
Reducing Outdoor Contaminants in Indoor Spaces

2016 March 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, environmental justice, fossil fuels, environmental health, 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

- ✓ March and beyond: [Various Green Building and Healthy Materials seminars and webinars.](#)
- ✓ Mar. 6, 2016. [The Plan for a Healthier Allegheny.](#)
- ✓ Mar. 8 and beyond, 2016 webinar. [New York City Local Laws 87 and 88.](#)
- ✓ Mar. 29 and beyond, webinars. [Residential energy efficiency webinars.](#)
- ✓ Apr. 6, 2016. ["Economic Inequality--Why should PSR Care?"](#)

EVENTS – NATIONAL AUDIENCE

- ✓ Mar. 9-12, 2016. [Toxic Substances in the Workplace and the Environment and Updates in Occupational and Environmental Medicine.](#) UC San Francisco.
- ✓ Mar. 10, 2016 and beyond, conference calls. [DOE Better Buildings Residential Network.](#)
- ✓ Mar. 15, 2016 webinar. [How to counsel patients on preventing environmental exposures.](#)
- ✓ Mar. 15-16, 2016. [Greenprints.](#) Atlanta, GA.
- ✓ Mar. 17, 2016 webinar. [Energy Efficiency as a Resource: ACEEE 2015 Highlights.](#)
- ✓ Mar. 22 and beyond, 2016, training webinar. [EPA's Real-Time Air Mapping Tool \(RETIGO\).](#)
- ✓ Mar. 24, 2016 webinar. [Reducing In-Home Exposure to Air Pollution.](#)
- ✓ Mar. 31 - Apr 1, 2016. [Green Schools Conference & Expo.](#) Pittsburgh, PA.
- ✓ Apr. 4, 2016. Applications due. [Existing Building \(EBIE\) Awards.](#)
- ✓ Apr. 4-7, 2016. [2016 Affordable Comfort Home Performance Conference.](#) Austin, TX.
- ✓ Apr. 6, 2016. [National Healthy Schools Day.](#)
- ✓ Apr. 8, 2016 abstracts due. [Behavior, Energy & Climate Change Conference 2016.](#) Oct. 20-22. Baltimore, MD.
- ✓ Apr. 13, 2016 webinar. [Stress, Chemical/Non-Chemical Exposures: Recent Findings and Developments in Environmental Health.](#)
- ✓ Apr. 11, 2016 registration ends. [Health Effects Institute 2016 Conference.](#) May 1-3. Denver, CO.
- ✓ Apr. 19, 2016 webinar. [Endocrine-Disrupting Chemicals - the latest research and how to counsel patients on reducing day to day exposures.](#)
- ✓ May 2-6, 2015. [Functional Materials for Environmental Sensors and Energy Systems \(E-MRS\) Spring Meeting 2016.](#) Lille, France.
- ✓ Jun. 28-Jul. 2, 2016. [Student Climate & Conservation Congress.](#) Shepherdstown, WV.
- ✓ Jul. 3-8, 2016. [Indoor Air 2016.](#) Ghent, Belgium.
- ✓ Aug. 21-26, 2016. [2016 ACEEE Summer Study on Energy Efficiency in Buildings.](#) Pacific Grove, CA.
- ✓ Aug. 29-31, 2016. Austin, TX.
- ✓ Sep. 21-25, 2016. [Annual North American Passive House Conference.](#) Philadelphia, PA.
- ✓ 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.
- ✓ Feb. 23-25, 2017. [CitiSci2016.](#) Raleigh, NC. The second international conference on citizen science.

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REGIONAL NEWS

IEQ

- ✓ [Tab for fixing Philadelphia School District facilities: \\$5 billion](#). Feb. 2, 2016.

AIR POLLUTION

- ✓ [Lawrenceville residents ask Allegheny County Health Department to strengthen steel foundry permit](#). Mar. 3, 2016.
- ✓ [CMU proposes to measure, map, and model Mon Valley air pollution](#). Feb. 10, 2016.
- ✓ [Report says oil-train routes contribute to 'environmental racism' in PA](#). Feb. 26, 2016.

