigger problem.

POLY REPLACED KRAFT PAPER

Older air/vapor barriers were of kraft paper, often attached to fiberglass or mineral wool batts. Since these were typically laid between ceiling joists or wall studs, they were not continuous. While imperfect vapor barriers can perform their duties reasonably well, an air barrier that is not continuous is not very useful at all. Modern air/vapor barriers are typically polyethylene films. Considerable attention is now given to creating a continuous air/vapor barrier to minimize air leakage.

VENTILATION OF ROOFS AND WALLS

Despite the use of continuous air/vapor barriers, we were not 100 percent successful at stopping leakage of warm, moist air into cool wall and roof spaces. As a result, increased emphasis was placed on ventilation of roof and wall spaces. Much more attention has been paid to roofs than walls. Soffit vents, ridge vents, gable vents, and vents in the field of the roof are all designed to help flush moist air out of roof spaces, replacing it with cold, dry air. There are some problems with this approach, which we'll discuss later.

TIGHTER ROOF SHEATHING

Ventilation has also become more important as loose-laid planks and wood shingle roofs have been replaced with plywood and waferboard sheathing and asphalt shingle roofs. The old plank and shingle or shake roofs were fairly leaky and allowed moisture to be flushed out quickly. The new panel-type roof sheathings and asphalt shingles allow less air movement.

Mold on sheathing suggests issues with attic moisture

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WALL SHEATHING HAS CHANGED

Wall sheathing is like roof sheathing in that the materials and methods have changed over the years. Loose plank sheathing has been replaced with plywood, gypsum board and OSB. These modern panel-type sheathings allow much less air into and out of the walls.

SIDING TREATMENTS

In some cases, we have attempted to allow siding materials to breathe. Aluminum and vinyl siding, for example, are loose-fitting cladding materials with drainage holes in the bottom of each section. However, other siding materials do not allow much air movement and flushing of moisture. Stucco treatments and panel-type sidings (plywood, fiber-cement and OSB, for example) provide very little opportunity for flushing out moisture.

Poorly sealed synthetic stucco (EIFS) can have serious implications

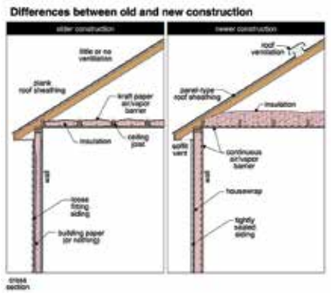
HOUSEWRAP VERSUS BUILDING PAPER

In many parts of North America, loosely fit building paper between the sheathing and the siding has been replaced by tightly fit housewraps. These restrict air movement while allowing vapor diffusion through. It's like putting a big windbreaker on your house.

A GOOD THING OR A BAD THING?

Housewraps, like building paper, are also a second line of defense against moisture such as wind-driven rain. Water that leaks past siding is stopped by the housewrap.

There is considerable discussion about whether housewrap is a big step forward or not. While we understand the issues, we are not in a position to quantify the importance of each and predict the long-term positive and negative effects of housewrap versus building paper. We suspect the results will vary case to case because there are so many factors involved in building envelope performance.



HUMIDIFIERS

Some homes try to control moisture directly with humidifiers. When homes in cold climates were very leaky, the large number of air changes meant we were always warming up cold air. This cold air had very little moisture in it and, as a result, our houses always felt dry during the winter. Humidifiers were added to furnaces to raise the humidity levels. As construction got tighter and the number of air changes per hour reduced, the need for humidifiers has, in many cases, disappeared.

NEW WINDOWS MAY HURT

This isn't well understood by many homeowners who continue to add humidity to their homes. They are frustrated by condensation on windows and sliding glass doors. This often leads to replacement of windows and doors with better insulated, more tightly sealed, units in an effort to eliminate condensation. In most cases, the problem isn't the quality of the windows and doors – it's the elevated moisture level created inside the house.

OLD WINDOWS INDICATED HUMIDITY LEVELS

Old windows were great. Moisture control in homes used to be easier. Many people ignored their humidistat on a furnace humidifier, but paid attention to the condensation on windows. As windows began to get condensation, people turned down the humidifier. They weren't trying to save their wall cavities; they were trying to prevent water damage to window sills and the walls below. Older, single glazed windows typically had a very cold surface. The cold glass would cool the air adjacent to the window, often to the dew point, resulting in condensation.

DOUBLE AND TRIPLE GLAZING

Modern windows are more energy efficient than old windows. The inner surface of the glass is warmer as a result of carefully spaced double or triple glazing. Insulated sashes help raise the temperature of the inner surface of the windows. Newer windows and doors are also tighter than old ones. They allow less air leakage.

A GOOD THING OR A BAD THING?

Modern windows don't lose heat as quickly as older windows (although their R-values are still quite low). We don't get condensation on windows as quickly, and, therefore, don't make the same efforts to reduce the humidity in houses that we used to. The reduced air leakage through and around new doors and windows leads to higher indoor humidity levels. While all this is nice for the homeowner and great for windowsills, it is hard on wall and roof cavities. If the house humidity levels are higher, occupants will be happier, but the building suffers. The warmer glass surfaces reduce one symptom, but don't do anything to stop moisture problems in walls and roofs.

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EXHAUSTING THE MOISTURE

Many people have realized that with fewer air changes we are elevating the moisture levels inside the home. Because people and houses generate moisture all the time, the longer any given bundle of air stays in the house, the more moisture it will contain. One strategy is to dump the warm, moist air directly outside. Exhaust fans close to sources of moisture, such as kitchens and bathrooms, make sense.

There are two advantages:

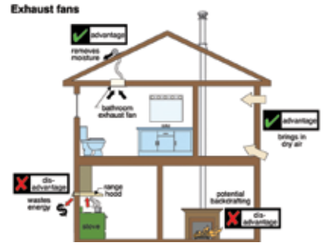
TWO ADVANTAGES

- Kitchen and bathroom fans throw out moisture with that air – moisture that could damage the building envelope.
- Exhaust fans lower the air pressure inside, relative to the outdoors. In cold climates, we've said that warm, dry air leaking in through the walls isn't a problem. The added benefit of exhausting warm, moist air is increased movement of dry air through walls and roofs.

There are also two disadvantages:

TWO DISADVANTAGES

- Exhausting air from the house wastes energy. We are throwing out air we have heated to a comfortable temperature.
- The lower indoor air pressure can cause backdraft of combustion appliances. Exhaust products from gas and oil burners and smoke from wood stoves and fireplaces may get into living spaces.



Alan Carson, Carson Dunlop - Consulting engineering firm devoted to home inspection since 1978. www.carsondunlop.com, CREIA Educational Affiliate.

