

Reducing Outdoor Contaminants In Indoor Spaces

2016 February 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, asthma, indoor particulate matter, multifamily buildings, fossil fuels, energy efficiency, and resilient design. Click [here](#) to sign up for this monthly compendium, 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 ...

EVENTS – REGIONAL AUDIENCE

- ✓ February and beyond: [Various Green Building and Healthy Materials Seminars and Webinars.](#)
- ✓ Feb. 22, 2016. [Clean Power Plan Forum.](#)
- ✓ Feb. 23, 2016. [Pittsburgh as a Resilient City: Briefing.](#)
- ✓ Ending Feb. 26, 2016. [“In the Air: Visualizing What We Breathe.”](#)
- ✓ Feb. 26, 2016. [ROCIS Stakeholder Meeting.](#)
- ✓ Mar. 6, 2016. [The Plan for a Healthier Allegheny.](#)
- ✓ Mar. 17, 2016. [GreenCon.](#)
- ✓ Mar. 31 - Apr. 1, 2016. [Green Schools Conference & Expo.](#)
- ✓ Sep. 21-25, 2017. [Annual North American Passive House Conference.](#) Philadelphia, PA.

EVENTS – NATIONAL AUDIENCE

- ✓ Feb. 18-19, 2016. [Net Positive Energy + Water Conference.](#) San Diego, CA.
- ✓ Feb. 22 - Apr. 3, 2016. [ASHRAE 62.2 Ventilation for Single-Family Dwellings: Online Course.](#) Online.
- ✓ Feb. 25-26, 2016. [4th International Workshop of COST Action TD1105 on Innovations and Challenges for Air Quality Control Sensors.](#) Vienna, Austria.
- ✓ Feb. 28, 2016 Abstracts due. [7th International Conference on Energy and Environment of Residential Buildings.](#) Nov.20-24, 2016, Brisbane, Australia.
- ✓ Mar. 2, 2016. [Ramping up the Market for Zero Energy Buildings.](#) Webinar.
- ✓ Mar. 7 and 10, 2016. [EPA Science Advisory Board Hydraulic Fracturing Research Advisory Panel.](#) Teleconference.
- ✓ Mar. 7, 2016, Abstracts due. [ASHRAE IAQ 2016. Defining IAQ: Policy, Standards and Best Practices.](#) Sept. 12-14, 2016, Alexandria, VA.
- ✓ Mar. 9, 2016. [Childcare: Recent Findings and New Developments in Environmental Health.](#) Webinar.
- ✓ Mar. 15, 2016. [How to Counsel Patients on Preventing Environmental Exposures.](#) Webinar.
- ✓ Mar. 15-16, 2016. [Greenprints.](#) Atlanta, GA.
- ✓ Mar. 31 - Apr 1, 2016. [Green Schools Conference & Expo.](#) Pittsburgh, PA.
- ✓ Apr. 4-7, 2016. [2016 Affordable Comfort Home Performance Conference.](#) Austin, TX.
- ✓ Apr. 4, 2016. Applications due. [Existing Building \(EBIE\) Awards.](#)
- ✓ Apr. 6, 2016. [National Healthy Schools Day.](#)
- ✓ Apr. 13, 2016. [Stress, Chemical/Non-Chemical Exposures: Recent Findings and Developments in Environmental Health.](#) Webinar.
- ✓ May 2-6, 2016. [Functional Materials for Environmental Sensors and Energy Systems \(E-MRS\) Spring Meeting 2016.](#) Lille, France.
- ✓ Jul. 3-8, 2016. [Indoor Air 2016.](#) Ghent, Belgium.
- ✓ Sep. 21-25, 2017. [Annual North American Passive House Conference.](#) Philadelphia, PA.

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EVENTS – NATIONAL AUDIENCE Continued

- ✓ Oct. 9-13, 2016. [International Society of Exposure Science \(ISES\) 2016: Interdisciplinary Approaches for Health and the Environment](#). Utrecht, Netherlands.
- ✓ Feb. 23-25, 2017. [CitiSci2016](#). Raleigh, NC.

