THE INSPECTORS' JOURNAL

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Rock and Slag Wool Insulation

Sustainable Choices for Conserving Energy and Preserving the Environment

Rock and slag insulations, sometimes referred to as mineral wool, have been produced naturally for centuries. During volcanic eruptions, when a strong wind passes over a stream of molten lava, the lava is blown into fine silky threads that look like wool. From this natural inspiration sprung one of the most innovative and versatile insulation products on the market today.
Today's rock and slag wool insulations are high-tech versions of their predecessors, produced from plentiful basalt and industrial slag.

Their versatility allows them to be used in a wide variety of residential, commercial and industrial applications to provide sustainable thermal and acoustical comfort and, perhaps most uniquely, to serve as passive fire protection.

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Residential Insulation

Industrial Pipe Insulation

Commercial and Industrial Insulation

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Benefits

Rock and slag wool insulation offers a wide array of benefits for specifiers, designers and builders interested in using materials offering environmentally responsible characteristics and demonstrating proven performance.

Outstanding Thermal Performance

Thermal performance is a critical determinant in choosing an insulation product and the product must be thoroughly tested and proven to perform at the same level as when installed for the life of the building. Rock and slag wool insulation is tested to all applicable industry standards to ensure its R-value does not deteriorate over time. Loose-fill rock and slag wool insulation resists settling1, and batt products spring back after average compression so that installed thermal performance is maintained over the life of the product. The insulation also lends to the sustainable nature of the structure by protecting the building from moisture2 and fire damage3. Further, the higher density of rock and slag wool insulation allows it to achieve higher R-values in a typical wall cavity than most other insulation products.

Excellent Fire Resistance

The performance of building materials in a fire is a key factor in protecting the occupants of the building and allowing them to escape safely. Rock and slag wool insulation is naturally non-combustible and remains so for the life of the product without the addition of harsh and potentially dangerous chemical fire retardants4. The insulation can resist temperatures in excess of 2,000°F5. Because these products have a high melting temperature, they can be used in a wide variety of applications that call for these unique properties. These products meet NFPA 220 and ASTM E 136 standards and test methods and are Class A product tested per ASTM E 84 and NFPA 101. Rock and slag wool insulation is used as passive fire protection in many buildings. Manufacturers of these products encourage a balanced design, which includes a combination of active, detective and passive fire protection in building codes to ensure the safety of building occupants.

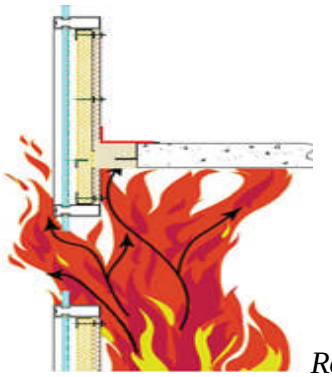
Excellent Sound Absorption

The fibrous structure and high density of rock and slag wool insulation offer excellent sound absorption properties6, making these products an outstanding part of overall wall systems designed to reduce sound transmission.

Mold, Fungi and Bacteria Resistant

Rock and slag wool insulation resists the growth of mold, fungi and bacteria because it is inorganic7. These products offer enhanced protection against damaging moisture infiltration that can rob insulation of R-value2.

rock and slag wool



Rock and slag wool are used as passive fire protection in many buildings

3

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6. Mason Wyatt, Noise Control, Understanding Noise Control, Sound Absorbing Materials at www.noisecontrol.net/materials.html.
7. NAIMA Insulation Facts #34.

Composition

Rock wool and slag wool insulation is comprised of basically the same raw materials but in different proportions and is produced in the same way. Manufacturers use a mechanized process to spin a molten composition of rock and slag into high temperature-resistant fibers. Their similar properties also produce fairly similar performance attributes. The major difference is in the specific volumes of the various raw materials used to make each product.

Rock Wool Insulation

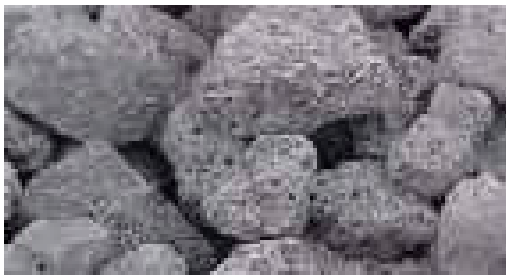
Rock wool insulation is composed principally of fibers manufactured from a combination of aluminosilicate rock (usually basalt), blast furnace slag and limestone or dolomite. Slag is a byproduct from steel production that would otherwise wind up in landfills. Binders may or may not be used, depending on the product. Typically, rock wool insulation is comprised of a minimum of 70 - 75 percent natural rock. The remaining volume of raw material is blast furnace slag.

