

HEADLINES

SRP Welcomes New and Returning Grantees

The Superfund Research Program is pleased to welcome the University of Pennsylvania as a newly funded Multiproject Center! We would also like to welcome back Dartmouth College, Northeastern University, and University of Kentucky on their new Multiproject awards!

The [University of Pennsylvania](#) Center is driven by community-based concerns of asbestos hazardous waste. The Center focuses on problem-based, solution-oriented research related to the theme of asbestos fate, exposure, remediation, and adverse health effects. The community of primary interest to the Penn SRP is surrounded and potentially impacted by the [BoRit EPA region 3 Superfund site](#).

[Dartmouth College](#) will continue their work to identify the major sources of arsenic and mercury exposure and to understand the effects of early life exposure to arsenic and mercury on human health. [Northeastern University's](#) Center is still focused on their Puerto Rico Testsite for Exploring Contamination Threats (PRoTECT) to study contaminants, with particular attention to chlorinated solvents and phthalates commonly found at Superfund sites, as both suspect and model agents in the high preterm birth rates in Puerto Rico. [University of Kentucky](#) research efforts continue to focus on the idea that some nutrition components, such as antioxidants, can counteract the negative health effects in people related to chemical exposures, such as PCBs, near Superfund sites.

Notice to Terminate RFA-ES-14-001 "Superfund Hazardous Substance Research and Training Program (P42)"

The SRP wanted to make you aware that the RFA ES-14-001 has been terminated, [notice number NOT-ES-14-008](#). This has no effect on existing programs, except those that were responding to this RFA. The new announcement for support starting in 2015 will be issued as soon as possible. Check the [SRP website](#) periodically for updates.

SRP Arsenic Webinars a Success

The [four web-based panel sessions](#) that supplemented the NIEHS/SRP workshop, "Health Effects and Mitigation of Arsenic: Current Research Efforts and Future Directions," concluded on June 3. The webinars were well attended and provided opportunities for panel discussion, which included answering questions and responding to comments submitted by webinar participants. These discussions will be captured in a manuscript that will describe the current state of arsenic research as it relates to human and environmental health. Stay tuned for more information from the webinars, which will be posted on the [Arsenic Panel Discussion Webinar Series](#) page.

NIH Announces New Biosketch Format

With strong support from NIH leadership, The NIH Office of Extramural Research will be rolling out a [new biosketch format](#). The new NIH biosketch emphasizes your accomplishments instead of just a list of publications. The primary focus of the new NIH biosketch will be the magnitude and significance of the scientific advances associated with a researcher's discoveries and the specific role the researcher played in those findings. For more about the new format, see the [NIH Rock Talk blog post](#).

IN THE NEWS

SRP in the Environmental Factor

This month, the NIEHS E-Factor featured three stories about the SRP and its grantees! Take a moment to read about some of our colleagues' latest activities.

- [Emerging concerns with PCBs in schools draw hundreds to SRP webinars](#)
- [Translating research into products to improve public health](#)
- [Prenatal arsenic exposure and altered protein expression](#)

EMPLOYMENT OPPORTUNITIES

Postdoctoral Research Associate - Northeastern University's Social Science Environmental Health Research Institute

Northeastern University's Social Science Environmental Health Research Institute (SSEHRI), in collaboration with the Department of Sociology and Anthropology and the Department of Health Sciences, seeks a postdoctoral research associate who studies ethical issues concerning emerging environmental contaminants and technologies. This one-year appointment is part of a Research Training Program, "New Directions in Environmental Ethics: Emerging Contaminants, Emerging Technologies, and Beyond," funded by NSF's Science Technology and Society (STS) Program, which currently funds three doctoral students.

Visit the [Northeastern jobs page](#) to apply. The position ideally starts September 1, 2014 but it is possible that a person earning their Ph.D. mid-year could have a January 1, 2015 start date. The position is open until filled.

Biology Research Positions at NIEHS

The National Institute of Environmental Health Sciences is recruiting for multiple full-time appointments at either the tenure-track or tenure-eligible level in the areas of molecular and cellular signaling, neuroscience, and developmental or reproductive biology. The successful candidates are expected to lead innovative, independent research programs on any fundamental aspect of research in the above three areas of interest which form a basis for understanding the effects of the environment on human health. Investigators in the NIH intramural program have no formal teaching duties and minimal administrative responsibilities.

The vacancies will remain open until they are filled. Visit the [NIEHS website](#) for more information.

Assistant Professor in Environmental Health - University of Iowa Department of Occupational and Environmental Health

SRP Grantees and Staff Well Represented at European Conference on Health and the Environment

NIEHS staff and grantees travelled to Cluj-Napoca, Romania in late May for the [Central and Eastern European Conference on Health and the Environment](#) to explore, promote, support, and provide health and environmental resources to representative individuals across Central and Eastern Europe. NIEHS SRP staff members Bill Suk, Danielle Carlin, and Michelle Heacock were on planning and other committees for the conference and gave presentations related to hazardous substances, vulnerable populations, and human health. At the conference, team members from Louisiana State University SRP, University of Arizona SRP, and University of Kentucky SRP participated in workshops, chaired sessions, and gave presentations. There are currently some photos from the event on the [LSU Facebook Page](#). Stay tuned for more photos and information from the conference on the [CEECH](#) website.