REGIONAL NEWS

- ✓ [Philadelphia to Invest in Energy Savings and Solar, Creating Jobs](#). Feb. 8, 2016.
- ✓ [Clairton Coke Put On Notice](#). Jan. 28, 2016.
- ✓ [EPA Missed Thousands of Water Complaints After Telling Public Fracking is Safe](#). Feb. 8, 2016.
- ✓ [Multifamily Retrofit in McKeesport: Builder Shares Tips](#). Feb. 4, 2016.
- ✓ [Cyclists Wonder Why Bike Lanes Were Not Plowed](#). Feb. 3, 2016.
- ✓ [Philly Is Getting Its First Complete Streets Commissioner](#). Feb. 2, 2016.
- ✓ [4th Patient Infected During Mold Outbreak at UPMC Hospital Dies](#). Feb. 7, 2016.

OTHER NEWS

HEALTH

- ✓ [Rats, Roaches, Mold – Poor Conditions Lead to Teacher Sickout, Closure of Most Detroit Schools](#). Jan. 20, 2016.
- ✓ [Smog's Health Effects Persist for Decades, Study Finds](#). Feb. 8, 2016.
- ✓ [Developing Communities With Health in Mind](#). Jan. 14, 2016.

ENERGY EFFICIENCY AND GREEN BUILDINGS

- ✓ [Green Homes Yield Major Resale Premiums in Washington, D.C.](#) Feb. 5, 2016.
- ✓ [DOE is Mapping Home Energy Upgrade Potential](#). April, 2015.
- ✓ [Airtightness in Buildings: Don't Let it Slip Through the Cracks](#). Jan. 29, 2016.

RESILIENT DESIGN

- ✓ [Making Multifamily Affordable Housing More Resilient](#). Dec. 10, 2015.

FOSSIL FUELS

- ✓ [Crude Oil Train to Bay Area: Final EIR is Criticized](#). Feb. 8, 2016.
- ✓ [Train Derailment of Sulfuric Acid Rekindles Safety Fears Along East Bay](#). Jan. 20, 2016.
- ✓ [Multnomah County Passes Unanimous Historic Resolution Opposing Oil Trains and Tesoro Savage Project](#). Jan. 21, 2016.
- ✓ [Fracking will Endanger Our Health in Florida](#). Jan. 27, 2016.
- ✓ [Near-Term Update to Social Cost of Carbon Unwarranted](#). Jan. 26, 2016.
- ✓ [Electric School Bus Pilot Project Launching in Massachusetts](#). Dec. 21, 2015.

RESOURCES

IEQ

- ✓ [Indoor Environmental Issues in Disaster Resilience](#). Persily and Emmerich, 2015.
- ✓ [IOM Workshop on the Health Risks of Indoor Exposure to Particulate Matter](#), Feb. 2016.
- ✓ [HVAC Filtration Research at LBNL](#).
- ✓ [Healthy Schools Spell Success](#). 2015.
- ✓ [Present Status of School Health Ventilation](#). Yaglou, 1956.

HEALTH

- ✓ [Regional Summits on Pediatric Home Asthma Interventions & Reimbursement Opportunities](#). HUD, 2013-2015.
- ✓ [Educating Biomonitoring Participants About their Exposure to Environmental Chemicals: What Does the Science Say?](#) Morello-Frosch, 2015.

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RESOURCES continued

ENERGY EFFICIENCY AND GREEN BUILDING

- ✓ [Building Re-tuning Training Opportunities and Case Studies](#).
- ✓ [DOE Buildings Plan and Logic Models 2016-2020](#).
- ✓ [DOE Building America Technology Roadmap](#).
- ✓ [Case Study: Energy Efficiency Upgrades in Multifamily Housing](#).

CITIZEN SCIENCE

- ✓ [Colorado Outreach Efforts to Study Oil and Gas Development](#). University of Colorado, 2015.

COMMUNITY DEVELOPMENT AND URBAN PLANNING

- ✓ [An Investment in Opportunity: A Bold New Vision for Housing Policy in the US](#). Enterprise Community Partners, Inc., 2016.