THE CHECK IS IN THE MAIL

BY JOHN GAMACHE, CCI

Today, more than 5 million Americans have Alzheimer's and I would like to discuss a little trick I've recently discovered/rediscovered! How does increasing your cash flow sound? Do I have your attention now? I know most of us get paid at the time of the inspection and this is certainly the most preferred method. But there are always occasions when the client is delayed, forget their checkbook, or can't be at the site, etc.

Here are some suggestions for increasing the likelihood of quick payment:

Establish a merchant account with a bank and accept credit cards (I use the Square – squareup.com/reader). The problem here; however, is that banks and the Square want to dip their beaks to the tune of one to three percent of transaction total. Some banks charge monthly maintenance fees as well. Many clients find that their credit cards feature bonus points as a benefit. But, guess who pays for those points? So if you accept credit cards or planning on it, consider raising your rates. Ah what the heck… Raise your rates anyway!

If a client doesn't have access to his/her checkbook and you do not accept credit cards, you can suggest they drive to a nearby bank or you may offer to follow them to a nearby ATM. I find this to be time-consuming and somewhat untrusting. I have heard (addressing rumor control) to hold off issuing reports until payment is received, although, this doesn't seem like a great business practice either.

A little trick I recently began is carrying pre-stamped, self-addressed envelopes with me. I tell clients that I know that they have a lot going on and buying a new home is the craziest of times. I then give the pre-stamped, self-addressed envelope to the buyer and ask that they pop a check in the mail that evening. If I haven't received payment within a week or so (which seldom happens), I follow-up with a call or an email and ask if they have had a chance to mail the check, explaining that I was making sure payment didn't get lost in the US Postal System. (You know… the check is in the mail!).

People are no longer in the habit of sitting down and writing checks, addressing an envelope, and using snail mail. And if you think about it, whenever we get a bill via snail mail, it includes a return self-addressed envelope and other tools that will help to ensure payment is received a little bit faster, which is a good thing!

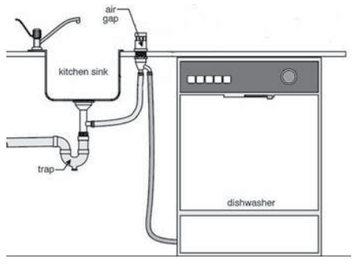
John Gamache, CCI, ACI, currently serves as Treasurer and Regional 8 Director on the CREIA Board of Directors.

The Dishwasher's Air Gap

MODIFIED BY JOHN GAMACHE, CCI, ACI

I would like to discuss a dishwasher's air gap. There seems to be some occasional misunderstanding regarding what function they perform.

All dishwashers built for approximately the last 30+ years have a built-in supply air gaps to prevent cross connection and possible backflow to the water supply. If you look at a dishwasher out of the box prior to installation, it is the hose looped above and into a funnel-like device on the side of the dishwasher. This is the built-in supply air gap.



Most dishwashers do not have built-in backflow prevention from the drain hose side. This is where the drain air gap device comes into play; to prevent contamination of the inside of the dishwasher, not the water supply. This usually would occur if there is a kitchen sink drain back up. The UPC (western code) requires that an air gap device be installed to prevent backflow into the dishwasher (see illustration). This device prevents backflow by keeping the connection above the flood level rim and having an opening to the atmosphere (prevents a siphon). Most IRC and other codes allow the high loop method (fasten the drain hose high at the underside of the countertop). This installation works in most cases unless a siphon occurs.

As you can see, the countertop air gap device for the drain prevents only contamination of the dishwasher, which is a disgusting event, rather than contamination of the water supply, a potentially hazardous event.

Note: The hose connection from the air gap to the garburator should not have a sag in it. It should gravity drain to prevent potential blockages from all of the yucky stuff and baloney sauce created when the garburator is operated.

This is a slightly modified reprint from an article I stole many years back.

Original author - unknown

John Gamache, CCI, ACI, currently serves as Treasurer and Regional 8 Director on the CREIA Board of Directors.

FIVE TIPS
FOR MANAGING CLIENT COMPLAINTS

BY JOSEPH DENNELER, ESQUIRE

Home Inspectors face many challenges on a daily basis. While safety concerns and accuracy of findings are important components of your work, managing client expectations and dealing with occasional complaints are also part and parcel of being a professional home inspector. While nobody wants to deal with disgruntled clients, on the rare occasion you do get a complaint your response to it is critical.

There certainly is no absolute right or wrong way to respond to client complaints. Many professional home inspectors have had success using their good instincts and prior experience to work through them. While my list is by no means exhaustive, these five steps have been proven effective to limit your risk and protect your reputation.

One caveat before we begin: if you have E&O insurance, your first call should be to the carrier or agent to report the claim and to get it on the record to ensure your coverage will respond in case you need it.

1. ACKNOWLEDGE THE COMPLAINT.

While an unhappy client is a problem, an unhappy and ignored client can cause a maelstrom. Giving the client no other recourse but to retain a lawyer or file a complaint with your licensing board or national association is never a safe bet.

It is important to also obtain a clear explanation from the client of the nature of their complaint so you can prepare for further investigation. The basis for the complaint may be something simple, related to your standards of practice or a condition you clearly identified in your report. Communicating with the client can give you an opportunity to immediately and decisively put a claim to rest.

Some of my clients prepare form reports for documenting client complaints or questions. Keeping an organized "diary" of the complaint process is important because it can help your attorney if the complaint becomes a lawsuit, and it can help you narrow the scope of your investigation to minimize the drain on your time. Even if you only receive a phone call from the client, acknowledge the complaint in writing in whatever fashion is appropriate. Complaints that become claims sometimes gestate for a year or more. Your recollection of events will never be clearer than immediately following that call. Documenting the complaint process will act as a timeline if needed later in the process.

2. VISIT THE PROPERTY AND INSPECT THE CONDITIONS.

You should always visit the property and personally observe the defects that form the basis of a claim. It gives you an opportunity to evaluate the conditions as they exist now versus when you inspected the property. Additionally, it gives you an opportunity to explain to your client why the condition was not discoverable during the inspection, or why it was outside the scope of your standards of practice.

Many claims arise after your client has done renovations or excavation of an area formerly obstructed by walls, floors and ceilings. Others arise after a severe weather event. The passage of time between your inspection and the notice of a claim can result in significant changes to the property. It is critical to identify potential defenses early in the claim process. Your insurance carrier or attorney needs to know early-on whether the alleged defect was hidden behind a wall now removed, or was in an area that was inaccessible for other reasons.

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Visiting the property also gives you an opportunity to snuff out a claim before it becomes a mental and financial drain on you and your business. Sometimes being able to explain to your client in person why a condition was not identified results in your client better understanding your scope of work and why a claim would be fruitless. If it's a smaller issue, you have the opportunity to nullify the claim and move on (with a signed release of all claims, of course).

