

Reducing Outdoor Contaminants in Indoor Spaces

2016 July Compendium of Events, News, Resources, Funding Opportunities, and R&D Results for ROCIS Stakeholders

The themes for this edition of Tom Phillips' Compendium include, but are not limited to IAQ, environmental health, energy efficiency, green buildings, and fossil fuels.

Sign up [here](#) for upcoming compendiums, ROCIS event updates and briefs, and to [learn more](#) about the ROCIS stakeholder air quality initiative involving low cost monitoring and interventions.

In this compendium, a table of contents and abstracts...

EVENTS – REGIONAL AUDIENCE

- ✓ Jul. 20 and beyond, seminars and webinars. [PA Clean Jobs Forum at Green Building Alliance](#).
- ✓ Jul. 29, 2016. [Pittsburgh Green Workplace Challenge, Workshop #1](#): Getting Started with the GWC
- ✓ Jul. and beyond, webinars. [Residential Energy Efficiency Webinars](#).
- ✓ Oct. 18-19, 2016. [P4: People, Planet, Place and Performance](#). Pittsburgh, PA.

EVENTS – NATIONAL AUDIENCE

- ✓ Jul. 21, 2016 public meeting, webcast. [Overcoming Barriers to Zero and Near Zero Emission Transportation in Low Income Communities](#).
- ✓ Jul. 31, 2016. Public comments due on draft update [to Build It Green Rating for Green Homes](#).
- ✓ Aug. 21-26, 2016. [2016 ACEEE Summer Study on Energy Efficiency in Buildings](#). Pacific Grove, CA.
- ✓ Aug. 25-26, 2016. [Advancing the Science of Community Engaged Research](#). Washington, D.C.
- ✓ Aug. 29, 2016. [GHHI's Annual Executive Leadership Institute](#). Austin, TX.
- ✓ Sep. 7-29, 2016. [Indoor Air Quality & Energy Webinar Series](#). Maine IAQ Council.
- ✓ Sep. 8-9, 2016. [2016 Transportation and Communities Summit](#). Portland, OR.
- ✓ Sep. 13, 2016. [Built Green Conference 2016](#). Bothell, WA.
- ✓ Sep. 13-15, 2016. [Living Product Expo: Crafting the Future of Materials](#). Pittsburgh, PA.
- ✓ Sep. 21-25, 2016. [Annual North American Passive House Conference](#). Philadelphia, PA.
- ✓ Sep. 22 and beyond, webinars. [Gaining Buy-In to Provide Optimal HVAC](#). EPA.
- ✓ Oct. 3-4, 2016. [National Association of Realtors Green Designation Training](#). Burbank, CA.
- ✓ Oct. 5-7, 2016. [GreenBuild 2016](#). USGBC. Los Angeles, CA.
- ✓ Oct. 9-13, 2016. [International Society of Exposure Science \(ISES\) 2016: Interdisciplinary Approaches for Health and the Environment](#). Utrecht, Netherlands.
- ✓ Oct. 12 and beyond quarterly webinar. [Federal Committee on IAQ, Conference Call](#). Archives also.
- ✓ Oct. 25-27, 2016. [Green the Church: Global Leadership Summit](#). Baltimore, MD.
- ✓ Oct. 29 - Nov. 2, 2016. [American Public Health Association Annual Meeting & Exposition](#). Denver, CO.
- ✓ Dec. 5-8, 2016. [NIEHS Environmental Health Science FEST](#). Research Triangle Park, NC. [RSVP](#).
- ✓ Feb. 23-25, 2017. [CitiSci2016](#). Location TBA.

REGIONAL NEWS

HEALTH

- ✓ [Legionnaires' Disease in Cancer Patient Likely Hospital-Acquired](#). Jul. 1, 2016.
- ✓ [State DEP to investigate PFC contamination on Easton Road, Bucks County](#). Jun. 21, 2016.

SUSTAINABILITY

- ✓ [Housing Authority to Buy Manchester Units](#). Jun. 23, 2016.
- ✓ [Survey Shows Public Transit is Biggest Regional Transportation Concern](#). Jul. 10, 2016.
- ✓ [Arrival of SolarCity in Pittsburgh Reflects the Ongoing Solar-energy Boom](#). Jun. 15, 2016.

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REGIONAL NEWS continued

AIR POLLUTION

- ✓ [“Port Authority of Allegheny County Considers Adding Electric Buses,”](#) Jun. 24, 2016.
- ✓ [“Advocates Ask Port Authority of Allegheny County to Move Toward All-electric Fleet,”](#) Jun. 24, 2016.
- ✓ [A Change in the Air After the Closure of the Shenango Coke Plant.](#) Jun. 1, 2016.