AIR QUALITY AND HEALTH MONITORING

- ✓ [Climate Coping Collaborative: Involving Stakeholders for Neighborhood Climate Resiliency Planning](#). Shandas, 2015 presentation.

FOSSIL FUELS

- ✓ [Hydraulic Fracking](#). Physicians for Social Responsibility, 2016.

FUNDING OPPORTUNITIES

- ✓ [Keystone Energy Efficiency Alliance: Energy Efficiency Award for K-12 Schools in PA](#). Due Mar. 4, 2016.
- ✓ [Sierra Health Foundation: Health and Well-being for Northern California](#). Due Mar. 14, 2016.
- ✓ [Robert Wood Johnson Foundation Establishing Awards for Health Equity Heroes](#). Due Mar. 30, 2016.
- ✓ [EPA: Locally Focused Environmental Education Grants](#). Due Apr. 8, 2016.

RESEARCH AND DEMONSTRATION

IEQ

- ✓ [Indoor/Outdoor Relationship of PM2.5 Concentration in Typical Buildings With and Without Air Cleaning in Beijing](#). Deng et al., 2015.
- ✓ [Investigation of the Effectiveness and Failure Rates of Whole-House Mechanical Ventilation Systems in Florida](#). Sonne et al., 2015.
- ✓ [Transdermal Uptake of Diethyl Phthalate and Di\(n-butyl\) Phthalate Directly from Air: Experimental Verification](#). Weschler et al. 2015.

HEALTH

- ✓ [Long-Term Ambient Residential Traffic-Related Exposures and Measurement Error-Adjusted Risk of Incident Lung Cancer in the Netherlands Cohort Study on Diet and Cancer](#). Hart et al., 2015.
- ✓ [Traffic-Related Air Pollution and Otitis Media](#). Brauer et al., 2006.
- ✓ [In-Home Air Pollution is Linked to Respiratory Morbidity in Former Smokers with Chronic Obstructive Pulmonary Disease](#). Hansel et al., 2015.
- ✓ [Impact of Climate Change on the Domestic Indoor Environment and Associated Health Risks in the UK](#). Vardoulakis et al., 2015.

RESILIENT DESIGN AND VULNERABILITY

- ✓ [The Role of Protection Measures and their Interaction in Determining Building Vulnerability and Resilience to Bioterrorism](#). Taylor et al. 2015.
- ✓ [Effects of Climate Change on Residential Infiltration and Air Pollution Exposure](#). Ilacqua et al., 2015.
- ✓ [Mapping Indoor Overheating and Air Pollution Risk Modification Across Great Britain: A Modeling Study](#). Taylor et al. 2016.
- ✓ [Overheating Risk of UK Dwellings Under a Changing Climate](#). Liu and Coley, 2015.

Reducing Outdoor Contaminants In Indoor Spaces

RESEARCH AND DEMONSTRATION

RESILIENT DESIGN AND VULNERABILITY Continued

- ✓ [Modification of Outdoor Heat-Mortality Relationship by Housing Vulnerability to Overheating in England and Wales](#). Milojevic et al., 2015. Abstract.
- ✓ [Prioritizing Cooling Infrastructure Investments for Vulnerable Southwest Populations](#). Chester et al., 2015 presentation.
- ✓ [Impacts of Climate Change on Electric Transmission Capacity and Peak Electricity Load in the United States](#). Bartos et al., 2015 poster and [paper](#).
- ✓ [Vulnerability of Urban Water Systems to Climate Change and Mitigating the Potential for Cascading Failures](#). Bondark et al. 2015 poster.
- ✓ [Predicting the Microbial Exposure Risks in Urban Floods Using GIS, Building Simulation, and Microbial Models](#). Taylor et al., 2013.
- ✓ [New York City Tests Post-Disaster Housing That Stacks Up](#). NY Times, Oct. 13, 2015

SENSORS

- ✓ [A Distributed Network of Low-Cost Continuous Reading Sensors to Measure Spatiotemporal Variations of PM2.5 in Xi'an, China](#). Gao et al., 2015.