FOSSIL FUELS

- ✓ [Health researchers say fracking too close to schools, residences](#). Mar. 4, 2016.
- ✓ [Calls to increase distance between shale gas well pads and people](#). Mar. 2, 2016.
- ✓ [Ethanol train derailed in Ripley, NY; homes evacuated](#). Mar. 2, 2016.
- ✓ [Shale & Public Health: A conversation that's not fading away](#). Dec. 17, 2015
- ✓ [Oil Trains 2015: Community Risks & Solutions Conference in Pittsburgh](#). Dec. 3, 2015

ENVIRONMENTAL JUSTICE

- ✓ [670,000 Philadelphians Live In Economically Distressed Areas](#) Mar. 1, 2016.

OTHER NEWS

IEQ

- ✓ [Flint Is in the News, but Lead Poisoning Is Even Worse in Cleveland](#). Mar. 3, 2016.
- ✓ [Some 3D Printers Emitting Harmful Particles – IIT Study](#). Feb. 25, 2016.
- ✓ [CDC underestimated cancer risk from certain flooring; company shares sink](#). Feb. 22, 2016.
- ✓ [Legionnaires' Outbreak in Flint Was Met With Silence](#). Feb. 22, 2016.
- ✓ [Scented candles and air fresheners 'are adding to pollution that kills 40,000 people a year in UK](#). Feb. 21, 2016.
- ✓ [El Marino, CA school pilot tests air cleaning](#). Nov. 8, 2015.

HEALTH AND AIR POLLUTION

- ✓ [Traffic PAH exposure linked to breast cancer](#). Mar. 16, 2016.
- ✓ [Non-toxic nanoparticle induced oxidative stress](#). Mar. 2016.
- ✓ [Chronic air pollution associated with increased blood pressure](#). Mar. 2016.
- ✓ [Study sheds light on lower birth weight associated with PFAS](#). Mar. 2016.
- ✓ [Portland, OR air among worst in nation](#). Mar. 2, 2016.
- ✓ [Cash for commuter cyclists in polluted Milan](#). Feb. 29, 2016.
- ✓ [Air pollution from energy industry costs \\$130 billion a year](#). Feb. 23, 2016.
- ✓ [295,000 US deaths may be prevented by 2030 if greenhouse gases cut](#). Feb. 22, 2016.
- ✓ [Rats gain weight after breathing Beijing's air for 3 weeks](#). Feb. 19, 2016.
- ✓ [Wood-burning Stoves Could Be Harming Your Health](#). Feb. 8, 2016.
- ✓ [Wood Pellet Offgassing: Simple Problem, Simple Solution?](#) Jan. 25, 2016.
- ✓ [Court orders EPA to stop letting polluters off the financial hook for industrial contamination](#). Jan. 29, 2016.
- ✓ [Bay Area to ban wood-burning heating devices in new homes](#). Oct. 21, 2016.

ENVIRONMENTAL JUSTICE

- ✓ [Poverty widens gap in asthma and allergy care](#). Mar. 7, 2016.
- ✓ [Climate-change adaptations tied to protecting property, rather than vulnerable people](#). Mar. 3, 2016.
- ✓ [50 million Americans in distressed communities](#). Feb. 29, 2016.
- ✓ [Governor Brown Jr. proposes a \\$177 M to cleanup at Exide battery plant](#). Feb. 27, 2016.
- ✓ [Baby Booster Initiative in Portland to address newborn's health and housing](#). Feb. 22, 2016.

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OTHER NEWS ENVIRONMENTAL JUSTICE (continued)

- ✓ [Poor, minorities carry the burden of frack waste in South Texas](#). Feb. 3, 2016.
- ✓ [Civil rights probe of excess burden on poor from coal-fired energy waste](#). Jan. 14, 2016.

ENERGY EFFICIENCY AND GREEN BUILDINGS

- ✓ [How to tell your sustainability story, from GreenBiz 16](#). Mar. 3, 2016.
- ✓ [Low-Cost Virtual HVAC Sensors Prototyped](#). Feb. 11, 2016.
- ✓ [Sacramento Has the Most Net-Zero Buildings of Any U.S. City \(Davis is 2nd\)](#). Jan. 13, 2016.

RESILIENT DESIGN

- ✓ [New EcoDistricts Protocol Aims for Green Building at Scale](#). Mar. 2016.
- ✓ [Newest homes built to stand up to Mother Nature's fiercest outbursts](#). Feb. 29, 2016.
- ✓ [What makes a city resilient? Social cohesion and other factors studied](#). Jan. 27, 2016.