FOSSIL FUELS

- ✓ [Everyone Declared a Winner in Ethane Cracker War.](#) Jul. 3, 2016.
- ✓ [Map Displays Methane Threats in PA.](#) Jun. 15, 2016.
- ✓ [DEP Begins Technical Review of Pennsylvania LNG Pipeline Project Permit Applications.](#) Jul 8, 2016.

OTHER NEWS

IEQ

- ✓ [Three Things We Need To Do To Develop a Healthy Housing Stock.](#) Jun. 13, 2016.
- ✓ [Indoor Weather Reports Marketing Campaign.](#) Jul. 2016.

ENVIRONMENTAL HEALTH

- ✓ [East of Flint, One Company Defiantly Continues To Produce Lead Pigments.](#) Feb. 17, 2016.
- ✓ [In Some ZIP codes, 1 in 7 Children Suffer from Dangerously High Blood Lead Levels; Oliver Satire.](#) Jun. 15, 2016.
- ✓ [Housing Experts Recommend Fixes to HUD's Proposed Health and Safety Assessment of Assisted Housing.](#) Jul. 6, 2016.
- ✓ [Syracuse Mayor Signs Green & Healthy Homes Initiative Compact for the Greater Syracuse Area.](#) Jun. 16, 2016.
- ✓ [What Runners and Cyclists Need to Know About Our Air Pollution.](#) Jun. 19, 2016.

ENERGY EFFICIENCY AND GREEN BUILDINGS

- ✓ [Could Net-Zero Energy Schools Improve Children’s Education?](#) Jul. 7, 2016.
- ✓ [DOE's BlocPower Works to Retrofit Underserved Communities.](#) Jul. 6, 2016.
- ✓ [Fannie Mae Offers Cheaper Option to Fund Solar, Efficiency.](#) Jun. 3, 2016.
- ✓ [Southern California Gas Co. Expands its Energy Savings Assistance Program.](#) Jun.29, 2016.
- ✓ [Power Users in Los Angeles: Learning to Waste Less.](#) Jun. 16, 2016.
- ✓ [Seattle Built Green Incentive.](#) Jul. 2016.
- ✓ [Suburban Apartment Complex in San Diego County Earns a Top GreenPoint Rated Score.](#) Jun. 14, 2016.

LAND USE PLANNING

- ✓ [Toxic Waste: From NIMBY to Now in Everyone’s Backyard.](#) Jun. 23, 2016.

FOSSIL FUELS

- ✓ [Portland City, County Leaders Call On Governor To Help Stop Oil Trains.](#) Jun. 14, 2016.
- ✓ [How Train Inspectors Missed Broken Bolts that Caused the Mosier Oil Train Derailment.](#) Jul. 8, 2016.
- ✓ [Pros and Cons: Promise, Pitfalls of Natural Gas.](#) Jul. 7, 2016.
- ✓ [Can New Technology Win in War on Diesel Trucks?](#) Jun. 20, 2016.
- ✓ [Communities Uneasy As Utilities Look For Places To Store Coal Ash.](#) Jul. 5, 2016

SENSORS

- ✓ [How Sensors on Locusts Could Help Us Detect Bombs and VOCs.](#) Jun. 28, 2016.

ENVIRONMENTAL JUSTICE

- ✓ [Pesticide Buffer Around California Schools is Proposed.](#) Jun. 29, 2016.
- ✓ [Green the Church: On a Mission of Faith for Sustainability.](#) Jun. 29, 2016

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RESOURCES

ENVIRONMENTAL HEALTH

- ✓ [Healthy Babies Bright Futures campaign](#). Affordable water test kit for lead and information. Healthy Building Network.
- ✓ [Healthy Housing: A Pathway Out of Poverty?](#) Norton, 2011.
- ✓ 2016 Northeast Energy Efficiency Partnership Summit, [slides](#) and [videos](#).

FOSSIL FUELS

- ✓ [Oakland City Council Voted Unanimously to Prohibit Shipping and Handling of Coal in Oakland, CA](#).

RESILIENT COMMUNITIES

- ✓ [Products and Tools for Carbon-Neutral Built Environments by 2030](#). Jul. 1, 2016.

FUNDING OPPORTUNITIES

- ✓ [Scaling up the Next Generation of Building Efficiency Packages](#).