There may be occasions where, based on the tone of the communications about the claim, you do not believe it would be prudent to visit the property and engage the client. Investigating the claim is no different than doing the inspection where your safety is concerned. If you believe it unsafe, then it's unsafe. A claim is not worth putting yourself in harm's way.

3. DOCUMENT THE EVIDENCE.

While visiting the site it is important that you document all of the conditions. This may be your only opportunity to record the conditions before repairs are made, or before the conditions worsen over time. In addition to fully photographing the conditions forming the basis of the claim, you should record any noticeable changes to the property since the date of your inspection.

Many of my cases involving home inspectors are not in litigation until a year or more after the inspection. By then repairs have been made, and the evidence I need to prove that a condition was hidden, or not visibly defective, is destroyed. Sometimes the condition gets worse in that time. I and any other lawyer representing an inspector in litigation, rely on you to preserve evidence of conditions at the time they were discovered when you are given the opportunity. Visual evidence is a powerful courtroom tool. Your photographs could form a meritorious defense. You should take any opportunity to preserve that evidence before a lawsuit is filed.

4. AVOID THE FLAME WAR.

The internet is the 20th century's version of the printing press. It is an amazingly effective tool for marketing to and connecting with others. It is also a boneyard littered with the skeletons of communications gone awry.

The advent of the digital age gave us consumer message boards, Facebook groups and many other avenues for sharing "ideas." I've seen a spike in requests for assistance with addressing negative posts on Angie's List, Yelp and other review sites. How you react to negative posts can greatly affect your defense if the complaint becomes litigation. You should assume that everything you post exists somewhere and can be retrieved. Everything. Responding in a less than professional manner to a client's critique of your skills will undoubtedly be evidence used in an arbitration or trial. Tailor any responses so that you avoid arguing the merits of the claim.

5. RESPOND IN A TIMELY, PROFESSIONAL MANNER.

How you respond to a client's complaint is important. All of your important communications with your client should be in writing. I've found that sending a dismissive response sometimes makes a difficult situation worse. I am certainly guilty of being blustery at times, but your written communication with a claimant must be a communication that can be read and understood by the claimant. This is not the time to make them pull out a dictionary or read a technical manual to find out what you mean.

I developed my methods for managing pre-litigation claims over years of trial and error. It is a part of my job as an attorney representing home inspectors. Responding to claims and complaints is hopefully not a routine part of your work. I'm happy to help you develop and manage your risk management plan. Much like you refer your clients to other professionals for specific problems, you should seek out experts in risk management and home inspector claims to help you with those specific problems. Let us know if we can assist.

Joseph W. Denneler, Esquire, is a trial attorney specializing in representing home inspectors in litigation. He developed his Claims Assist program to assist inspectors with managing risk. You can get more information about Claims Assist at www.inspectorclaimassist.com. Mr. Denneler is also a co-founder of InspectionContracts.com, a company providing home inspection contracts based on state specific home inspector regulations. You can order contracts online at www.inspectioncontracts.com. OREP insureds enjoy 25% these services.

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Pipe and Stack Flashings

BY ALAN CARSON

Most homes have round pipes penetrating the roof; for example:

- Plumbing stacks
- Electrical masts
- Exhaust vents from fans or combustion appliances

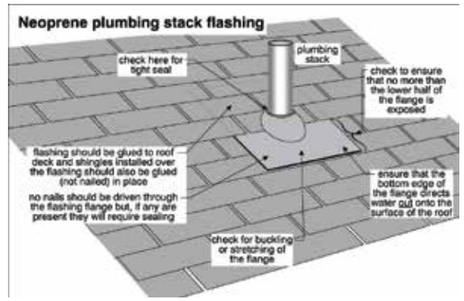
MATERIALS

These roof penetrations may be plastic, cast iron, steel, aluminum or copper. The flashing materials may be steel, rubber (neoprene), lead, copper or aluminum, or a combination of materials. These flashings are called roof jacks in some areas.

The flashing details are similar for any of these penetrations, although the approaches are different for sloped and flat roofs (Steep and low slope roofs). We'll focus on sloped roofs here.

SLOPED ROOF INSTALLATION

- The roof is shingled up to the height of the stack.
- With asphalt shingles, a shingle is typically cut and slid over the pipe.
- The flashing flange is then placed over the stack and sealed or nailed in place.
  - The flange is a flat rectangular surface that sits on the roof.
  - The flange typically has a tapered collar that is approximately the same diameter as the pipe.
  - Some flanges have an integral sealant or gasket that creates a seal when the flange is slid over the pipe.
  - In other cases a separate storm collar is provided.
  - Some flanges are friction fit only.
  - Some are gasketed.
  - Some are sealed with caulking or other sealants, and/or a draw band (band clamp).
  - Some flanges have a sleeve soldered to the flange with a return on the top of the sleeve that fits over the top of the pipe.
  - Others have a sleeve and separate cap that fits over the pipe.
- Once the flange is in place and sealed, the shingling is continued so that at least half, and in some cases almost all of the horizontal section of the flashing flange, is covered with roofing materials.
- The shingles (if asphalt) that are on top of the flange are often set in a continuous layer of asphalt cement.
- Some roofing authorities recommend that nails not be driven through the flange.



Adverse conditions to watch for on these flashings include:

1. rust
2. damage
3. vertically misaligned
4. installation problems

In all of these conditions, the implication is the possibility of leakage.

RUST

Rusted flashings are caused by:

1. age
2. failure to maintain/paint
3. incompatible materials, or
4. tar over the flashings

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DAMAGE

Damaged flashings may be caused by:

1. snow and ice accumulation on the roof
2. animal activity
3. foot traffic
4. careless roof work nearby
5. replacement of a pipe or stack without replacing the flashing, or
6. deterioration of the flashing due to age

Stack flashing and shingles damaged by vermin

Roofing cement was used as the flashing material - a very poor approach

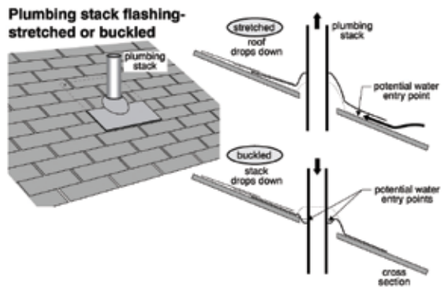
VERTICALLY MISALIGNED

CAUSES

Vertical misalignment of the flashing is usually a result of movement between the plumbing stack and roof deck. This movement can occur either up or down. If the roof deck moves relative to the plumbing stack (when loaded with snow, for example), the flange will be pulled up off the roof. If the pipe or stack drops relative to the roof deck, the appropriate slope of the flange may be lost and a recessed low area may be created around the pipe.