ABSTRACTS and LINKS for EVENTS, NEWS, and RESOURCES

EVENTS – REGIONAL AUDIENCE

February and beyond: [Various Green Building and Healthy Materials Seminars and Webinars](#), hosted by the Green Building Association of Pittsburgh (GBA) and others.

Feb. 22, 2016. [Clean Power Plan Forum](#). Pittsburgh. PennEnvironment is hosting a local educational forum on the Clean Power Plan with Tom Schuster (Sierra Club), Neil Donahue (CMU), and Allison Steele (Conservation Consultants).

Feb. 23, 2016. [Pittsburgh as a Resilient City: Briefing](#). Pittsburgh. Grant Ervin, Pittsburgh's chief resilience officer, and Jordan Fischbach, co-director of RAND's Water and Climate Resilience Center, will discuss how the topic of resiliency is changing city planning conversations in Pittsburgh and around the world. Last year, Pittsburgh was selected for the [100 Resilient Cities](#) network, a Rockefeller Foundation program.

Feb. 26, 2016. [ROCIS Stakeholder Meeting](#). 10 AM - 2:30 PM. Insights from & Implications of the Low-Cost Monitoring Project (LCMP). Since October 2015, over 50% of the ROCIS stakeholders have participated in a 3-week cohort to monitor air quality in their homes. Join in exploring the value and applications for low cost monitoring devices to address indoor air quality.

Ending Feb. 26, 2016. ["In the Air: Visualizing What We Breathe,"](#) The exhibit at Pittsburgh Filmmakers in North Oakland attempts to raise our consciousness about the progress we have yet to make.

Mar. 6, 2016. [The Plan for a Healthier Allegheny](#). Dr. Karen Hacker, Director of Allegheny County Health Department, presents the new ["Plan for a Healthier Allegheny"](#) and discusses how all county residents can participate in its implementation. The plan sets forth measurable goals and strategies to achieve sustainable improvements in the public, environmental, and community health of all county residents.

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EVENTS – REGIONAL AUDIENCE Continued

Mar. 17, 2016. [GreenCon](#). Carlisle, PA. USGBC Central Pennsylvania. [Alex Wilson](#), of [BuildingGreen, Inc.](#) and the [Resilient Design Institute](#), will be the keynote speaker. Anna Siefken, Director of [Pittsburgh 2030 District](#), will also be presenting.

Mar. 31 - Apr. 1, 2016. [Green Schools Conference & Expo](#). Pittsburgh, PA. Green cleaning, purchasing, and teaching, plus energy efficiency, are on the program. A Student Summit will be included to educate, empower, and inspire middle and high school students as our next generation of leaders.

Sept. 21-25, 2016. [Annual North American Passive House Conference](#). Philadelphia, PA.

EVENTS – NATIONAL AUDIENCE

Feb. 18-19, 2016. [Net Positive Energy + Water Conference](#). San Diego, CA. The meeting will take an inside look at the bold projects that have achieved dramatic energy performance by integrating smart design and innovative renewable on-site energy generation

Feb. 22 - Apr. 3, 2016. [ASHRAE 62.2 Ventilation for Single-Family Dwellings: Online Course](#). This comprehensive, hands-on training course for professionals will teach you best practices for calculating ventilation requirements, optimizing equipment selection, and understanding where the standards are headed.

Feb. 25-26, 2016. [4th International Workshop of COST Action TD1105 on Innovations and Challenges for Air Quality Control Sensors](#). Vienna, Austria. [Additional workshops](#) on air sensors are also planned by the EUNetAir program for 2016.

Feb. 28, 2016 abstracts due. [7th International Conference on Energy and Environment of Residential Buildings](#). Brisbane, Australia. November 20-24, 2016. “Healthy Buildings” is the conference theme. Topics will include sustainable design and construction, indoor environment, neighborhood planning, modeling, post-occupancy evaluation, and valuation, marketing and finance.

Mar. 2, 2016 webinar. [Ramping up the Market for Zero Energy Buildings](#). DOE and state energy officials will address the current state of zero energy buildings in the marketplace and provide a roadmap for participants to develop and implement a zero energy building program.