RESEARCH AND DEMONSTRATION

IEQ

- ✓ [Do the Plants Tested Have an Impact on IAQ?](#) Hormann et al., 2016.
- ✓ [Microbiomes of the Built Environment: From Research to Application](#). National Academy of Sciences, March and June, 2016.
- ✓ Various journal articles on IEQ and health in schools, homes, stores, and aircraft. [Indoor Air, July 2016 issue](#) and [Early View articles](#). For example re: indoor and outdoor PM and surface dust:
 - [Assessment of ventilation and indoor air pollutants in nursery and elementary schools in France](#). Canha et al., 2016.
 - [Inflammatory potential in relation to the microbial content of settled dust samples collected from moisture-damaged and reference schools: results of HITEA study](#). Huttunen et al., 2016.
 - [Spatiotemporally resolved black carbon concentration, schoolchildren's exposure](#). Rivas et al., 2016.
 - [Fungal and bacterial growth in floor dust at elevated relative humidity levels](#). Dannemiller et al., 2016.
 - [Real-time transformation of outdoor aerosol components upon transport indoors measured with aerosol mass spectrometry](#). Johnson et al., 2016.
 - [The impact of particle filtration on indoor air quality in a classroom near a highway](#). van der Zee, et al., 2016.
 - [Quantitative filter forensics for indoor particle sampling](#). Haagland and Siegel, 2016.
 - [Benefit-cost analysis of commercially available activated carbon filters for indoor ozone removal in single-family homes](#). Aldred et al., 2016.
 - [Real-time transformation of outdoor aerosol components upon transport indoors measured with aerosol mass spectrometry](#). Johnson et al., 2016.
 - [Using portable particle sizing instrumentation to rapidly measure the penetration of fine and ultrafine particles in unoccupied residences](#). Zhao and Stephens, 2016.
 - [Health benefits and costs of filtration interventions that reduce indoor exposure to PM2.5 during wildfires](#). Fisk and Chan, 2016.
 - [Indoor inhalation intake fractions of fine particulate matter: review of influencing factors \(review\)](#). Hodas et al., 2016.
 - [Role of mechanical ventilation in the airborne transmission of infectious agents in buildings \(review\)](#). Luongo et al., 2016.

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RESEARCH AND DEMONSTRATION

ENVIRONMENTAL HEALTH

- ✓ [Pavement Sealcoat Products May be More Toxic than Suspected](#). Jul. 2016.
- ✓ [Can Air Pollution Negate the Health benefits of Cycling and Walking?](#) Tainio et al., 2016.
- ✓ [Active Transport: Exercise Trumps Air Pollution, Almost Always \(editorial\)](#). Woodward and Samet, 2016.
- ✓ [Occupational Exposure to Pesticides and the Incidence of Lung Cancer in the Agricultural Health Study](#). Bonner et al., 2016.
- ✓ [Child's Thumbsucking, Nail Biting May Keep Allergies at Bay](#). Jul. 11, 2016.
- ✓ [The Fecal Microbiota Profile and Bronchiolitis in Infants](#). Hasegawa et al., Jul. 2016.
- ✓ [Do Bacteria in the Gut Set the Stage for Who Gets Viral Bronchiolitis and Its Severity?](#) Seed, July 2016 editorial.
- ✓ [Redefining Health and Well-being in Older Adults](#). Jun. 14, 2016.
- ✓ [Pediatric Emergency Visits and Short-Term Changes in PM_{2.5} Concentrations in the U.S. State of Georgia](#). Strickland et al., 2016.

CLIMATE CHANGE

- ✓ Climate Change in Pennsylvania, [2015 Penn State Report](#) and [interview](#) with DEP Secretary.

ASTHMA

- ✓ [Five New Sites Join Pay for Success Asthma Intervention Tests](#). Jul. 2016.

SENSORS

- ✓ [Monitoring Air Pollution with Moss](#). Jul. 8, 2016.
- ✓ [Southern Ontario Centre for Atmospheric Aerosol Research](#). University of Toronto.

AIR QUALITY

- ✓ [Traffic Emissions May Pollute 1 in 3 Canadian Homes](#). Evans et al., 2015.

ABSTRACTS for the above items

EVENTS – REGIONAL AUDIENCE

Jul. 20 and beyond, seminars and webinars. [PA Clean Jobs Forum at Green Building Alliance](#). Hear from experts about clean energy policy and from businesses that are leading the way in creating jobs.. Events include the 2030 Race to Zero Energy monthly series and the Inspire Speakers series.

EVENTS – NATIONAL AUDIENCE

Sep. 22 and beyond, webinars. [Gaining Buy-In to Provide Optimal HVAC](#). EPA. Previous webinars are also available online.

Oct. 9-13, 2016. [International Society of Exposure Science \(ISES\) 2016: Interdisciplinary Approaches for Health and the Environment](#). Utrecht, Netherlands. This multidisciplinary meeting includes topics such as pollutant exposure, dose, health risk assessment, policy, emerging chemicals, and science education.

Oct. 12 and beyond and quarterly webinar. [Federal Committee on IAQ, Conference Call](#). Agency updates and special presentations. Previous webinars are also available.