FOSSIL FUELS

- ✓ [Oregon ups renewable energy, goes coal free](#). Mar. 4, 2016.
- ✓ [Inspector General Cites Failure of Federal Regulators on Oil Train Safety](#). Mar. 2, 2016.
- ✓ [Quebec Seeks Injunction on TransCanada's Energy East Pipeline](#). Mar. 1, 2016.
- ✓ [Why Science Teachers Are Struggling With Climate Change](#). Feb. 22, 2016.
- ✓ [Benicia Blocks Oil-By-Rail Plan](#). Feb. 12, 2016.

SENSORS

- ✓ [Pollutant & pollen sensor network may help people better cope with pollution](#). Mar. 8, 2016.
- ✓ [EPA Air Sensor Program and Real Time Data Viewer for citizen science](#). 2016.

RESOURCES

IEQ

- ✓ [IOM Indoor PM Workshop](#).
- ✓ [Best Practices for Reducing Near-Road Air Pollution Exposure at Schools. Air Cleaners for Removal of Odorous Compounds Associated with the Aliso Canyon Natural Gas Leak](#). Feb. 2, 2016.
- ✓ [Weatherization and Indoor Air Quality: Measured Impacts in Single-family Homes under the Weatherization Assistance Program](#). Pigg et al., 2014.
- ✓ [DOE Zero Energy Ready Homes webinars](#).
- ✓ [Indoor Environment Research Group, Drexel University](#).
- ✓ [Climate Change Vulnerability of Buildings, Power System, and People](#).

ENVIRONMENTAL HEALTH

- ✓ [Every breath we take: the lifelong impact air pollution](#). Feb. 23, 2016.
- ✓ [Vision 2020: HEI Annual Report 2015](#).
- ✓ [Synthetic Turf Studies](#).

ENERGY EFFICIENCY AND GREEN BUILDING

- ✓ [QUALICheck Project](#).
- ✓ [Cap and Trade Benefits for Disadvantaged Communities in California](#).
- ✓ [Best Practices for Energy Efficient Buildings](#).

COMMUNITY DEVELOPMENT AND URBAN PLANNING

- ✓ [Creating Aging-Friendly Communities](#).

AIR POLLUTION MONITORING

- ✓ [Neighborhood-Scale Spatial Models of Diesel Exhaust Concentration Profile Using 1-Nitropyrene and Other Nitroarenes](#).

FOSSIL FUELS

- ✓ [Pipeline spills of Diluted Bitumen: A Comparative Study of Environmental Fate, Effects, & Response](#).
- ✓ [Air Pollution and Health Research at VTI](#) (Swedish National Road and Transport Research Institute).
- ✓ Studies of air pollution near rail lines. [Jaffe Research Group](#), University of Washington.

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FUNDING OPPORTUNITIES

- ✓ CA Strategic Growth Council: [GHG Reduction in Affordable Housing and Sustainable Communities](#). Due Mar. 16, 2016.
- ✓ [DOE: Buildings Energy Efficiency Frontiers and Innovation Technologies \(BENEFIT\) 2016, Funding Opportunity](#). Webinar 3/17/16. Due Apr. 19, 2016.
- ✓ [Robert Woods Johnson Foundation Establishing Awards for Health Equity Heroes](#). Due Mar. 30, 2016.
- ✓ [EPA: Locally Focused Environmental Education Grants](#). Due Apr. 8, 2016.
- ✓ [DOE: Commercial Buildings and Energy Code Field Studies](#). Due Apr. 11, 2016.
- ✓ [EPA: Clean Diesel Grants](#). Due Apr. 26, 2016.
- ✓ [Diesel and Alternative Fuel Grants in Pittsburgh, PA area](#). Multiple Deadlines in April 2016.