Mar. 7 and 10, 2016 teleconference. [EPA Science Advisory Board Hydraulic Fracturing Research Advisory Panel](#). Public comments on the June 2015 EPA draft report can also be submitted online. The SAB submitted individual comments earlier this year.

Mar. 7, 2016 abstracts due. [ASHRAE IAQ 2016. Defining IAQ: Policy, Standards and Best Practices](#). Sept. 12-14, 2016, Alexandria, VA. The program will include internationally acclaimed keynote speakers, original peer reviewed papers, the latest in IEQ control, plus workshops and panel discussion. The conference will guide the participants about what works and what really doesn't work when tackling major improvements in IAQ.

Mar. 9, 2016 webinar. [Childcare: Recent Findings and New Developments in Environmental Health](#). NIEHS and EPA.

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EVENTS – NATIONAL AUDIENCE Continued

Mar. 15, 2016 webinar. [How to Counsel Patients on Preventing Environmental Exposures](#). Physicians for Social Responsibility.

Mar. 15-16, 2016. [Greenprints](#). Atlanta, GA. Sessions on affordable and low-income housing, energy efficiency, building products, communities, and organizational management and leadership.

Mar. 31 - Apr 1, 2016. [Green Schools Conference & Expo](#). Pittsburgh, PA. Green cleaning, purchasing, and teaching, plus energy efficiency, are on the program. A Student Summit will be included to educate, empower, and inspire middle and high school students as our next generation of leaders.

Apr. 4-7, 2016. [2016 Affordable Comfort Home Performance Conference](#). Austin, TX. One of the premier conferences on energy efficiency in existing and new homes, for practitioners, researchers, and policy experts. Health and safety topics will also be addressed, including outdoor pollutant intrusion. [Travel scholarships](#) are available for 75 contractors.

Apr. 4, 2016 applications due. [Existing Building \(EBIE\) Awards](#). The national juried competition recognizes improved environmental performance in existing buildings among building operators, facilities managers, owners, engineers, retro-commissioning agents and other professionals. Focus areas include energy, water, operations, materials use, lighting, portfolio-wide improvements, and tenant engagement.

Apr. 6, 2016. [National Healthy Schools Day](#). Whether you are at the beginning stages of investigating school environments or have an established Indoor Air/Environmental Quality program, you are invited you to host a local activity that educates others and celebrates your school's successes.

Apr. 13, 2016 webinar. [Stress, Chemical/Non-Chemical Exposures: Recent Findings and Developments in Environmental Health](#). NIEHS and EPA.

May 2-6, 2016. [Functional Materials for Environmental Sensors and Energy Systems \(E-MRS\) Spring Meeting 2016](#). Lille, France. Current R&D Various pollutant sensing technologies will be addressed, and a special issue will be produced for a scientific journal.

Jul. 3-8, 2016. [Indoor Air 2016](#). Ghent, Belgium. The premier international scientific conference on IEQ. Short courses and social media discussions will be included.

Sept. 21-25, 2016. [Annual North American Passive House Conference](#). Philadelphia, PA.

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, and health risk assessment, policy, emerging chemicals, and science education.

Feb. 23-25, 2017. [CitiSci2016](#). Raleigh, NC. The second international conference on citizen science.

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REGIONAL NEWS

[Philadelphia to Invest in Energy Savings and Solar, Creating Jobs](#). Feb. 8, 2016. The Philadelphia Energy Campaign plans to leverage \$1 billion dollars of private and public financing to expand energy efficiency programs and solar energy in Philadelphia. This [10-year investment](#) will target low-income communities, public schools, small businesses and municipal buildings. In the process, it will generate thousands local clean energy jobs and return \$200 million of savings to the economy.

[Clairton Coke Put On Notice](#). Jan. 28, 2016. PennFuture issued a 60-day Notice of Intent to Sue to U.S. Steel's Clairton Coke Works, the largest coke works in the nation. The lawsuit addresses thousands of violations of combustion stack opacity limits and other regulations that the coke works is subject to, recorded from 1/1/2012 onward.