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REGIONAL NEWS

HEALTH

[Legionnaires' Disease in Cancer Patient Likely Hospital-acquired](#). On June 14, positive Legionella cultures were found in a water tank supplying the Allegheny General Hospital's main inpatient facility. The previous week, workers found positive cultures in a tank that supplies water to the health system's outpatient. Testing of water sources was then broadened. Jul. 1, 2016.

[State DEP to Investigate PFC Contamination on Easton Road, Bucks County](#). Perfluorinated compounds (PFCs) were found in exceedance of the 2016 EPA Lifetime Health Advisory in parts Bucks County. DEP is working expediently to investigate private wells in the area, remove them from service and determine a long term solution. Private well owners and community well owners serving highly sensitive populations, such as nursing homes and daycares, within approximately 1 mile of the impacted Cross Keys public well will be contacted to schedule water sampling for PFCs. Bottled water will be immediately provided to any residence whose samples exceed EPA's advisory level. Jun. 21, 2016.

SUSTAINABILITY

[Housing Authority to Buy Manchester Units](#). The Pittsburgh Housing Authority will buy 66 multifamily units, and provide tenants with a self-sufficiency office with program support for general education, employment training, home-ownership education, and an escrow account to help future purchase of a home. The authority's 21st-century model has been to divest of its large properties, but it is pivoting to begin buying vacant and blighted sites to ensure affordability, health, and safety. Jun. 23, 2016.

[Survey Shows Public Transit is Biggest Regional Transportation Concern](#). The Regional Transportation Alliance asked 800 groups what transportation changes would make the biggest difference for their clients or members. The top suggestion was to improve public transit, which was mentioned by 46 percent of all respondents. A forum on the "[Future of Mobility](#)" was held on July 11. A public-private partnership is expected to recommend transportation improvements. Jul. 10, 2016.

[Arrival of SolarCity in Pittsburgh Reflects the Ongoing Solar-energy Boom](#). SolarCity brought its [no-money-down pitch](#) to town in April. The arrival of SolarCity boosts rooftop-solar prospects in a region where the largest electricity company has just 350 customers with photovoltaics. [Solarize Allegheny](#), an initiative funded by the Heinz Endowments is a matchmaker for installers and customers. Jun. 15, 2016.

AIR POLLUTION

["Port Authority of Allegheny County Considers Adding Electric Buses,"](#) Pittsburgh Tribune-Review, Jun. 24, 2016.

["Advocates ask Port Authority of Allegheny County to Move Toward All-electric Fleet,"](#) Pittsburgh City Paper, Jun. 24, 2016.

[A Change in the Air After the Closure of the Shenango Coke Plant](#). Spring 2016 is proving to be unlike for residents of communities surrounding Neville Island. Since the DTE Energy Shenango Coke Plant ended production in January, pollution from the battery no longer intrudes in their lives. Daily routines, as ordinary as opening windows to let in an evening breeze, are joyful events for many.. Jun. 1, 2016.

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REGIONAL NEWS continued

FOSSIL FUELS

[Everyone Declared a Winner in Ethane Cracker War](#). Pennsylvania's welcome mat included potentially more than \$1 billion in tax incentives and a way to cap environmental liability for the former Horsehead zinc smelter site where the cracker will rise over the coming years. That is in exchange for 6,000 construction jobs and 600 permanent jobs on site, Shell has promised. Philadelphia is dusting off its refineries and building more chemical plants to capitalize on the natural gas and liquids coming out of Appalachia. Jul. 3, 2016.

[Map Displays Methane Threats in PA](#). About 1.5 million people live within 0.5 miles of one or more of the more than 100,000 oil and gas facilities operating in Pennsylvania. The Clean Air Task Force said the new online map can help people assess the health risks they face in their own homes. Jun. 15, 2016.

[DEP Begins Technical Review of Pennsylvania LNG Pipeline Project Permit Applications](#). The project would expand the existing Sunoco Mariner East pipeline system for liquefied natural gas, crossing 17 counties in southern Pennsylvania. DEP will provide for enhanced public participation opportunities by extending the comment period from 30 to 60 days and holding public hearings in the affected regions later this summer. Jul 8, 2016.

OTHER NEWS

IEQ

[Three Things We Need To Do To Develop a Healthy Housing Stock](#). A [new working paper](#) from Harvard University explores healthy home concerns and behaviors among American homeowners and renters. We show that both groups are interested in improving the indoor environmental health of their homes, but face myriad challenges to doing so. Three important steps we can take toward improving the health of our housing stock are described, and the results of a healthy home survey are shown. Jun. 13, 2016.