IMPLICATION

Again, leakage is the implication.



STRATEGY

When looking at pipes or stacks, make sure that –

- There is a flashing flange in place.
- The connection around the pipe or stack is weather tight.
- No more than the lower half of the flange is exposed.
- The bottom edge of the flange directs water out onto the surface of the roof below.
- Exposed nails at the lower corners of the flange are sealed.
- There is no evidence of lifting of the flange relative to the roof deck, or shrinkage of the pipe and buckling of the flange, relative to the roof deck.

The flashing boot is recessed and will hold water.

INSTALLATION PROBLEMS

These include –

1. missing flashing
2. improper flashing material (e.g., asphalt cement on asphalt shingles, or rubber flashing flanges on curved concrete tiles)
3. top half of flange exposed above roofing material, or bottom edge of flange concealed below roofing material
4. flashing located in a valley
5. exposed fasteners not sealed
6. missing fasteners

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A poorly installed flashing may leak and will reduce its life expectancy.

Missing Flashing

Improper installation - flange is on top of the shingles.

STRATEGY

Watch for what isn't there but should be. Missing components are a very common flashing problem. Most of the installation problems we've listed can be readily seen, if you remember to check for them.

Alan Carson, Carson Dunlop, www.carsondunlop.com, Carson Dunlop - Consulting engineering firm devoted to home inspection since 1978. www.carsondunlop.com, CREIA Educational Affiliate.
Special thanks to Roger Hankey and Kevin O'Hornett for their valuable input to this article, including some of the photos.

$300,000 LAWSUIT:
PIERCING CORPORATE VEIL

BY ISAAC PECK, EDITOR, WORKING RE ONLINE

In what may be one of the largest public judgments against a home inspector in recent years, a $300,000 jury verdict in the case of Mellem vs. Standard Home Inspections, Inc. et al. is a sobering look at what is at stake when an inspection is performed poorly and how little liability protection incorporating actually affords (Montana Fourth District Court, Cause No. DV-14-257).

The suit names Standard Home Inspections, Inc. (SHI—name changed for privacy reasons), a corporate entity, and the entity's founder, president, and sole home inspector, Tom Smith (name changed for privacy reasons). In what quickly became an exercise in "piercing the corporate veil," this case provides a stark warning for inspectors who believe that incorporating is a foolproof way to limit their personal liability and protect their personal assets.

The Mellems hired SHI, owned and operated by Smith, to perform a professional home inspection before they finalized the purchase of their home in August 2013. After purchasing the property, the Mellems discovered a number of defects in the property that were not disclosed in the home inspection report. The suit, filed by C.J. Johnson from the law firm Kalkstein, Johnson, and Dye P.C., alleges that Smith failed to identify grading and drainage defects, structural defects in basement framing and supports, evidence of long-term moisture problems in the basement, residual mold in the basement and attic, and defects in the siding and gutters.

STRUCTURAL PROBLEMS

After gathering evidence, the plaintiffs focused much of their attack on the fact that Smith failed to note significant structural problems in the basement, including a missing king jack stud, missing structural headers, and large holes through joists, and more.

The deposition of inspector Smith is revealing in regards to the alleged errors and omissions made about the property's structural problems. In his deposition, Smith admits that he entered the downstairs bathroom and did not even look up at the ceiling. This caused him to miss, among other things, several openly exposed and readily-visible joists which were broken, had rectangular cuts and holes or were missing altogether.

Smith ultimately claimed that he had no memory of seeing the structural problems during his inspection, causing the Mellems to argue that he "exercised no care" and "effectively skipped" this portion of his inspection while falsely marking the framing "acceptable" in his report.

WATER DAMAGE

In addition to failing to mention any structural damage, the Mellems argued

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that Smith failed to report "extensive and significant evidence" of outside water intrusion and water damage in the basement, including efflorescence, also known as salt staining, rusted foundation wall metal, rust weep down the basement walls and stained and rotted wood.

The deposition of the inspector regarding the water damage is also quite surprising. In his testimony, Smith admits to observing rusty metal in the foundation, rusty snap ties and a trail of rust "weeping downwards toward the floor," but confesses that he did not take any pictures of these conditions or mention them in his report. Despite significant and readily visible evidence of moisture and water intrusion, including wood rot, he failed to call out the defects.

The plaintiffs ultimately used Smith's testimony to argue that the inspector had left large areas uninspected and had effectively "admitted negligence" with regards to the structural problems and the evidence of water intrusion and damage.

CORPORATE VEIL

Smith's attorneys initially argued that much of what Smith was being sued for was outside of the scope of the home inspection, but as the case progressed they began to lean heavily on the argument that as a corporate officer, Smith should not be liable for the contract breach of SHI, the corporate entity, and consequently was not accountable for the alleged mistakes. Corporate officers and agents are shielded from personal liability "for acts taken on behalf of the corporation in furtherance of corporate goals, policies and business interests," his lawyers argued.

The lead attorney representing the plaintiffs argued that this rule does not apply in this case because "the exception to this policy is where the officer personally committed a tort: a wrongful act or an infringement of a right (other than under contract) leading to civil legal liability." In other words, the corporate protection does not shield corporate officer Smith from personal responsibility because he himself made the error and/or omission.

The plaintiff's attorney cites a number of different legal cases to support the finding that Smith should be held personally liable for his negligence: "It is well settled that an individual member of a limited liability company or an office of a corporation may be individual liable for his or her own torts, including negligence." (*Wilson v. McLeod*., 327 N.C. 491)

"A corporate agent cannot shield himself from personal liability for a tort he personally commits or participates in by hiding behind the corporate entity; if he is shown to have been acting for the corporation, the corporation also may be held liable, but the individual is not thereby relieved of his own responsibility." (*Sturm v. Harb Dev.*, LLC, 2 A.3d 859)

In other words, if an agent of a corporation or an LLC commits a tort, they can be held individually liable. A tort is defined by the Cornell University Law School as "an act or omission that gives rise to injury or harm to another and amounts to a civil wrong for which courts impose liability." There are a number of different kinds of torts, and to the extent that a lawyer can prove that a corporate officer committed a tort, personal liability exists.

In this case, the plaintiff's lead attorney argued that Smith should be personally liable because his actions were negligent and against the best interests of the corporation. Under Montana law, where the inspection was conducted, if an officer of a corporation "acts against the best interests of the corporation, for his own pecuniary benefit, or with the interest to harm the plaintiff, he/she is personally liable."