Slag Wool Insulation

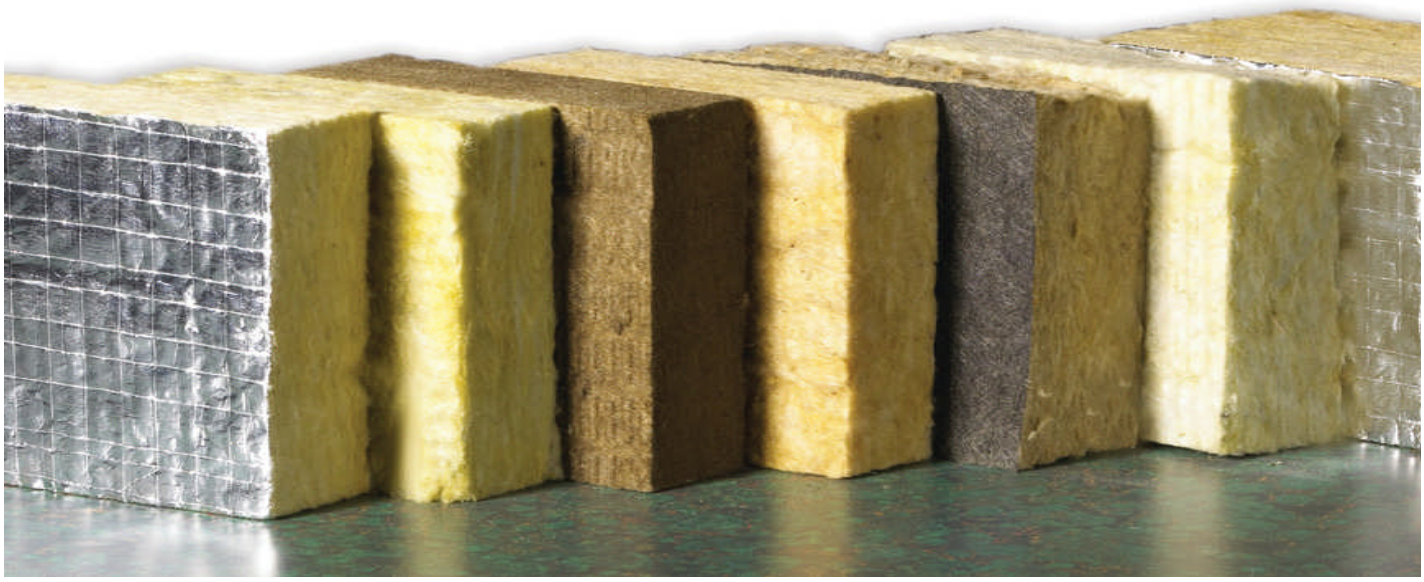
Slag wool insulation is composed principally of fibers manufactured by melting the primary component, blast furnace slag, with a combination of some natural rock, with or without binders, depending on the product. Typically, slag wool

insulation uses approximately 70 percent blast furnace slag, with the remaining volume of raw materials being natural rock.

Rock



Slag



Conserving Energy Preserving the Environment

One of the most important environmental benefits of rock wool and slag wool insulation is their ability to make buildings more energy efficient. A thermally efficient building reduces the amount of energy required to maintain a comfortable indoor environment. A reduction in energy consumption conserves non-renewable fuel supplies and reduces air pollution and greenhouse gas emissions such as CO2 and NOx. According to a Harvard University School of Public Health study, this reduction in emissions as a result of energy efficiency through the use of thermal insulation greatly improves public health and saves lives8.

Wise Resource Use

Slag wool is made from blast furnace slag, a byproduct of steel production and a waste product. The industry estimates that over 90 percent of the slag used for insulation is purchased directly from steel manufacturers. The remaining 10 percent is mined from waste disposal sites and landfills. Between 1992 and 2005, slag wool insulation manufacturers used over 13 billion pounds of waste blast furnace slag in the production of insulation[9]. Both rock and slag wool insulations use natural rock such as basalt in the manufacture of the products. This material is available near to the rock and slag wool insulation plants in North America. By mixing waste materials with raw materials that are found abundantly and widely in nature, rock and slag wool insulation manufacturers report that they are able to use less energy during production than by using strictly the natural rock.