RESEARCH AND DEMONSTRATION

IEQ

- ✓ [Indoor Air 2014 keynote papers](#). Various topics.
- ✓ [Removal of polycyclic aromatic hydrocarbons and genotoxic compounds in urban air using air filter materials for mechanical ventilation in buildings](#). Sadiktsis, et al., 2016.
- ✓ [Impact of residential building regulations on reducing indoor exposures to outdoor PM2.5 in Toronto](#). Zuraima and Tan, 2015.
- ✓ [Perceptions in the U.S. building industry of the benefits and costs of improving indoor air quality](#). Hamilton et al., 2015.
- ✓ [Economic, Environmental and Health Implications of Enhanced Ventilation in Office Buildings](#). MacNaughton et al., 2015.
- ✓ [School children's exposure to ultrafine particles: a cross-sectional study in rural and urban sites](#). Madureira, et al., 2015. COST TD-1105 workshop presentation.
- ✓ [Using portable particle sizing instrumentation to rapidly measure the penetration of fine and ultrafine particles in unoccupied residences](#). Zhao & Stephens, 2016.
- ✓ [Semi-volatile organic compounds in the air and dust of 30 French schools: a pilot study](#). Raffy, et al., 2016.
- ✓ [Potentially harmful secondary metabolites produced by indoor *Chaetomium* species on artificially and naturally contaminated building materials](#). Dosen et al., 2016.
- ✓ [Effects of exposure to carbon dioxide and bioeffluents on perceived air quality, self-assessed acute health symptoms, and cognitive performance](#). Zhang et al., 2016.
- ✓ [Physiological responses during exposure to carbon dioxide and bioeffluents at levels typically occurring indoors](#). Zhang et al., 2016.
- ✓ [Health benefits and costs of filtration interventions that reduce indoor exposure to PM2.5 during wildfires](#). Fisk and Chan, 2016.
- ✓ [Formaldehyde and acetaldehyde exposure and risk characterization in California early childhood education environments](#). Bradman et al., 2016.

ENVIRONMENTAL HEALTH

- ✓ [PAH metabolites in women, children, and miners](#). Presentations on current research studies. California Biomonitoring Program, March 3, 2016.
- ✓ [Inhaled Steroids Exacerbate Pollution's Effect on Asthma](#). Ierodiakonou, et al. 2016.
- ✓ Completed and active studies. [Pollutant Lab](#), Vancouver General Hospital and UBC.
- ✓ [Gene by Environment Investigation of Incident Lung Cancer Risk in African-Americans](#). David et al., 2016.

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RESEARCH AND DEMONSTRATION ENVIRONMENTAL HEALTH (continued)

- ✓ [Preterm birth and air pollution: Critical windows of exposure for women with asthma](#). Mendola et al., in press.
- ✓ [Venting for Health](#). NCHH, Steven Winter Associates, and HUD.
- ✓ [Short-term exposure to traffic-related air pollution and daily mortality in London, UK](#). Atkinson et al., 2016.
- ✓ [Impact of traffic-related air pollution on acute changes in cardiac autonomic modulation during rest and physical activity: a cross-over study](#). Cole-Hunter et al., 2016.
- ✓ [Nrf2-related gene expression and exposure to traffic-related air pollution in elderly subjects with cardiovascular disease: An exploratory panel study](#). Wittkopp et al., 2016.
- ✓ [Prenatal air pollution exposure induces sexually dimorphic fetal programming of metabolic and neuroinflammatory outcomes in adult offspring](#). Zhang et al., 2014.

ENERGY EFFICIENCY

- ✓ [Residential Energy Code Field Study](#). DOE, 2016.

RESILIENT DESIGN AND VULNERABILITY

- ✓ [An update of the UK's design summer years: Probabilistic design summer years for enhanced overheating risk analysis in building design](#). Eames, 2016.
- ✓ [Review on urban vegetation and particle air pollution – Deposition and dispersion](#). Janhäll, 2015.
- ✓ [Extreme heat adaptation plan and cures for "petroolism" in Quebec](#). Gosselin, 2013.

ABSTRACTS AND LINKS (for the above items)

EVENTS – REGIONAL AUDIENCE

March and beyond: [Various Green Building and Healthy Materials seminars and webinars](#), hosted by the Green Building Association of Pittsburgh (GBA) and others.

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.

Mar. 8 and beyond, 2016 webinar. [New York City Local Laws 87 and 88](#), requiring energy audits and retrocommissioning every 10 years, and lighting upgrades and sub-meters for larger commercial buildings.

Mar. 29 and beyond, webinars. [Residential energy efficiency webinars](#). Penn Energy Codes.

Apr. 6, 2016. ["Economic Inequality--Why should PSR Care?"](#) Dr. Bill Davidson presentation Physicians for Social Responsibility (PSR). Harrisburg, PA.