FINDINGS

The jury ultimately did find that SHI and Smith were negligent, and Smith conducted his home inspection in a manner that was "against the best interests" of his corporation, SHI. Smith was consequently held liable as an individual, with a jury finding that his poor home inspection performance constituted "unfair or deceptive acts or practices" which violated the *Montana Home Inspection Trade Practices Act* and the *Montana Consumer Protection Act*.

Under Montana law the judge has the option of increasing the award by triple and awarding attorneys' fees for any verdict that is a violation of the state's *Consumer Protection Act*. The Mellems were awarded $300,000 in damages and attorney's fees. The case was thereafter settled confidentially, but if the court had ultimately issued a ruling on the verdict, this amount could have been tripled to $900,000, plus attorney's fees.

LLC OR CORPORATION: HOW MUCH PROTECTION IS THERE?

The case of SHI and Tom Smith is a compelling example of how the "corporate veil" can be pierced but it does not mean that corporate forms of organization are categorically useless for home inspectors. Indeed, the degree of negligence involved directly relates to how easy it is for opposing counsel to "pierce the veil" in the manner described in this case. In other words, if the inspector is grossly negligent and it is readily apparent to a jury that obvious defects in a property were missed, it is much easier to prove that the inspector should be personally liable. And it can be asserted that he/she acted against the best interests of the corporate entity. If the claim of negligence is not as clear cut, the plaintiff's attorneys will have a much harder time proving personal liability.

Additionally, home inspector attorney Joseph Denneler explains that state licensing laws also play an important role in whether an inspector can be held personally liable. "Generally, inspectors in licensed states are individually liable for their actions regardless of whether they operate under a corporate entity. They are individually responsible for inspecting to their state's standards of practice. That is

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why E&O insurance is so critical. There is no way to hide personal assets except that in many states there is a homestead exemption and/or an exemption for all marital property."

E&O insurance is really the only way to protect your assets, says David Brauner, Senior Broker at OREP. "I have been in this exact position. When I was forming OREP I asked everyone I could find for advice—my CPA, my attorney and my mentor at the Small Business Administration whether I should incorporate to protect the few assets I had at the time—namely my house. To a person, they all said incorporating may have other benefits but for liability protection, E&O is the best protection. That, and being careful," Brauner said.

The state-specific nature of these legal arguments means that home inspector licensing laws (or their absence), usually have a central role in the proceedings. In the New Jersey case of *Kinoian v. Independent Home Inspection Service, Inc.*, homebuyers sued their home inspection company after discovering asbestos in their home a year after the purchase. The home inspection was performed in 1993. The appeals process dragged on until 2004. At that time, a New Jersey Appellate Court rejected the plaintiff's attempt to hold the individual home inspector liable, in part, because the inspection was prior to state licensing laws taking effect, ruling that the inspector "did not violate any duties specifically imposed by law."

The Appellate Court addressed the common comparison between home inspectors and doctors, lawyers, and other licensed professionals this way: "So too, certain professionals, such as doctors, lawyers, and accountants have been found liable under both tort and contract theories for economic losses causes by misrepresentations during contractual relationships. Such liability, however, has not been broadly extended to other classes of service providers and is apparently premised upon duties specifically imposed by law (emphasis added). We find no basis on the present record to now include home inspectors within the class of those subject to that wider liability."

In other words, because home inspector licensing designates specific duties and responsibilities to individuals who practice as home inspection professionals, licensing also potentially subjects inspectors to increased liability because, similar to doctors, lawyers or accountants, licensed inspectors have "duties specifically imposed by law" which they are bound to as individuals. Just as a doctor working for a corporation might be held individual liable for violating his standards of practice, inspectors in licensing states are also bound by law and can be found liable under tort and contract theories if found to be Working RE Inspector Summer 2017 9 grossly negligent or acting in violation. It's important to note that in Montana, the state where this suit occurred, there is no home inspector licensing program. However, Montana has passed the *Montana Home Inspection Trade Practices Act*, which outlines the duties and responsibilities of a home inspector.

LIABILITY BOTTOM LINE

Despite the arguments against the effectiveness of incorporating for home inspectors, some experienced attorneys point out that there is little downside to forming a corporation. Doing business through a corporation has likely never made a home inspector more liable, they argue, and in some cases has successfully protected the inspector as an individual. So despite its less than ironclad protection, inspectors arguably are at least more protected when doing business in a corporate form. But incorporating may be more costly depending on your state. It's best to ask your accountant.

Todd Stevens, veteran home inspector trial lawyer and past President of the San Diego Bar Association, says that while not effective in every case, a corporate form can still be useful. "Corporate formation is an additional layer of protection for inspectors. You certainly aren't going to be scot-free just because you incorporate but it is another layer of protection that I would never discourage anyone from doing. It's especially useful if you've got a bigger operation with lots of employees and independent contractors working for you. There are advantages and disadvantages that vary by state in terms of taxes, so I'd definitely recommend speaking to an accountant and a lawyer to decide which form is best for you, but as a method of limiting your liability, it can't hurt," says Stevens.

OTHER CONSIDERATIONS

The issues explored here, admittedly, are not the only issues that come into play when a plaintiff attempts to "pierce the corporate veil" in a home-inspector related lawsuit. Lawyers frequently attempt to prove that an inspector's corporation is a "sham" corporation, and there is no real difference between the inspector and the corporate entity.

For this reason, home inspectors utilizing a corporate form are advised to observe the required corporate formalities, such as issuing stock, holding shareholder and board of directors meetings, keeping adequate minutes for meetings, and keeping separate financial records and separate bank accounts—ensuring clear financial boundaries between the individual and the corporation. The complexity of these issues is beyond the scope of this story, but inspectors interested in limiting their liability through a corporate structure should research them accordingly and seek professional legal advice. Stay safe out there!

Isaac Peck is the Editor of Working RE magazine and the Director of Marketing at OREP, a leading provider of E&O insurance for home inspectors, appraisers, and other real estate professionals in all 50 states and D.C. He received his master's degree in accounting at San Diego State University. He can be contacted at isaac@orep.org or (888) 347-5273.

http://orep.org/home-inspectors-eo-insurance/

http://www.inspectoradvisor.com

Window Glazing

BY ALAN CARSON

FUNCTION OF WINDOWS

Windows allow light and ventilation into the home, and can provide emergency exits (means of egress). Although we are not required to perform code inspections, research into your local building code can provide you with these requirements. Windows can also add to the architectural appeal of the home. The topic of windows is very extensive, and we will limit our discussion here to the glazing portion of the window system. We will conclude our discussion with some of the conditions found with glazing and the process of inspection.