[Indoor Weather Reports Marketing Campaign](#). Built Green in Washington introduced a new campaign that celebrates the very real benefits of living in a Built Green home... and the meteorological conditions you might find in a home that isn't Built Green. The campaign revolves around six indoor weather reports exploring the drafts, leaks, and temperature fluctuations that non-Built Green homeowners face. Six short [videos](#) are available (click on Play icon to advance to next video). Jul. 2016.

ENVIRONMENTAL HEALTH

[East of Flint, One Company Defiantly Continues To Produce Lead Pigments](#). Dominion Color, just 250 miles to the east in Toronto, continues to produce lead compounds and distribute them worldwide for use in paints and plastics. The countries importing Dominion's lead pigments, in return, export plastic products to North America, completing a circle of toxic trade. Since October 2012, the US Consumer Products Safety Commission has issued 2,192 violation notices for products that exceeded US laws on lead in paint and children's products. Feb. 17, 2016.

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OTHER NEWS ENVIRONMENTAL HEALTH continued

[In Some ZIP codes, 1 in 7 Children Suffer from Dangerously High Blood Lead Levels; Oliver Satire](#). Despite long-running public health efforts to reduce lead exposure, many U.S. children still live in environments where they're likely to encounter a substance that can lead to lasting behavioral, mental and physical problems. In certain regions of the country, including parts of New York, Pennsylvania and Ohio, more than 1 in 7 children tested for elevated levels of lead in their blood. Lead testing of young children and infants is not required in much of the US. [John Oliver and the Muppets](#) describe the history of the problem in a satirical way, and what we can do about it (Note: R-rated). Jun. 15, 2016.

[Housing Experts Recommend Fixes to HUD's Proposed Health and Safety Assessment of Assisted Housing](#). The National Center for Healthy Housing submitted comments that highlighted a key deficiency in the draft HUD rule that would only require visual assessment of lead in paint and soil. In addition, several other key items that address indoor air pollution, ventilation, safety, and thermal comfort were listed as missing or deficient in the draft rule. Jul. 6, 2016.

[Syracuse Mayor Signs Green & Healthy Homes Initiative Compact for the Greater Syracuse Area](#). City and county representatives signed a compact supporting efforts to make the Greater Syracuse area a leader in healthy homes. The Green & Healthy Homes Initiative (GHHI) Greater Syracuse is a comprehensive approach to align health, safety, lead hazard reduction, energy efficiency and weatherization interventions in low to moderate income homes. In addition, Home Headquarters received \$1 million from New York State to pursue similar work for more than 200 homes. Onondaga County was recently awarded a \$3.4 million dollar grant from HUD to eliminate lead paint and other health hazards in 195 low-income housing units, and to perform healthy homes interventions in 100 units. Jun. 16, 2016.

[What Runners and Cyclists Need to Know About Our Air Pollution. The MESA Air study](#) in Seattle used lung scans and other methods to measure their subjects' exposure to soot, nitrogen dioxide and oxide, and PM2.5. Unfortunately, athletes who train outside are at greater risk from these pollutants because they inhale 10 to 20 percent more air than sedentary people, and because they shift from nasal breathing, which filters some bad air, to breathing through their mouths. However, the net health benefits of exercise in the US generally outweigh the health risks. Tips for minimizing pollutant exposure while exercising or driving are also provided. Jun. 19, 2016.

ENERGY EFFICIENCY AND GREEN BUILDINGS

[Could Net-Zero Energy Schools Improve Children's Education?](#) The majority of school facilities fail to meet even basic occupant needs, and fall short on meeting the evolving education demands for a 21st century economy. Rocky Mountain Institute and New Buildings Institute (NBI) believe schools are a prime market for net-zero energy design and operation, in both new construction and deep energy retrofit projects of existing building. Early examples from California to Virginia and analysis show that net-zero schools are more beneficial to districts, occupants, and the environment. And even in the absence of bond funding, numerous ways exist to finance and achieve the goals of net-zero energy, such as [energy performance contracting](#), power purchase agreements, and other public institution energy-efficiency financing mechanisms. Jul. 7, 2016.

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OTHER NEWS ENERGY EFFICIENCY AND GREEN BUILDINGS continued

[DOE's BlocPower Works to Retrofit Underserved Communities](#). The BlocPower initiative uses funding, audits, financial analysis, and retrofits to enhance the energy efficiency and non-energy benefits of buildings in low-income communities, **especially small businesses, houses of worship and low-income housing in underserved communities**. The initiative is revolutionizing how such buildings finance directly needed energy upgrades, by approaching lenders and investors with **large projects composed of bundles of smaller projects**. Investing can also be done directly online. Jul. 6, 2016.