Re-Engineering Manufacturing Processes

Many insulation manufacturers are reducing process waste by instituting conservation measures. These measures include re-engineering manufacturing processes to incorporate production scrap back into the primary production process, or reprocessing it into other products. Technology, engineering and process control have played key roles in developing a cleaner, stronger, and easier-to-handle product over the last 20 years. Most mineral wool plants operate with a closed loop system; thus, there are no wastewater discharges. Mineral wool manufacturing plants also operate under a Maximum Achievable Control Technology (MACT) standard to reduce and limit air emissions.

Green Rating Systems

Green and sustainable building programs are beginning to drive the choice of materials used in buildings. One method, used by the US Green Building Council (USGBC) to promote green and sustainable buildings, is a rating system called Leadership in Energy and Environmental Design (LEED™). LEED allocates points to a building that meets specific targets, and specific point levels determine the building's LEED rating. Rock and slag wool products can help green building developers earn points toward a LEED rating, especially in the area of materials and resources where credits are earned for recycled content and regional material content. In using these point-based systems, however, it is easy to forget that the core purposes of insulation are to conserve energy and improve comfort, which are key pillars of sustainable construction. Therefore, all insulation is technically green. What matters more than just points in selecting an insulation material is its suitability for the project based on a number of environmental criteria and specification of proper levels of insulation for the application, which are typically beyond the minimum mandated by codes. Rock and slag wool insulations embody a number of characteristics that make them advantageous choices in green and sustainable building.

For every Btu consumed in the production of insulation, 12 Btu are saved each year. *According to a Harvard*

energy conserving

8. Jonathan I Levy, Yurika Nishioka and John D Spengler, "The Public Health Benefits of Insulation Retrofits in Existing Housing in the United States," Environmental Health: A Global Access Science Source, 2003, 2:4.

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Applications

The fibrous composition of rock and slag wool insulation provides a flexibility and versatility not found in most other insulations. Rock and slag wool insulation comes in a wide variety of forms, shapes and sizes, including board, batt, loose-fill, spray-applied and pipe insulation for many common and specialized applications..

Residential

- Thermal (walls and attics)
- Foundation Drainage Systems
- Acoustical (walls and ceilings

Commercial

- Thermal (walls and roofs)
- Fire Stopping and Containment
- Acoustical Ceiling Tiles
- Acoustical Applications

Industrial

- Thermal (ovens, boilers, kilns, etc.)
- Fire Stopping and Containment
- Acoustical (sound absorbers)
- Emissions Control
- Pipe/Mechanical Systems
- Fillers

Product Stewardship

NAIMA and its member companies are committed to ensuring that rock and slag wool products can be safely manufactured, installed and used. NAIMA member companies have funded tens of millions of dollars of research at leading independent laboratories and universities in the United States and abroad to investigate the possible human health effects of rock and slag wool. The weight of scientific research confirms that these materials are safe to manufacture, install and use when manufacturers' recommended work practices are followed. PUB. NO. N046 9/0

About NAIMA www.naima.org

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NAIMA is the association for North American manufacturers of fiber glass, rock wool, and slag wool insulation products. Its role is to promote energy efficiency and environmental preservation through the use of fiber glass, rock wool, and slag wool insulation, and to encourage the safe production and use of these materials.

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NEWS from CPSC

U.S. Consumer Product Safety Commission

Office of Information and Public Affairs — Washington, DC 20207

FOR IMMEDIATE RELEASE
May 13, 2009
Release #09-217

Firm's Recall Hotline: (888) 325-1184
CPSC Recall Hotline: (800) 638-2772
CPSC Media Contact: (301) 504-7908

Composite Decks Recalled by Louisiana-Pacific; Decks Can Deteriorate and Break, Posing Fall Hazard

WASHINGTON, D.C. - The U.S. Consumer Product Safety Commission, in cooperation with the firm named below, today announced a voluntary recall of the following consumer product. Consumers should stop using recalled products immediately unless otherwise instructed.