MATERIALS

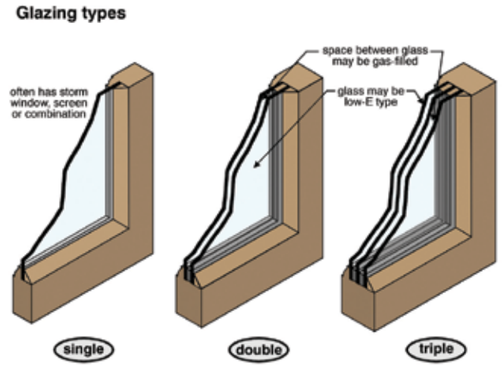
Window frames and sashes may be made of wood, vinyl (often polyvinyl chloride), metal (steel or aluminum) or fiberglass. Wood windows may also be vinyl-clad or metal-clad.

GLAZING MATERIALS

Conventional glass is the most common, although laminated, tempered and wired-glass may be found. Acrylic is common in skylights. Polycarbonates are used in windows where great strength and security are important.

GLAZING TYPES

Windows may be single-, double- or triple-glazed. Single-glazed windows may have storm windows and screens. Double- and triple-glazed windows and skylights may have additional energy efficiency features, such as low-E glass and gas-filled spaces.



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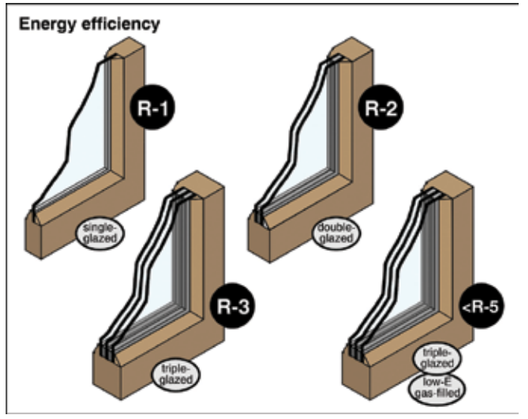
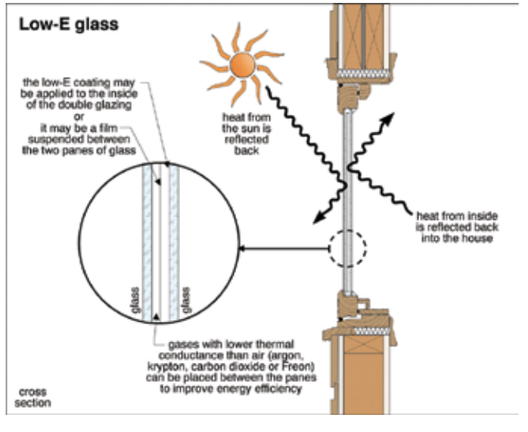
ENERGY EFFICIENCY

Considerable attention has been paid to the energy efficiency of windows in recent years. Let's put things in perspective. Current standards for wall insulation often call for R-values of approximately 20. A single-glazed window has an R-value of roughly 1. A double-glazed window has an R-value of roughly 2, and a triple-glazed window has an R-value of roughly 3. Even with the highest energy improvement tricks, R-values of windows do not approach 5. Let's look at some of the ways that window efficiency is improved.



LOW-E GLASS

Low-E glass uses coatings that reduce the emissivity of windows. The emissivity of a material describes its ability to radiate heat. A heat exchanger and conventional glass have high emissivity. Aluminum foil has low emissivity. Radiant barriers also have low emissivity.



REDUCED HEAT FLOW

These low-E coatings reduce heat transfer through the window and reflect the heat. In winter, the heat is moving out of the house; the low-E glass reflects some of the heat back into the home. In the summer, the heat typically moves through the window from the outdoors in; the low-E reflects a good deal of this solar heat back outside, helping with the cooling.

METALLIC COATING

The coatings are typically metallic and can be applied a couple of ways. The coating is usually on the inside of double glazing, so it isn't exposed to the air or elements. Low-E glass can also use a film suspended between the two panes of glass, effectively creating a triple-glazed system.

BLOCKS ULTRAVIOLET

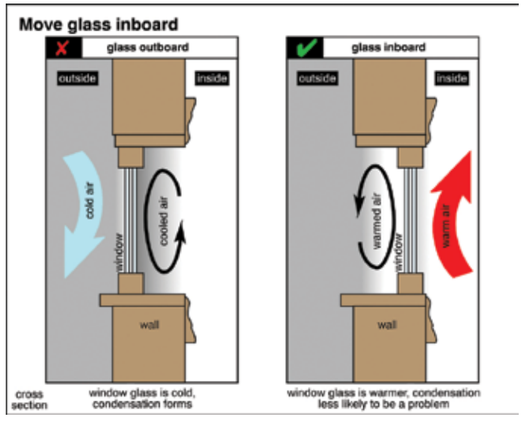
Low-E glass has slightly less light transmission than traditional glass, although it's not usually noticeable. Low-E glass also helps screen out ultraviolet light, resulting in less fading of draperies and furniture, for example.

GAS-FILLED WINDOWS

Conventional windows have air in the space between the glazing layers. Higher efficiency windows use heavy gases, such as argon, krypton, carbon dioxide or Freon®, for example, to improve performance. These gases have lower thermal conductance than air. These windows are tricky to manufacture because it's hard to keep air out of the space between the glazing. Very good seals are needed around the perimeter to keep the gases in and the air out.

INSPECTION IMPLICATIONS

You won't usually know by looking whether the glass is low-E and whether the windows are gas-filled. It's not really a big issue for home inspectors, since conventional glass is not a deficiency. This is an upgrade that helps reduce heating costs, but is not a huge issue.



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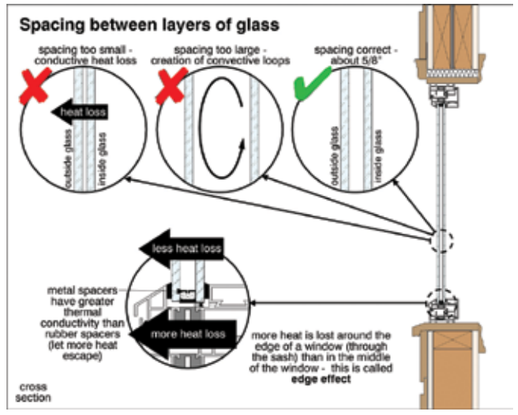
MOVE GLASS INBOARD

Glass is better closer to the inner surface of a wall system than the outer surface. The glass stays warmer and condensation is reduced. Many windows have the glass substantially outboard.

SPACING BETWEEN LAYERS OF GLASS

If the air space between panes of glass is too small, there will be conductive heat loss through the window, and the advantage of double-glazing will be substantially reduced. If the air space is too large, convective loops will be set up and, again, the advantage of double-glazing will be lost. The optimum air space appears to be about five-eighths of an inch. Common gaps are roughly one-half inch, which is close to the optimum spacing.