EVENTS – NATIONAL AUDIENCE

Mar. 9-12, 2016. [Toxic Substances in the Workplace and the Environment and Updates in Occupational and Environmental Medicine](#). UC San Francisco. This is course provides reviews and updates for occupational and environmental health professionals and persons from other health-related disciplines.

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EVENTS – NATIONAL AUDIENCE (continued)

Mar. 10, 2016 and beyond, conference calls. Various energy efficiency topics. [DOE Better Buildings Residential Network](#).

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. 17, 2016 webinar. [Energy Efficiency as a Resource: ACEEE 2015 Highlights](#).

March 22 and beyond, 2016, training webinar. EPA's Real-Time Air Mapping Tool (RETIGO). RETIGO is a free web-based tool designed to make it easier to explore air monitoring field data on map and graph interfaces, particularly complex data collected with portable air instruments while walking, biking, or driving. Register by contacting retigo@epa.gov.

Mar. 24, 2016 webinar. [Reducing In-Home Exposure to Air Pollution](#). Brett Singer, LBNL. Results of CARB-funded study of air cleaning and ventilation strategies in homes in a test home near a freeway.

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, 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. 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 and climate change.

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. 8, 2016 abstracts due. [Behavior, Energy & Climate Change Conference 2016](#). Oct. 20-22. Baltimore, MD.

Apr. 11, 2016 registration ends. [Health Effects Institute 2016 Annual Conference](#). **May 1-3.** Denver, CO. Topics include air quality, health, climate change, and interactions of traffic pollution, noise, and socioeconomic status.

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EVENTS – NATIONAL AUDIENCE (continued)

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

Apr. 19, 2016 webinar. [Endocrine-Disrupting Chemicals - the latest research and how to counsel patients on reducing day to day exposures](#). Train the trainer, part 2. PSR.

May 2-6, 2015. [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.

Jun. 28 - Jul. 2, 2016. [Student Climate & Conservation Congress](#). Shepherdstown, WV. Applications due March 15 and beyond for new students.

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.

Aug. 21-26, 2016. [2016 ACEEE Summer Study on Energy Efficiency in Buildings](#). Pacific Grove, CA.

Aug. 29-31, 2016. GHHI Executive Leadership Institute. Austin, TX.

Sep. 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.

NEWS (see links above)

RESOURCES

IEQ

[IOM Indoor PM Workshop](#). Videos and presentations from February 2016 workshop. Workshop summary will be available this summer.

[Best Practices for Reducing Near-Road Air Pollution Exposure at Schools](#). EPA Nov. 2015 report and related information.

[Air Cleaners for Removal of Odorous Compounds Associated with the Aliso Canyon Natural Gas Leak](#). California Air Resources Board (CARB), Feb. 2, 2016. Background information on portable air cleaner performance and selection, and a list of CARB-approved air cleaners.

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RESOURCES IEQ (continued)

[Weatherization and Indoor Air Quality: Measured Impacts in Single-family Homes under the Weatherization Assistance Program](#). Pigg et al., 2014. Oak Ridge National Laboratory, 2014.

[DOE Zero Energy Ready Homes webinars](#). Webinar videos and slides on topics such as air tight enclosures, moisture control, ventilation, filtration, and HVAC. [Getting Enclosures Right in Zero Energy Ready Homes](#) by Joe Lstiburek was the most recent event.

[Indoor Environment Research Group, Drexel University](#), Philadelphia, PA. Indoor aerosol chemistry and mitigation, sustainable ventilation, and indoor microbiome research.

[Climate Change Vulnerability of Buildings, Power System, and People](#). Chester et al., 2015. Mapping and assessment of building types, indoor thermal conditions, power system vulnerabilities, mobility, and populations vulnerable to extreme heat in Phoenix, AZ and Los Angeles, CA.

ENVIRONMENTAL HEALTH

[Every breath we take: the lifelong impact air pollution](#). Feb 23, 2016. UK physician's groups review health effects & costs of indoor and outdoor pollution, and call for action.

[Vision 2020: HEI Annual Report 2015](#). Health Effects Institute report on strategic plan and current research to address health impacts of fuels, fuel extraction, traffic, and air pollution.

[Synthetic Turf Studies](#). Ongoing health risk assessment of synthetic turf at **playgrounds** by California OEHHA. Workshops, webinars, factsheets, and slides.