Name of Product: Composite Decks
Units: About 48 million linear feet (decks vary in size)
Manufacturer: Louisiana-Pacific (LP) Corp., of Nashville, Tenn.
Hazard: The recalled decking can prematurely deteriorate and unexpectedly break. Consumers can fall through broken decking and suffer serious injuries.
Incidents/Injuries: LP has received 37 reports of composite decks breaking, resulting in 14 injuries, including a broken wrist, sprained ankle, minor lacerations and bruises.
Description: The recall includes outdoor deck board and railings sold under the brand names LP WeatherBest®, ABTCo., and Veranda®. They are composite products that look similar to natural wood and were sold in various colors including Tuscan Walnut/Chestnut, Driftwood Grey/Greystone, Pacific Cedar and Western Redwood. Veranda decking products were manufactured by multiple firms; only products manufactured by LP are included in this recall.
Sold at: The Home Depot (Veranda® brand) and building product dealers (LP WeatherBest® and ABTCo. brands) nationwide from January 2005 to August 2008 for between $1.50 and $2.25 per linear foot.
Manufactured in: United States
Remedy: Consumers with the recalled decking should immediately contact LP for a free inspection. If the decking is affected by premature deterioration, LP will arrange for a free replacement.
Consumer Contact: For additional information, contact LP toll-free at (888) 325-1184 between 6 a.m. and 5 p.m. PT Monday through Friday, or visit the firm's Web site at **www.deckingnotice.com**

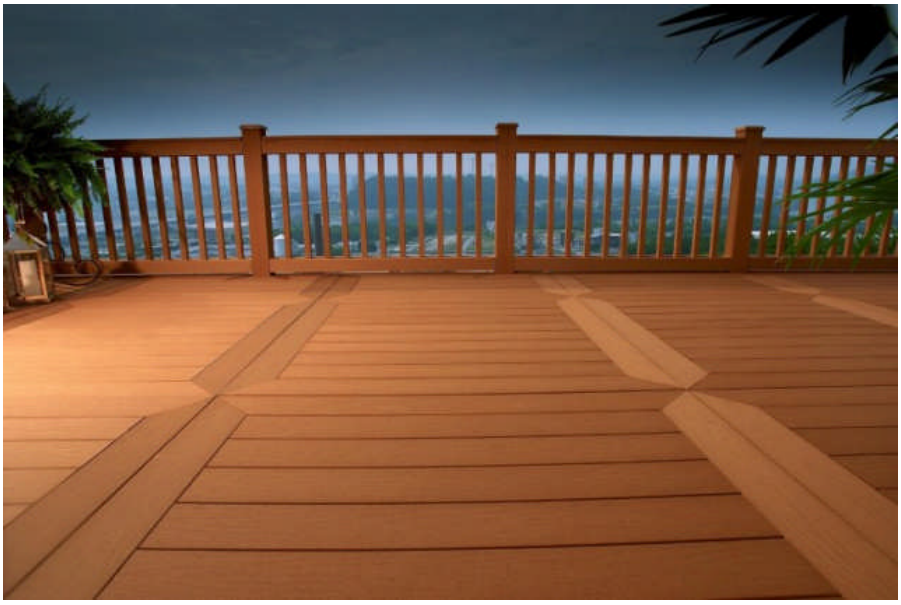

Photo of installed decking

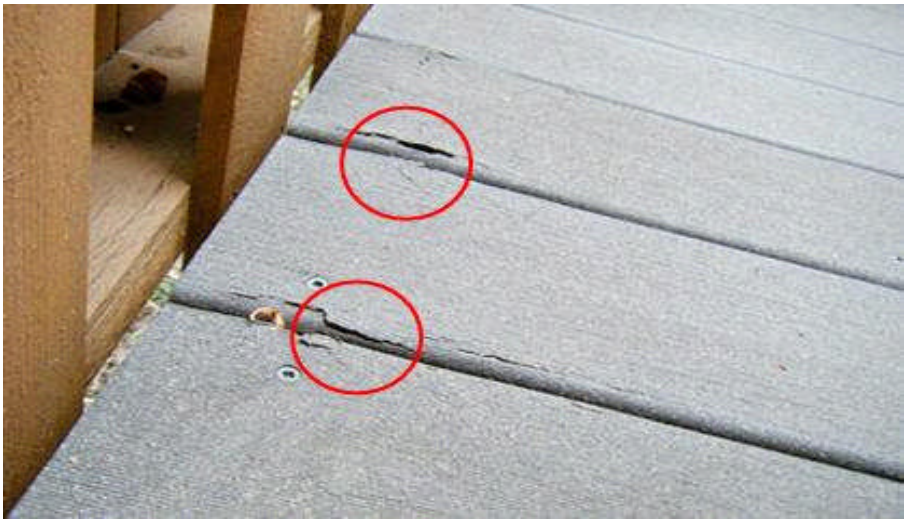

Photo indicating damaged decking

Tuscan Walnut/ Chestnut | Driftwood Grey/ Greystone | Pacific Cedar | Western Redwood