Let's now have a look at some common conditions with window glazing. The glass may:

- Be cracked
- Be broken
- Be loose
- Be missing
- Have a lost seal
- Have excess condensation

CAUSES

These window problems are usually maintenance related. Lost seals may be the result of a manufacturing defect. Excess condensation on windows is usually a lifestyle and air quality issue.

IMPLICATIONS

Cracked, broken, loose or missing glass can be both a heat loss and heat gain problem, and can be a risk of injury. If the glass is loose, it often rattles whenever someone walks through a room. People may be cut on broken glass.

LOST SEALS

Condensation between the panes the inner and outer panes of glass is typically an indicator of a lost seal. Lost seals are not particularly serious from an energy efficiency standpoint. The window will still perform reasonably well. However, visibility is often reduced, and the glass may look cloudy, even if there's no condensation present at the moment. Once the seal is gone, condensation will appear and disappear between the panes, depending on the climate. This, however, leaves the interior surfaces of the glazing dirty, and the cloudy appearance develops.

EXCESS CONDENSATION

Excess condensation will usually only occur during cold weather. It is the result of high humidity levels in the house. Eliminating moisture sources and using exhaust fans are obvious steps to control indoor moisture levels.

Alan Carson, Carson Dunlop - Consulting engineering firm devoted to home inspection since 1978. www.carsondunlop.com, CREIA Educational Affiliate.

SOCIAL MEDIA:
WHY IT MATTERS

BY JENNIFER BAKER, CREIA ASSISTANT EXECUTIVE DIRECTOR

In our tech world, the public has the ability to choose where they get their news and information. Social Media has the ability to connect your home inspection business to the 81 percent of Americans who have and utilize social media. This means Realtors, Home Buyers, Home Sellers, other Home Inspectors, and the rest of the general population can have greater access to your business if you utilize social media.

Social media need not be intimidating! Create a Twitter (twitter.com); Instagram (phone only—by downloading the app), or Facebook (facebook.com). To create an account, you will need an email address and enter basic information about yourself. Then "follow," "friend," and "like" CREIA on the social media platforms. Start posting on your accounts and/or "share" what CREIA posts.

EXAMPLE SOCIAL MEDIA POSTS YOU CAN DO:

- Be creative and speak about your product(s) or service(s)
- Advertise your business
- Highlight your CREIA Certification
- Offer discounts on inspections to your followers
- Share home safety tips
- Offer home improvement ideas/ Do-it-yourself tips
- Share photos of your inspections to help the public further understand what home inspectors can do
- Share CREIA events you are attending to show continued education
- Send messages to the public to address common home inspection questions

To get inspiration, take a look at CREIA's social media platforms! Our goal is to promote the CREIA brand and CREIA certified inspectors to the public, and to display various educational opportunities CREIA offers.

CREIA highlights CREIA certified home inspectors and affiliate members, toolbox opportunities, other CREIA events, news of interest, conference presenters, and more! If you would like to help in this effort, here's what you can do:

1. Pictures, please! Instagram is picture-centered. We could feature pictures of something wrong with residential/commercial properties and comment about CREIA inspectors; when to call a home inspector; etc.
2. Twitter messages are great in sending quick messages to followers (more and more realtors, builders, etc. are following CREIA on Instagram every day since it began last Wednesday)! Some ideas of content wanted:
   - what should and shouldn't be inspected;
   - why/when to call a CREIA home inspector;
   - why/when to call in a specialist - from CREIA affiliates and members with specialties;
   - advice regarding how to do it yourself;
   - "did you know" pieces.
3. The same can be done for the public Facebook page. (Please note this is a public Facebook page and posts should be geared to the public here; there is a closed FB page for members - more on this later). Check out ASHI's latest tweets for other ideas.
4. Articles & Links & Participation. LinkedIn and Google + are business platforms and are geared to home inspectors as well as Realtors, homebuyers, home sellers, and others.

ONCE AGAIN, BE SURE TO FRIEND, FOLLOW, AND LIKE CREIA ON CREIA'S SOCIAL MEDIA PLATFORMS!

www.instagram.com/creiahomeinspectors/

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www.linkedin.com/groups/4546085/profile

/twitter.com/creiainspectors

ANNOUNCEMENTS

THE CALIFORNIA COALITION OF HOME INSPECTORS

Due to the heavy legislative season and the likelihood of the same continuing, the California Coalition of Home Inspectors (CCHI) has been resurrected. The purpose of the CCHI is to build consensus among home inspectors in California with regard to legislation.

Funds raised in donations to the CCHI (checks are payable to CREIA and will be posted to the CCHI line item) will go towards the costs of lobbying, fighting legislation, introducing legislation, reimbursement of expenses, etc.

CREIA will promote the CCHI and encourage direct donations, 50/50 opportunity drawings, and other fund raising activities to CREIA Chapters (a few have already voted and pledged to donate), ASHI Chapters, and other inspector groups in California. There will also be a "donate to CCHI" presence on the CREIA homepage where individual CREIA and ASHI members and other home inspectors may donate online.

CREIA CERTIFIED SIMPLIFIED SEISMIC ASSESSOR PROGRAM

The CREIA SSA Certification was created to establish and manage a certification program so that those certified can inspect raised foundation homes for compliance with FEMA retrofitting guidelines.

The basic requirement requires one to hold the CREIA CCI or MCI with the rationale that CREIA Certified Inspectors abide and uphold the *CREIA Code of Ethics* and the *CREIA Standards of Practice*.

There are two educational component requirements. The FEMA P-50, which has been held during the CREIA Annual Conference for several years, and will be held at the 2018 Conference on Sunday, April 29, 2018. The training will be free to CREIA members. There will also be an accompanying online component, which is under development at this time.

In-person and experiential components require two ride-a-longs with an SSA qualified trainer and two report reviews to be submitted to an SSA qualified trainer for approval. A list of SSA Qualified Trainers will be made available on the CREIA Website.

The final component is the examination, which is also under refinement.

Recertification is every three years, where in CREIA Certified SSA's will be required to:

- Take the P-50 online class; Rationale: the program will change over time, especially the first few years. Retaking the class helps keep people current. The test verifies that they are current.
- Group SSA Inspection annually; or other CREIA-approved education on topic.
- If a major program change occurs, additional training covering updates to maintain certification may be required.

We have soft-launched the program to get the pieces in place and hope to have the program fully rolled out by the second quarter in 2018.