[EPA Missed Thousands of Water Complaints After Telling Public Fracking is Safe](#). Feb. 8, 2016. In September 2015, Public Herald published [a groundbreaking report](#) about the release of thousands of citizen complaints related to water contamination from unconventional oil and gas mining – or 'fracking' – in Pennsylvania, and a massive cover-up on the scale and scope of drinking water pollution across the state. (see the October 2015 Compendium for related articles).

[Multifamily Retrofit in McKeesport: Builder Shares Tips](#). Feb. 4, 2016. A former YMCA into the 84-unit McKeesport Downtown Housing for low income and homeless persons – the first retrofit of this scale to be designed to meet [Passive House Standards](#) in the U.S. The [Thoughtful Balance design team](#) used an integrated design process and teased out issues that were important to the owner, to the people maintaining the building, and to the residents themselves. By using an allocation of low-income housing [tax credits as well as public and philanthropic support](#), ACTION-Housing was able to refurbish the \$10.5 million project to make it more environmentally friendly.

[Cyclists Wonder Why Bike Lanes Were Not Plowed](#). Feb. 3, 2016. BikePGH believed, priorities or not, the city had the ability to clear snow from bike lanes and other routes, given the amount of time since the snow had stopped falling. 311 calls to the city were necessary to get bike lanes cleared.

[Philly Is Getting Its First Complete Streets Commissioner](#). Feb. 2, 2016. The commissioner will think about and look at all transportation modes, and how to make them safer and work better for everyone. They will also implement the "dig-once" policy for utility repairs under streets.

[4th Patient Infected During Mold Outbreak at UPMC Hospital Dies](#). Feb. 7, 2016. CDC could not find the mold source but recommended positive pressure, and extensive cleaning of system, and other measures. [CDC issues preliminary findings into UPMC mold cases](#). The CDC report is due this summer.

OTHER NEWS

HEALTH

[Rats, Roaches, Mold – Poor Conditions Lead to Teacher Sickout, Closure of Most Detroit Schools](#). Jan. 20, 2016. More than 85 of Detroit's approximately 100 public schools were closed Wednesday as teachers staged a sickout to protest the system's overcrowded classrooms, broken finances and crumbling facilities. The Detroit mayor said that city officials would inspect every building by April, and established a way for parents, teachers and students to report unsafe and unhealthy conditions in schools.

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OTHER NEWS

HEALTH Continued

[Smog's Health Effects Persist for Decades, Study Finds](#). Feb. 8, 2016. Air pollution can increase the risk of premature death from lung or heart disease, even decades later, one of the longest running air pollution studies suggests. But more recent air pollution exposure made a bigger difference on health.

[Developing Communities With Health in Mind](#). Jan. 14, 2016. Success stories of healthy buildings, sites, and communities for low income families in Austin, Texas are described. A health insurance firm has become a supporter.

ENERGY EFFICIENCY AND GREEN BUILDINGS

[Green Homes Yield Major Resale Premiums in Washington, D.C.](#) Feb. 5, 2016. An [appraiser-led study](#) calculated that buyers were willing to pay more for green features, from just over \$10,000 to over \$50,000 more, generating premiums as high as 7.7 percent. When renewable energy-generating technologies such as solar were incorporated into the home, that resale premium climbed even higher. Current marketing barriers were also assessed.

[DOE is Mapping Home Energy Upgrade Potential](#). April, 2015. DOE is developing an application to map potential carbon reduction and best energy upgrades for US homes, by location and home vintage. Building and appliance characteristics are included in the model. [Preliminary maps](#) are available for air sealing, heat pump water heater, low-E window, and attic insulation. The next project meeting is in April, and the beta version is due by next September.

[Airtightness in Buildings: Don't Let it Slip Through the Cracks](#). Jan. 29, 2016. RMI's new Innovation Center in Basalt, CO achieved one of the lowest air leakage values recorded for any building in the U.S.— 0.36 ACH@₅₀ Pa. Aggressive load reduction allowed significant reductions in space and costs for HVAC equipment. Controlled, reliable ventilation also helps meet durability goals by preventing condensation inside of the envelope, which in turn can cause rot.