[Fannie Mae Offers Cheaper Option to Fund Solar, Efficiency](#). The HomeStyle Energy mortgage option allows borrowers to finance energy efficiency and clean energy upgrades equal to up to 15 percent of the as-completed appraised value of the home. The financing can be used for new projects or to take higher-interest unsecured loans or PACE loans and refinance them or roll them into a potentially lower-cost mortgage. Jun. 3, 2016.

[Southern California Gas Co. Expands its Energy Savings Assistance Program](#). It now includes financial support for up to 500,000 additional low-income families to receive no-cost energy efficient home upgrades. In addition, SoCalGas is intensifying outreach efforts to **increase enrollments in the program to ensure the health, safety, and comfort of its most vulnerable customers**. Jun. 29, 2016.

[Power Users in Los Angeles: Learning to Waste Less](#). The [L.A. Energy Atlas](#) project, a first-of-its-kind interactive website, enables policymakers and the public to sort energy consumption and emissions within the county by building size, vintage, construction materials, neighborhood, and other metrics. Among its conclusions: **Buildings are responsible for 40% of the county's greenhouse gas emissions**, more than from motor vehicles in a region known for its reliance on the automobile. Jun. 16, 2016.

[Seattle Built Green Incentive](#). Seattle City Light is offering an incentive to builders with projects in their territory. Projects that use ductless heat pumps as the primary heat source and achieve Built Green 4- or 5-Star certification can receive \$1,500 per unit. Jul. 2016.

[Suburban Apartment Complex in San Diego County Earns a Top GreenPoint Rated Score](#). [North Santa Fe Apartments](#) in Vista, CA scored in the top 1% all-time for [GreenPoint Rated](#) multifamily projects. In addition to taking an innovative approach to energy efficiency and resource conservation, they really thought about the health and welfare of the residents, and the community at large. The 68-unit apartment complex was designed to perform about 40% better than California's energy code, to have low emission indoor materials, and be very near a transit station. Jun. 14, 2016.

LAND USE PLANNING

[Toxic Waste: From NIMBY to Now in Everyone's Backyard](#). Some industrial waste is diverted to places close to home such as wallboard, carpet backing, flooring, and contaminated soils into our own backyards and neighborhoods, without any regulation. Recent articles by the Pharos Project describe impacts of this [tire waste](#) and [toxic dirt in building and construction](#) on human health and developer liability, the preventive actions by state and local governments, and what questions we all need to ask. Jun. 23, 2016.

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OTHER NEWS continued

FOSSIL FUELS

[Portland City, County Leaders Call On Governor To Help Stop Oil Trains](#). In Portland, Oregon, 25% of the population lives within ½ mile of the railroad tracks. State and local agencies, along with labor unions, and a physicians group, called for the governor and their congressional delegation to work with President Obama to put a halt to the shipment of Bakken crude oil until Portlanders know it can be transported safely. Jun. 14, 2016.

[How Train Inspectors Missed Broken Bolts that Caused the Mosier Oil Train Derailment](#). In its initial report on Mosier, the FRA said broken lag bolts are more effectively caught if inspections are performed by walking on the tracks instead of driving. Regulators and safety experts say **walking curved sections of track is a good safety measure and sometimes railroad policy**. But the FRA doesn't require it. And Union Pacific didn't do it. Jul. 8, 2016.

[Pros and Cons: Promise, Pitfalls of Natural Gas](#). Yale Climate Connections reviews a few of the main pros and cons of this widely used fuel, which is an increasing source of energy for electricity generation and a major energy commodity for heating and cooking. Environmental and economic issues are discussed, including fracking and jobs. Jul. 7, 2016.

[Can New Technology Win in War on Diesel Trucks?](#) Some say reworking diesel trucks is the better way to go, but many operators hanging on to older, more polluting trucks. Southern California's anti-smog regulators opened a new front on the war on heavy-duty diesel trucks by joining a coalition of agencies stretching from Washington State to New York last week. Jun. 20, 2016.

[Communities Uneasy As Utilities Look For Places To Store Coal Ash](#). Power companies must now recycle coal ash, store it more securely on site, or send the ash to landfills. But, there is concern in the towns where that ash is ending up. Air, water, and health issues are discussed. Jul. 5, 2016.

SENSORS

[How Sensors on Locusts Could Help Us Detect Bombs and VOCs](#). A Washington University team intends to monitor neural activity from the insect brain and decode the odorants present in their environment. The team also plans to use locusts as a biorobotic system to collect samples using remote control. The samples of volatile organic compounds in the insect's proximity could then be analyzed by more conventional methods. Jun. 28, 2016.