FOR THE LATEST CREIA INFORMATION, VISIT OUR WEBSITE AT

WWW.CREIA.ORG

CREIA ADVERTISING POLICY: *CREIA INSPECTOR MAGAZINE*

GENERAL

Display advertising in the Inspector Journal shall comply with the criteria specified for display and classified advertising. CREIA is not responsible for any claims made in an advertisement. Advertisers may not, without prior consent, incorporate in a subsequent advertisement the fact that a product or service has been advertised in a CREIA publication. CREIA's acceptance of advertisements shall in no way imply a direct affiliation between CREIA and its advertisers. The appearance of advertising on any CREIA forum is neither a guarantee nor an endorsement by CREIA of the product, service, or company or the claims made for the product in such advertising. As a matter of policy, CREIA will sell advertising space to any advertiser when the content of the advertising does not interfere or directly conflict with the mission, policies, statements, objectives or interests of CREIA. CREIA, in its sole discretion, retains the right to decline any submitted advertisement or to discontinue posting of any advertisement previously accepted.

CIRCULATION

900+ (Members, subscribers, schools, libraries, prospective members). Printed twice yearly.

DISPLAY AD SUBMISSION

Display ads should be submitted as a high resolution (300 dpi or higher) TIF or JPG with fonts embedded in the file. Display ads must be exactly measured according to the listed ad sizes. To determine size correctly, measure ad from outside border to outside border. A compressed file can be sent to info@creia.org. Please call the CREIA office with any questions.

PAYMENT

Payment must accompany ads. Ads submitted without payment will not be printed. CREIA does not bill for advertisements in the Inspector Journal. Advertising rates are subject to change without notice. CREIA advertising is non-commissionable.

DEADLINE

The advertising deadline for the Spring edition is February 15. The advertising deadline for the Fall edition is October 1.

DISPLAY AD RATES – ALL LEVELS ARE SUBJECT TO AVAILABILITY.

Affiliates receive 25% off all a la carte selections with exception of covers. Premier Affiliates receive 50% off a la carte selections with exception of covers.

Size	Width x height	Rate
Inside Front Cover*	8.75"x11.25"	$950
Inside Back Cover*	8.75"x11.25"	$800
Full page with bleed*	8.75"x11.25"	$600
Full page w/o bleed	8"x10.5" $600	
Half page horizontal with bleed*	8.75"x5.75"	$380
Half page horizontal w/o bleed	8"x5"	$380
Half page vertical with bleed*	4.5"x11.25"	$380
Half page vertical w/o bleed	3.75"x10.5"	$380
Quarter page (no bleed)	3.75"x5"	$250
Business Card (no bleed)	3.5"x2"	$200

*All ads with bleeds include .125" bleed on each side and should include a minimum of 3/8-inch safety area between the edge of the ad and any text. Full page ad print size is 8.5"x11". Half page horizontal ad print size is 8.5"x5.5". Half page vertical ad print size is 4.25"x11".

Attention Members: If you have editorial ideas or would like to submit an article for Inspector Journal, please do so at anytime to the CREIA office at info@creia.org.

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CREIA is a nonprofit education and credentialing organization to benefit consumers and professionals.

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CHAPTER CALENDAR 2017

For more information go to www.creia.org/state-chapters

DELTA CHAPTER
2nd Wednesday of each month 6:00 pm
CK Grill and Bar, 14725 Harlan Rd, Lathrop, CA 95330

GOLDEN GATE CHAPTER
1st Tuesday of each month 7 pm
Buttercup Grill & Bar
660 Ygnacio Valley Rd., Walnut Creek, CA 95496

GREATER SACRAMENTO CHAPTER
3rd Wednesday of the each month 6:00 pm
Sam's Hof Brau, 2500 Watt Ave., Sacramento, CA 95821

GREATER SAN GABRIEL VALLEY CHAPTER
2nd Tuesday of each month 5:00 pm
Zapata Vive, 101 S. 1st Ave., Arcadia, CA 91006

INLAND EMPIRE CHAPTER
3rd Wednesday of each month 7 pm
Carrows11669 E. Foothill Blvd., Rancho Cucamonga, CA 91730

KERN COUNTY CHAPTER
3rd Thursday of each month 6:00 pm
Casa Munoz Restaurant
Corner of E. 18th Street & Union Ave., Bakersfield, CA 93305

LA-MID VALLEY CHAPTER
1st Wednesday of each month 6:00 pm
Acapulco Restaurant
722 N. Pacific Avenue, Glendale, CA 91203

LA/VENTURA CHAPTER
1st Thursday of each month 6:00 pm
Knights of Columbus Hall #3601
21433 Strathern Street, Canoga Park, CA 91304

LA WEST/SOUTH BAY CHAPTER
3rd Wednesday of each month 5:00 pm
Hometown Buffet, 3520 W. Carson Street, Torrance, CA 90503

NORTH BAY CHAPTER
Last Wednesday of each month 6:30 pm
McIness Golf Center
350 Smith Ranch Road, San Rafael, CA 94903

NORTH SAN DIEGO/TEMECULA VALLEY CHAPTER
2nd Thursday of each month 5:30 pm
Castle Creek Golf Course
8797 Circle R Drive, Escondido, CA 92026

ORANGE COUNTY CHAPTER
3rd Monday of each month 5:30 pm (Jan/Feb are 4th Monday)
The Hometown Buffet
1008 East 17th Street, Santa Ana, CA 92704

PALM SPRINGS CHAPTER
3rd Thursday of each month 6:00 pm
CoCo's Diner, 78375 Varner Road, Palm Desert, CA 92211

SAN DIEGO CHAPTER
1st Tuesday of each month 5:15:00 pm
Elijah's Restaurant
7061 Clairemont Mesa Blvd., Suite 210, San Diego CA 92111

SAN FRANCISCO PENINSULA CHAPTER
4th Tuesday of each month 5:45:00 pm
Mimi's Cafe, Bridgepoint Shopping Center
2208 Bridgepoint Pkwy., San Mateo, CA 94404

SAN JOAQUIN VALLEY CHAPTER
3rd Wednesday of each month 7 pm
Yosemite Falls Café, 5123 N. Blackstone Ave, Fresno, CA 93710

SAN LUIS OBISPO CHAPTER
3rd Tuesday of each month 6:00 pm
Margie's Diner, 1575 Calle Joaquin, San Luis Obispo, CA 93405

SHASTA/CASCADE CHAPTER
1st Tuesday of each month 5:00 pm
Sailing Board Restaurant
2772 Churn Creek Rd., Redding, CA 96002

SILICON VALLEY CHAPTER
2nd Wednesday of each month 5:00 pm
Blue Pheasant Restaurant
22100 Stevens Creek Blvd., Cupertino, CA 95014

TRI-COUNTIES CHAPTER
2nd Thursday of each month 6:00 pm
Alamo Bar & Grill
2311 Borchard Rd, Newbury Park, CA 91320