RESILIENT DESIGN

[Making Multifamily Affordable Housing More Resilient](#). Dec. 10, 2015. In-depth assessments were done of 58 storm-damaged multifamily affordable housing buildings in New York City and the surrounding region. The Enterprise Green Communities Criteria (Rating System) was updated to address resilience directly. A manual, toolkit, and training videos were produced for [retrofitting affordable and resilient housing](#).

FOSSIL FUELS

[Crude Oil Train to Bay Area: Final EIR is Criticized](#). Feb. 8, 2016. Citizens, upstream communities, and environmental groups requested additional mitigation measures for a proposed crude oil train to a Benicia, CA refinery. A planning commissioner grilled city staff, who could not defend the report. A second meeting was scheduled. [San Luis Obispo](#) is also going through a similar review process.

[Train Derailment of Sulfuric Acid Rekindles Safety Fears Along East Bay](#). Jan. 20, 2016. Three tank cars carrying a hazardous liquid derailed on train tracks under the Benicia Bridge, and although there were no reports of leaks, the incident rekindled fears about the potential dangers of derailments along the East Bay's industrial and refinery belt. This incident also raises the issue of local control over railroad activities. In the U.S. between Jan. 2012 and October 2015, an average of more than three derailments per day were reported in the United States.

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OTHER NEWS

FOSSIL FUELS

[Multnomah County Passes Unanimous Historic Resolution Opposing Oil Trains and Tesoro Savage Project](#). Jan. 21, 2016. Multnomah County, Oregon is the first and largest county to officially oppose oil-by-rail and the proposed Tesoro Savage oil terminal. The resolution focused on potential public safety risks to schools, homes, and minority communities near rail routes for crude oil trains. At 360,000 barrels per day, Tesoro Savage's Vancouver project would ship almost half as much crude oil as the entire Keystone XL Pipeline. It is the largest proposal of its kind in North America.

[Fracking Will Endanger Our Health in Florida](#). Jan. 27, 2016. Physician opposes SB 318, which calls for a million dollar study to determine if fracking can be safely done in Florida. Opposition is based on impacts on environmental quality and water resources for agriculture and potable use.

[Near-Term Update to Social Cost of Carbon Unwarranted](#). Jan. 26, 2016. Interagency Working Group reviewed issues such as uncertainty, non-linearity, joint probabilities, and discount rates in estimating the social benefits of reducing carbon emissions, such as reduced health and economic impacts. Estimates are used by federal agencies in developing regulations. IEQ was not addressed. No changes in the cost estimates were recommended, but Phase 2 will examine a more comprehensive update.

[Electric School Bus Pilot Project Launching in Massachusetts](#). Dec. 21, 2015. The Massachusetts Department of Energy Resources (DOER) is launching a pilot project to test the feasibility of electric school bus use in four school districts. Vermont Energy Investment Corporation will analyze the economic viability of electric school bus use in the state. The project can potentially advance the utilization of electric buses across Eastern North America.

RESOURCES

IEQ

[Indoor Environmental Issues in Disaster Resilience](#). Persily and Emmerich, 2015. NIST Technical Note 1882. Impacts during and after disasters are reviewed for their impact on IEQ, including impacts from climate change. The topic has received growing interest but is not generally not fully appreciated in many discussions or programs. Existing knowledge needs to be integrated into more comprehensive community resilience programs. Important research gaps for various types of disasters, and several topics for potential standards development, were identified.

[IOM Workshop on the Health Risks of Indoor Exposure to Particulate Matter](#), Feb. 2016. The workshop featured presentations and discussions regarding the ailments that are most affected by particular matter and the attributes of the exposures that are of greatest concern, exposure modifiers, vulnerable populations, exposure assessment, risk management, and gaps in the science. Presentations and videos will be posted by late February. A workshop summary report will be produced later this year.

[HVAC Filtration Research at LBNL](#). Studies of energy performance, air flow resistance and fouling of different air filters in residential central air systems.

[Healthy Schools Spell Success](#). Environmental Health Policy Institute, 2015. Summary of indoor and outdoor air quality and water quality hazards (arsenic) at schools.