CPSC is still interested in receiving incident or injury reports that are either directly related to this product recall or involve a different hazard with the same product. Please tell us about it by visiting **https://www.cpsc.gov/cgibin/incident.aspx**

EPA Offers Tips to Save Energy and Fight Climate Change this Summer

Contact: Enesta Jones, 202-564-4355 / 7873 / jones.enesta@epa.gov

(Washington, D.C. – May 12, 2009) With summer and the high costs of cooling right around the corner, EPA is offering advice to help Americans reduce both energy bills and greenhouse gas emissions by one third through Energy Star. The energy used in an average home costs more than $2,200 a year and contributes more greenhouse gas emissions than a typical car.

"A few simple changes will help create real reductions in high summer electric bills and provide a hefty cut in greenhouse gas emissions in the bargain," said EPA Administrator Lisa P. Jackson. "It's important that we all do our part to confront climate change, especially when it can help save money during these challenging economic times."

Here are some tips to save energy and help protect the environment at home and at work:

- Set your programmable thermostat to save while you are away or asleep. Using it properly can save up to $180 per year in energy costs.
- Run ceiling fans in a clockwise direction to create a wind-chill effect that will make you "feel" cooler. Remember that ceiling fans cool people, not rooms -- so turn them off when you leave the room.
- Inspect your duct system for obvious signs of leaks and disconnections (most houses leak 20 percent or more). Seal any leaks with foil tape or a special sealant called "duct mastic." Also consider insulating ducts in unconditioned areas (like the attic, basement or crawlspace).
- Seal air leaks around your home to keep the heat out and the cool air in. The biggest air leaks are usually found in the attic or basement, but also come in around doors, windows, vents, pipes and electrical outlets. Use caulk, spray foam or weather stripping to seal the leaks. And add more insulation to keep your home cooler this summer.
- Maintain your cooling system. Check your system's air filter every month at a minimum and change the filter every 3 months. Remove leaves, dirt and other debris from around the outdoor components to improve air flow and efficiency. Have a qualified professional tune-up your system with a pre-season maintenance checkup and, if it's time to replace your old system, look for models that have earned EPA's Energy Star.
- Turn off office lights and equipment when not in use so they don't generate unnecessary heat.
- Replace incandescent light bulbs in your desk lamp with Energy Star qualified compact fluorescent light bulbs which use two-thirds less energy and generate less heat than conventional bulbs.

Detecting Termites with Infrared Thermal Imaging

By Mark Rentoul, Prime Building & Pest Consultants Pty Ltd

Prime Building and Pest Consultants' (PBC's) core business is pre-purchase inspections for homebuyers. The pest inspections are for subterranean termites, rot, and other pests that damage a home's timber structure. Most Australian homes are inspected prior to purchase and the inspections must conform to stringent Australian standards.

Termite infestations create irregular heat patterns detectable by a TermiteScanIR®, a type of infrared thermography (IRT) system. Termites produce thermal energy in the form of carbon dioxide, which is a byproduct of digestion. In fact, termites produce more carbon dioxide per weight than any other living organism. When termites move into a structure to set-up a home they actually change the thermal energy level in two ways:

- Heat is released from their digestive systems in the form of carbon dioxide, which raises the temperature.
- The mud tubes they construct have high moisture content, which can result in cooling and lower temperatures.

These changes in energy levels produce thermal anomalies that come to the surface of walls, ceilings, floors, and concealed areas of a structure, thus creating irregular heat patterns. The situations in this article show how IRT is an ideal tool to detect these irregularities and the termites that produce them.

IRT Benefits

IRT allows for easy non-invasive techniques that are accurate and consistent. Conventional inspections require the use of visual techniques, invasive procedures, or crawling around in dirty restrictive floor places or ceilings. IRT has ensured that these conventional techniques, which may be required by local regulations, are backed up with the latest technology, thus overcoming weaknesses in current conventional inspections.

IRT reduces the time needed to find termite infestations and locates termites where other conventional methods fail or give ambiguous results. IRT's non-invasive methods minimize damage to homes that usually occurs during conventional inspections, and therefore saves homebuyers and owners money. When an experienced operator uses the correct IRT equipment, there is no doubt that IRT makes conventional methods of pest detection look old and outdated. Use of IRT, along with conventional inspection techniques, ensures that customers receive the most complete service package available.

Industry Awareness

Results from case studies show IRT is the most efficient, accurate, and cost-effective tool to detect termite infestations. However, it is still not widely used due to lack of awareness of IRT's effectiveness by many in the pest control industry.