ENERGY EFFICIENCY AND GREEN BUILDING

[QUALICheck Project](#). EU project to improve compliance of net zero energy buildings with energy, ventilation, air sealing, summer comfort, and renewables targets. Workshops, reports, webinars, training, news, and best practices. [The Lund 2015 workshop](#) focused on lessons learned and successes in enforcing ventilation and air tightness standards – several countries now require periodic inspections and testing.

[Cap and Trade Benefits for Disadvantaged Communities in California](#). News and information on implementation of SB 535, which requires 25% of cap and trade funds to go toward disadvantage communities.

[Best Practices for Energy Efficient Buildings](#). Consortium for Building Energy Innovation, Philadelphia, PA. R&D on [IEQ](#), [high performance wall retrofits and moisture control](#), HVAC retrofits, [masonry wall retrofits](#), and occupant behavior. Projects to [improve training](#) of realtors, assessors, and O&M personnel, facilitate financing, and improve energy code compliance.

COMMUNITY DEVELOPMENT AND URBAN PLANNING

[Creating Aging-Friendly Communities](#). Scharlach and Lenning, 2015.

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RESOURCES (continued)

AIR POLLUTION MONITORING

[Neighborhood-Scale Spatial Models of Diesel Exhaust Concentration Profile Using 1-Nitropyrene and Other Nitroarenes](#). Schulte et al., 2015.

FOSSIL FUELS

[Spills of Diluted Bitumen from Pipelines: A Comparative Study of Environmental Fate, Effects, and Response](#). National Academy of Sciences, Engineering, and Medicine, 2016.

[Air Pollution and Health Research at VTI](#) (Swedish National Road and Transport Research Institute). Research on why and how PM is hazardous to human health and which emission abatement strategies are efficient.

Studies of air pollution near rail lines. [Jaffe Research Group](#), University of Washington.

FUNDING OPPORTUNITIES (see list above)

RESEARCH AND DEMONSTRATION

IEQ (see links above)

ENVIRONMENTAL HEALTH

[PAH metabolites in women, children, and miners](#). Presentations on current research studies. California Biomonitoring Program, March 3, 2016.

[Inhaled Steroids Exacerbate Pollution's Effect on Asthma](#). [Ierodiakonou, et al. 2016](#).

Health effect and mechanism studies on diesel PM, phthalates, other air pollutants, and antioxidants. Completed and active studies. [Pollutant Lab](#), Vancouver General Hospital and UBC.

[Gene by Environment Investigation of Incident Lung Cancer Risk in African-Americans](#). David et al., 2016 (see editorial and reply also).

[Preterm birth and air pollution: Critical windows of exposure for women with asthma](#). Mendola et al., in press.

[Venting for Health](#). Improved ventilation effects on health in 120 New York City homes. Results due in 2016. NCHH, Steven Winter Associates, and HUD.

[Short-term exposure to traffic-related air pollution and daily mortality in London, UK](#). Atkinson et al., 2016.

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RESEARCH AND DEMONSTRATION ENVIRONMENTAL HEALTH (continued)

[Impact of traffic-related air pollution on acute changes in cardiac autonomic modulation during rest and physical activity: a cross-over study](#). Cole-Hunter et al., 2016.

[Nrf2-related gene expression and exposure to traffic-related air pollution in elderly subjects with cardiovascular disease: An exploratory panel study](#). Wittkopp et al., 2016.

[Prenatal air pollution exposure induces sexually dimorphic fetal programming of metabolic and neuroinflammatory outcomes in adult offspring](#). Zhang et al., 2014.

ENERGY EFFICIENCY

[Residential Energy Code Field Study](#). DOE, 2016. Evaluation of building energy code education, training, and outreach programs in eight states, including [Pennsylvania](#). Guidance documents, data forms, and webinars. [Preliminary results](#) are available.

RESILIENT DESIGN AND VULNERABILITY

[An update of the UK's design summer years: Probabilistic design summer years for enhanced overheating risk analysis in building design](#). Eames, 2016.

[Review on urban vegetation and particle air pollution – Deposition and dispersion](#). Janhäll (2015) report, and [journal article](#).

[Extreme heat adaptation plan and cures for "petroolism" in Quebec](#). Gosselin, 2013.

That's it for the March 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. Audio and video recordings from the Feb. 26, ROCIS Stakeholder meeting will be posted by March 14.

Cheers,
Tom

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