ENVIRONMENTAL JUSTICE

[Pesticide Buffer Around California Schools is Proposed](#). California has documented the use of more than 140 different pesticides that are used in large quantities near the state's schools. These pesticides are known to drift from far fields to nearby areas. The state report also highlighted the fact that Latino children in California are almost twice as likely as white children to attend schools near the highest use of these hazardous agricultural pesticides — a civil rights violation that must be addressed immediately. A one-mile pesticide use buffer zone around schools is proposed. Jun. 29, 2016.

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OTHER NEWS ENVIRONMENTAL JUSTICE **continued**

[Green the Church: On a Mission of Faith for Sustainability](#). In its second year, Green the Church is close to having 400 churches in 28 states represented. Its efforts focus on states engaged in work around both the Clean Power Plan, which sets a national limit on carbon pollution produced from power plants, and the “[Polluters Pay Fund](#),” to make polluters pay to clean up their own toxic messes. The group is holding leadership trainings and a national conference this year to help decrease carbon emissions, raise green economy opportunities, and flex the power of the African American church.” Jun. 29, 2016.

RESOURCES

ENVIRONMENTAL HEALTH

[Healthy Babies Bright Futures Campaign](#). Affordable water test kit for lead. Information on how to [reduce exposure to toxic chemicals and the resulting damage to developing babies’ brains](#). This problem can be solved if we all take action both as individuals and together as a movement of concerned citizens. Healthy Building Network.

[Healthy Housing: A Pathway Out of Poverty?](#) The Green and Healthy Housing Initiative provides a collaborative, streamlined and integrated model for reducing the costs of home energy, asthma health care, and home repair, while also providing jobs and training. Norton, 2011.

2016 Northeast Energy Efficiency Partnership Summit, [slides](#) and [videos](#). Presenters from the Northeast and other regions discussed economics, policies, and practices related to energy efficiency and climate change.

FOSSIL FUELS

[Oakland City Council Voted Unanimously to Prohibit Shipping and Handling of Coal in Oakland, CA.](#)

An independent Public Health Advisory Panel addressed public health and safety hazards. It submitted a [report](#) to the City, confirmed by similar analyses. Over 50 speakers registered their opposition to shipping coal through Oakland. Pro-industry claims of job loss were debunked. Jun. 28, 2016.

RESILIENT COMMUNITIES

[Products and Tools for Carbon-Neutral Built Environments by 2030](#). The [Architecture 2030](#) organization has developed a growing network of several North American cities in its 2030 Districts initiative, which employs public-private partnerships to dramatically reduce GHG emissions and to develop resilient built environments for regions. Architecture 2030 and the [U.S. Department of Energy](#) (DOE) have now created the online [2030 Districts Marketplace](#), which offers innovative, reliable, and effective products at below market prices. It also enables one inquiry to obtain multiple bids. Architecture 2030, DOE, and Lawrence Berkeley National Lab have also partnered to improve energy efficiency in **small commercial buildings**. This effort has produced a technical [toolkit](#) that provides technical guidance, resources, and analysis tools for building owners and operators. Jul. 1, 2016.

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FUNDING OPPORTUNITIES

[Scaling Up the Next Generation of Building Efficiency Packages](#). DOE Building Technologies Office. Notice of Intent: the anticipated funding opportunity will seek innovative partnerships to significantly and rapidly increase the uptake of emerging, underutilized, and **multi-system energy technology packages** that are efficient and cost-effective.

RESEARCH AND DEMONSTRATION

IEQ

[Do the Plants Tested have an Impact on IAQ?](#) Hormann et al., poster at [Indoor Air 2016](#).

[Microbiomes of the Built Environment: From Research to Application](#). National Academy of Sciences, March and June, 2016. This expert consensus study will examine the formation and function of microbial communities in built environments, the impacts of such microbial communities on human health, and how human occupants shape complex indoor microbiomes. The [first meeting](#) included presentations on the effect of water system treatment (Flint, MI), water heater settings, and tankless water heaters on increased legionella contamination.. A report is planned for release in 2017.

Various journal articles on IEQ and health in schools, homes, stores, and aircraft. [Indoor Air, July 2016 issue](#) and [Early View articles](#). Such as : indoor and outdoor PM and surface dust: [Assessment of ventilation and indoor air pollutants in nursery and elementary schools in France](#). Canha et al., 2016.

- [Inflammatory potential in relation to the microbial content of settled dust samples collected from moisture-damaged and reference schools: results of HITEA study](#). Huttunen et al., 2016.
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- [Health benefits and costs of filtration interventions that reduce indoor exposure to PM2.5 during wildfires](#). Fisk and Chan, 2016.
- [Indoor inhalation intake fractions of fine particulate matter: review of influencing factors](#) (review). Hodas et al., 2016.
- [Role of mechanical ventilation in the airborne transmission of infectious agents in buildings](#) (review). Luongo et al., 2016.