Industry education about the use and benefits of IRT is necessary for two main reasons:

1. The pest industry is similar to many other industries where the majority does not readily accept change.
2. Operators without any IRT training may use unsuitable cameras and report inaccurate results. This can affect the credibility of IRT.

Case Study 1 – Convincing Industry Peers

An inspection company north of Brisbane contacted PBC for a second opinion on an inspection. The company had already carried out a conventional pest inspection complying with the relevant Australian standards.

The licensed inspector found visual evidence of previous termite activity and high moisture readings with the use of a non-intrusive moisture meter within the dwelling. As usual, the inspector performed an invasive inspection of the wall cavities using an optical bore scope, resulting in the exposure of some termite mud; however no active termites were present. The original inspection company satisfied itself that all measures had been taken to determine the dwelling was free of live termites.

PBC was contracted to report on specific damage caused by termites. All parties involved were present at the time of this inspection, including the owner, buyer, tenant, real estate agent and original inspection company.

PBC began thermal imaging of the walls and within a few minutes located an abnormality, approximately five feet up the wall in the lounge room (Fig. 1, please **click here to view figure**). It was a round cold spot approximately one-inch in diameter. The other inspector was directed to the exact location of the thermal anomaly. He drilled a half-inch hole through the plasterboard to fit a bore scope. On removing the drill from the wall, there were live termites on the end of the drill bit.

This was to the amazement of all involved as the other inspection company had already looked inside this wall cavity with a bore scope and nothing was visible. What happened next was even more amazing. A small heat pattern (approximately two-inches in diameter) viewed on the external IRT monitor was moving from the bottom of the wall upwards to the freshly drilled hole. The heat pattern was traced up the wall until it disappeared at close proximity to the hole. Then out of the hole came soldier termites, to defend against the intrusion.

In this case, thermal imaging proved to be more effective than more traditional methods, i.e. visual inspection, moisture meter, and invasive bore scope. IRT had the advantage of being able to scan the area quickly, providing a complete overview of the dwelling. It was able to pinpoint the anomaly that was not visible, and in a location where other spot investigative tools would have been used.

After the IRT inspection, the original inspection company still wasn't quite convinced of the benefits of thermal imaging. However, within two years that company did purchase a high-quality IR camera, and the firm is now an enthusiastic promoter of IRT.

Case Study 2 – Differences in Detection Instruments

In this case an inspection company conducted both a traditional and IRT pest inspection for a buyer of a dwelling in subtropical Brisbane. The company found active termites in the sub-floor. Numerous termite mud leads went up into the dwelling and disappeared into the wall framing that was visible in the sub floor. However, they did not find visual evidence of active termites inside the dwelling, particularly around the walls in question.

The thermal imaging of the dwelling was performed with a 160 x 120 pixel resolution IR camera, which showed nothing. Still, the other evidence indicated termites in the wall, but it could not be proven without an invasive and/or destructive investigation. At this point, the owner engaged PBC to conduct a thermal scan of the dwelling.

PBC used a FLIR B-Series 320 x 240 resolution camera (Figure 2, please **click here to view figure**), which enabled us to immediately find the termite anomaly and capture real time images showing the exact location of the termites (Fig. 3, please **click here to view figure**). When in doubt, other instruments can be used to confirm IRT findings. In this case, confirmation of termite anomalies was supported using Termatrac, a microwave movement detection device, plus an AED 2000 acoustic listening device. Using this combination of instruments, chemical treatments were placed in the right areas to achieve more effective eradication.

The advantage of higher-resolution IR cameras is being able to quickly find small anomalies created by termites without the expense of pulling walls apart. This points out not only the need for IRT, but also the need for an appropriate IR camera, and a properly trained operator to use it.

Case Study 3 – Power of Technology

Recently PBC was called by a real estate company to perform a termite inspection for prospective buyers. Once at the property, PBC noticed that another inspection had already been completed. Drill holes under a windowsill marked where the previous inspection had penetrated the wall to check for damage. IRT confirmed their suspicions and found what appeared to be water damage under the window.

However, during a normal visual inspection, no furniture or belongings are to be moved without the consent of the owner. Consent is not always received. This makes it difficult for inspectors to visually check all areas of a dwelling. Storage areas, behind wardrobes, and kitchens create blind spots for conventional inspections. IRT reduces this problem.