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RESOURCES

IEQ Continued

[Present Status of School Health Ventilation](#). Yaglou, 1956. From a pioneer in ventilation and thermal comfort standards, an interesting read on the history of single story schools, suburban sprawl, HVAC systems, and overheating issues.

HEALTH

[Regional Summits on Pediatric Home Asthma Interventions & Reimbursement Opportunities](#). HUD, 2013-2015. Presentations on federal, state, and local program and resources for home asthma intervention in Philadelphia, New York, Baltimore, and Kansas City. IAQ and intervention cost info are included.

[Educating Biomonitoring Participants About their Exposure to Environmental Chemicals: What Does the Science Say?](#) Morello-Frosch, 2015.

ENERGY EFFICIENCY AND GREEN BUILDING

[Building Re-tuning Training Opportunities and Case Studies](#). As much as 20 percent of energy consumed in commercial buildings is due to inefficient operations. Building re-tuning training is a program developed by [Pacific Northwest National Laboratories \(PNNL\)](#), with funding from the [U.S. Department of Energy \(DOE\)](#), to educate building operators, facility engineers and the service personnel in commercial buildings about how to find and fix these energy-wasting practices. Training opportunities are available in-person and online.

[DOE Buildings Plan and Logic Models 2016-2020](#). This document provides a broad overview of the energy use in the buildings sector, and DOE's strategies and goals for achieving significant energy savings. A [summary presentation](#) and [2015 program highlights](#) are available.

[DOE Building America Technology Roadmap](#). DOE has developed an R&D plan to safely reduce energy use in homes without impacting health or durability. The plan for 2010-2020 focuses on 1) high efficiency, low moisture thermal envelopes, 2) optimized low energy, low humidity HVAC systems, and 3) smarter IAQ solutions through ventilation and source control. The eventual outcomes will include best practices guidance and improved building specifications. [More information](#) is available.

[Case Study: Energy Efficiency Upgrades in Multifamily Housing](#). DOE Better Buildings Residential Network. This case study addresses multifamily energy upgrade experiences by two members of the network—Elevate Energy (Chicago) and the International Center for Appropriate and Sustainable Technology (ICAST in Colorado, Texas, and New Mexico). Energy use was reduced by about 20-40%, partly due to tenant engagement.

CITIZEN SCIENCE

[Colorado Outreach Efforts to Study Oil and Gas Development](#). University of Colorado, 2015. The AirWaterGas Sustainability Research Network (SRN) is building partnerships with community organizations and K-12 schools to investigate and integrate research on the environmental, economic and social tradeoffs of oil and gas development into policy and regulations. Science teacher development workshops are held in the summer. Several communities are using cost-effective, portable air quality monitors that were developed by the University.

Reducing Outdoor Contaminants In Indoor Spaces

RESOURCES

COMMUNITY DEVELOPMENT AND URBAN PLANNING

[An Investment in Opportunity: A Bold New Vision for Housing Policy in the US](#). Enterprise Community Partners, Inc., 2016. This report lays out Enterprise's long-term policy platform, which offers a set of federal, state and local policy changes to address America's growing rental housing crisis and create communities of opportunity across the country.

AIR QUALITY AND HEALTH MONITORING

[Climate Coping Collaborative: Involving Stakeholders for Neighborhood Climate Resiliency Planning](#). Shandas, 2015 presentation. Mapping of outdoor NO2 and urban heat in Portland, OR.

FOSSIL FUELS

[Hydraulic Fracking](#). Physicians for Social Responsibility, 2016. Various resources on health and environmental impacts of fracking.

FUNDING OPPORTUNITIES and RESEARCH AND DEMONSTRATION (see list and links on pages 3 & 4)

That's it for the February Compendium!

Please send us event information, news, resources, research results for next month's compendium. Visit the [ROCIS website](#) for current and past compendiums, as well as the ROCIS white papers, archives from meetings and webinars, and information on the upcoming ROCIS Stakeholder Meeting, scheduled for February 26, 2016.

Cheers,
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