Reducing Outdoor Contaminants in Indoor Spaces

RESEARCH AND DEMONSTRATION continued

ENVIRONMENTAL HEALTH

[Pavement Sealcoat Products May be More Toxic than Suspected](#). A [study](#) supported in part by NIEHS showed that certain pavement sealcoats used on asphalt driveways and parking lots are significantly more toxic and mutagenic than previously suspected. High molecular weight PAHs in asphalt sealants increased the carcinogenicity almost 10-fold, but these compounds had not been included in previous studies of sealcoat products. Coal tar sealcoats, which are more commonly found in the Midwest and East, were found to be mutagenic than asphalt sealants. The study results were consistent with previous findings from the [U.S. Geological Survey](#), which found that PAHs from pavement sealants build up in soil and house dust. Jul. 2016.

[Can Air Pollution Negate the Health Benefits of Cycling and Walking?](#) Tainio et al., 2016.

[Active Transport: Exercise Trumps Air Pollution, Almost Always \(editorial\)](#). Woodward and Samet, 2016.

[Occupational Exposure to Pesticides and the Incidence of Lung Cancer in the Agricultural Health Study](#). Bonner et al., 2016.

[Child's Thumbsucking, Nail Biting May Keep Allergies at Bay](#). Children who sucked their thumb in elementary school were less likely to suffer from allergies as teenagers and adults, according to a study of 1,000 children in New Zealand. The *Bacteroides*-dominant profile was associated with a higher likelihood of bronchiolitis. The study also found a correlation between nail biting and fewer allergies in adolescence and adulthood. Jul. 11, 2016.

[The Fecal Microbiota Profile and Bronchiolitis in Infants](#). Hasegawa et al., Jul. 2016.

[Do Bacteria in the Gut Set the Stage for Who Gets Viral Bronchiolitis and Its Severity?](#) Seed, Jul. 2016 editorial.

[Redefining Health and Well-being in Older Adults](#). [U. of Chicago researchers](#) found that about half of the people classified as healthy, based on the medical model, had vulnerabilities revealed by the comprehensive model that affected the chances that they would die or become incapacitated within 5 years. Comprehensive analysis revealed several unique variables that predicted mortality and incapacity. **Poor mental health, poor sensory function and social engagement, and having a broken bone any time after age 45** were all strong markers for future health problems. Conversely, **greater mobility** predicted well-being. **The most vulnerable class, Extensive Multi-morbidity and Frailty, was disproportionately older women of all races, also with low education and few household assets.** Jun. 14, 2016.

[Pediatric Emergency Visits and Short-Term Changes in PM_{2.5} Concentrations in the U.S. State of Georgia](#). Strickland et al., 2016.

CLIMATE CHANGE

Climate Change in Pennsylvania, [2015 Penn State report](#) and [interview](#) with DEP Secretary.

Reducing Outdoor Contaminants in Indoor Spaces

RESEARCH AND DEMONSTRATION continued

ASTHMA

[Five New Sites Join Pay for Success Asthma Intervention Tests](#). Houston joined four other sites in the [Pay For Success](#) / Social Impact Bond program by Green and Healthy Homes, which has partnered with healthcare organizations to reduce asthma triggers in order to improve health, social, and economic outcomes for families. Jul. 2016.

SENSORS

[Monitoring Air Pollution With Moss](#). Ecologists have investigated a type of moss that can be used as a cheap and effective bio-monitor for checking air pollution levels. The [MOSSCLONE](#) method uses devitalized moss clone as passive contaminant sensor. The project developed a way to produce moss on an industrial scale. The project also compared its new moss-based bio-monitoring product to currently available, non-biological air monitoring systems. Jul. 8, 2016.

[Southern Ontario Centre for Atmospheric Aerosol Research](#). SOCAAR at the University of Toronto is an interdisciplinary center for the study of air quality, with a focus on how aerosols impact human health and the environment. Current projects include [portable air quality monitors](#), [mapping clean air cycling routes](#), [air filters](#), and [the indoor microbiome](#). [Seminar videos](#) are also available.

AIR QUALITY

[Traffic Emissions May Pollute 1 in 3 Canadian Homes](#). Evans et al., 2015. Studies of exposure to traffic-related air pollutants, the effect of distance, type and number of roads, high emitting vehicles, mapping of urban air pollution in Canada, and cognitive development of children.

That's it for the July Compendium!

Please send us event information, news, resources, research results for upcoming compendiums. Visit the [ROCIS website](#) for current and past compendiums, as well as the ROCIS white papers, archives from past events, and upcoming webinars. Audio and video recordings from the Feb. 26, ROCIS Stakeholder meeting on the Low Cost Monitoring Project are posted [here](#).

Cheers,
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