In this particular dwelling, PBC used IRT to check ceilings, walls, and floors of the dwelling. Other areas we were able to check with a handheld IR camera included high ceilings and behind couches and kitchen cupboards. While looking under the stairs the PBC inspector noticed a hot spot (Fig. 4, please **click here to view figure**). By being able to maneuver the handheld camera behind boxes and other stored material, IRT revealed a warm area on the camera screen. By showing this to the home owner, we received permission to move these items, and found more definitive evidence of termites.

The real estate agent was amazed and the buyers annoyed. The buyers questioned why the previous inspection had not detected termites. The company had done all that was required under law, but missed the infestation because their inspectors could not get permission to move material that limited the inspection. IRT gives inspectors the capability to surpass conventional methods and legal requirements in termite detection. With an experienced and qualified inspection team, IRT can present initial evidence that then allows them to accomplish more thorough inspections.

This case shows that IRT goes where no other method of termite detection can go. It locates what others fail to find and displays what others fail to see. The real estate company that called us is now one of PBC's best customers.

Summary

IRT is an essential tool in PBC's core business: pre-purchase inspections for homebuyers. Inspections using IRT for termites, rot, and other pests that damage a home's timber structure are completed with greater accuracy, effectiveness, and efficiency compared to conventional methods.

IRT pinpoints active termite infestations, which limits the need for second opinions or confirmations. When it comes to IRT, termites are their own worst enemy. The carbon dioxide they produce during digestion and the mudding used to construct their tunnels, create irregular heat patterns that IRT quickly and easily detects. Once IRT has located the infestation, spot analysis can be confirmed with the use of Termatrac and AED 2000, which enables more accurate application of eradication methods.

PBC's use of IRT is helping establish the credibility of this technology within the industry. We can show that an experienced operator using the correct IRT equipment will locate termites in a fraction of the time compared to conventional methods. This saves homebuyers and owners money, and provides better assurance of dwelling security compared to other inspection techniques. More information on IR cameras and thermal imaging technology is available at **www.goinfrared.com/WRE-TermiteInspections**.

About the Author

Mark Rentoul is a licensed Builder, Building Inspector, Pest Inspector, and Pest Controller in Australia with the Queensland Building Services Authority. He is licensed by the Queensland Health Department as a Pest Management

Technician. He is a Certified Thermographer of Building Science and a Level II Thermographer. He is a Certified Resistographer and has trained in the United States, Asia and at Melbourne University Australia.

Rentoul operates Prime Building and Pest Consultants Pty Ltd. and specializes in Infrared Thermal Imaging. He is a leader in IRT in Building and Pest Inspections within Australia. His company employs nine inspectors using thermal imaging to investigate structural, electrical, plumbing, termites, roof tops, and energy efficiency within the residential and commercial markets.

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News Release U.S. Environmental Protection Agency New England Regional Office

May 27, 2009

Contact: EPA Office of Public Affairs, (617) 918-1010

Connecticut Receives $485K in Economic Recovery Funds to Improve Water Quality, Create Jobs

EPA: Funds keep and create jobs to help prevent water pollution and protect human health and the environment

(Boston, Mass. – May 27, 2009) – In an effort to improve water quality and create jobs, EPA has awarded $485,000 to the Connecticut Department of Environmental Protection under the American Recovery and Reinvestment Act of 2009.

A total of $39 million will be awarded nationally to states for Water Quality Management Planning (WQMP) grants, which will keep and create jobs to help prevent water pollution and protect human health and the environment.

"The Recovery Act investments are meeting urgent needs for economic growth and protecting human health and the environment," said EPA Administrator Lisa P. Jackson. "Communities across the nation can count on green jobs to help pull them out of this downturn and ensure the long-term strength of our economy and our environment."

Planning is an important step in EPA's goal to improve water quality in America's lakes, rivers and streams. WQMP grants support a broad range of activities, such as setting standards, monitoring the quality of the water, developing plans to restore polluted waters, and identifying ways to protect healthy waters from becoming polluted.

"Including Recovery funding for water quality management planning was a smart way to ensure that as we upgrade our water treatment plants, we are also keeping a focus on the bigger environmental picture," said Ira Leighton, acting regional administrator for EPA's New England office. "These efforts can result in improvements such as better strategies for reducing nonpoint source pollution, employing green infrastructure, improving water or energy efficiencies, and other environmental innovations."

States are also encouraged to use these funds for more innovative planning activities like developing plans to adapt to climate change, analyzing trends in water availability and use, and creating low-impact development programs. Grants are awarded to state agencies and some of the funds can be awarded to regional and interstate planning organizations.

President Obama signed the American Recovery and Reinvestment Act of 2009 on February 17, 2009, and has directed that the Recovery Act be implemented with unprecedented transparency and accountability. To that end, the American people can see how every dollar is being invested at Recovery.gov.

Carbon dioxide levels red-flagged at Kings High School

Westport, CT

By Frank Luongo
Posted: 05/20/2009 01:03:25 AM EDT

Recently documented elevated levels of carbon dioxide in several classrooms at Westport's Kings Highway School (KHS) have led former and present KHS parents to advocate replacing what is known to be a systemically deficient air-handling system at the elementary school.
Twenty parents who are concerned that high CO2 levels could be a harbinger of the mold conditions that came close to delaying a KHS opening for the 2007-08 school year, met Monday to discuss strategy at Town Hall and were planning to make their case for a new air-handling system this morning at a meeting of the KHS Parent Teachers Association.
Lauren Tarshis, who has been a KHS parent since 1998 and will be for another five years, chaired the Monday meeting and described mold as being "like a dandelion in the lawn. It comes back, if conditions remain that caused it to develop."

Her concern is that an air-handling system that cannot adequately clear the school of carbon dioxide will allow a build-up of the humidity and moisture that causes mold to incubate and migrate, which two years ago required the school system to spend a quarter-million dollars to deal with KHS fungal contamination.
Coinciding with the timing of the CO2 reports was the release by the school administration in late April of the final report of the industrial hygienist who directed the KHS review and remediation in the fall of 2007.
Present at the Monday meeting were former KHS parents Amanda Gebicki and Allison Reilly, who had successfully forced the release of the hygienist's report by way of a state Freedom of Information Act (FOIA) filing.
As she did in comments at a meeting of the Westport Board of Education on April 27, Reilly said Monday that the report shows that "the sources of the mold were not identified" in what the hygienist was able to review at the school. "That's why the new ventilation system must be done now," she said.
Asked in an e-mail request for a response to those and other comments by parents at the BOE meeting, after this newspaper reviewed the digital recording of the meeting, Superintendent of Schools Elliott Landon declined to comment.
Second Selectman Shelly Kassen, who was present for part of the Monday meeting, said that the replacing of the KHS air-handling system is a matter that "we need to keep alive," and she said that the Board of Finance (BOF) is reviewing the school system's capital-spending forecast for that ventilation project.

While a BOF approval is required for a special bonding authorization, Kassen reminded the parents that only the school board has the authority to initiate such a request.
A consultant's report in 2002, which recommended corrections to the existing KHS ventilation system, led the school system to project some amount of capital spending on the system in every budget since that date.
In the aftermath of the mold crisis in 2007, another study called for a new air-handling system at the school, for which the capital forecast in the recently adopted school budget projects a $2 million upgrade for the 2011-12 school year.
Supporting a stepping-up of that schedule, KHS parent and RTM member Sean Timmins said that a new system would not only ventilate the school more quickly, but would also be equipped with high- efficiency-particulate-air (HEPA) filters that would screen out pollutants and help keep the school clean.
In the meantime, he said that the school system should "enforce stricter window protocols" at the KHS facility.

To compensate for inadequate ventilation, some parents say as far back as 1986, KHS teachers have been following a regimen of opening and closing windows as a stop-gap measure until a new system can be put in place.
That protocol has been found not to be working in C02 testing of eight classrooms in March, according to KHS parent Mark Kornbluth, who has two children at the school. He made the results of that testing available to the Westport News.

Those eight classrooms were identified in the minutes of a meeting on March 11 of the Tools for Schools (TFS) committee as being among 15 classrooms that are the focus of ongoing testing to determine the presence of carbon dioxide higher than the accepted threshold of 1000 parts-per-million (PPM).
A test conducted on the same day as the TFS meeting in Room 21, one of the targeted classrooms, revealed in over 50 air-samples taken at five-minute intervals between 8:54 a.m. and 1:04 p.m., two results at over 1300 PPM, one at 1246, 15 between 1101 and 1184 and 24 between 1000 and 1091 PPM.
Morning samples on March 10 at Room 13, also among the targets, showed a range from 1006 to 1160 PPM in more than 50 samples, while the afternoon results recorded more than 20 samples, ranging from 1053 to 1118 PPM.
The TFS minutes indicate agreement that "teachers should be reminded of the window opening procedures" and that they "should have clearer expectations about the time the windows should open and close. The current instructions leave it up to their discretion."
Westport News, Westport CT

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