What a wonderful meeting and collaboration!

Stegeman Delivers NIEHS Keystone Lecture on Oceans and Human Health Research

Boston University SRP grantee John Stegeman (Woods Hole Oceanographic Institution) visited NIEHS to present a lecture on his work related to the NIEHS-funded Center for Oceans and Human Health. He discussed a wide range of his innovative research with a focus on studies at the intersection of cytochromes P450, pregnane X receptor, and effects of *ortho*-PCBs in small fish models, principally zebrafish. Stay tuned for more information about the talk in the July edition of the NIEHS E-Factor.

Interesting talk, John!

SRP Grantees Present at Toxicology and Risk Assessment Conference

SRP Program Administrator Heather Henry and EPA NCEA's Anu Mudipalli, organized a session on April 9 at the Toxicology and Risk Assessment Conference (TRAC) in West Chester Ohio titled "Integration of "-Omic" technologies in Metal Toxicity Studies: Contributions and Complexities in Risk Assessment". The presenters at this session were SRP Grantees [Rebecca Fry](#) (UNC), [Walt Klimecki](#) (University of Arizona), [Quan Lu](#) (Harvard School of Public Health), and [Chris Vulpe](#) (UC Berkeley). The speakers shared the exciting and intricate molecular data generated utilizing novel omics technologies in arsenic-induced alterations at the sub-cellular organization. The presenters also provided their outlook in utilizing these data for an integrated risk assessment paradigm in the coming years. Additional work from Rebecca's lab titled "Systems Biology: Unraveling transcriptional responses to environmental mixtures" was presented on April 10th .

Columbia SRP Presents Findings on Arsenic Impact on School Children to Maine CDC

Columbia SRP scientists Gail Wasserman, Joseph Graziano, and Nancy Lolocono presented findings from their research on the impact of arsenic on children's IQ to the Maine Center for Disease Control and Prevention (CDC) office in Augusta, Maine on May 1st. The Columbia SRP [study](#), published in the April issue of the journal Environmental Health, included 272 children in grades 3-5 in 3 Maine public school districts. The findings suggest that levels of Water Arsenic equal or greater than 5 µg/L levels, which are below EPA national standards and occur frequently in some US regions, could pose a threat to child development. The CU SRP scientists also translated their research findings for the representatives from three of the school districts whose students participated in the study. Read more on the [Columbia SRP website](#).

Nice work, Columbia!

Guerinot Featured on New Hampshire Public Radio

Dartmouth Investigator Mary Lou Guerinot was featured in a Public Radio segment on arsenic, cadmium, and other heavy metals in brown rice. She discusses her research at Dartmouth to better understand how heavy metals get into food and their research to determine strains of rice that naturally take up less arsenic. Visit the [nhpr website](#) to listen to the radio segment.

Interesting segment, Mary Lou!

More Field Testing Funded for Water Clean-Up Research

SRP grantee [Airlift Environmental, LLC](#) recently received a Nebraska Economic Development award to supplement its SRP Small Business Technology Transfer (STTR) grant. These additional funds will allow the business to expand the number of sites where it will conduct field-scale demonstrations and test its products for improving the treatment of contaminated water. Airlift, along with the University of Nebraska-Lincoln, developed two types of

The University of Iowa, College of Public Health invites applications for a tenure track faculty position at the level of Assistant Professor in Environmental Health with an emphasis in water and global sustainability. The successful candidate for this position will be expected to participate actively in an ambitious new multidisciplinary initiative in sustainability as well as teach courses, direct graduate thesis research, and develop an extramurally funded research program. Applicants must hold a Ph.D. or other doctorate in a relevant science or engineering field.

Position is open until filled. For more information and to apply, visit the [Iowa Job posting](#), requisition #63494.

Professor and Chair - Bioengineering Department at Northeastern

Northeastern University's College of Engineering seeks outstanding candidates for the position of Chair of Bioengineering.

Building on existing strengths, Northeastern University has recently formed the [Bioengineering Department](#). The Chair will be expected to provide a vision to direct the hiring of faculty, the creation of research foci, and the development of educational curricula. Qualified candidates will have demonstrated strategic vision through leadership of a well-established, well-funded and internationally recognized research program, as well as demonstrated excellence and significant experience in teaching (a minimum of five years) at both the undergraduate and graduate level. A doctoral degree in Bioengineering or another closely related field is required. For more information, visit the [Northeastern Jobs page](#). Position is open until filled.

CURRENT RESEARCH BRIEF

Research Brief #234: "[Gold Nanoparticles Offer a Simple and Inexpensive Way to Detect Mercury](#)" (Catherine Koshland, UC Berkeley SRP) is available online.

Past [Research Briefs](#) are available on the SRP's website.

To receive the monthly Research Briefs in your e-mail, please send your e-mail address to beth.anderson@nih.gov.

If you have ideas for future Research Briefs, please submit them to: beth.anderson@nih.gov.

SRP SUPPORTED EVENTS

Ag Innovation Entrepreneurship Academy

Grantee event: Co-sponsored by the

oxidant-paraffin cylinders, called candles, to remove chlorinated solvents and petroleum products from contaminated aquifers.

Nice work, Airlift Environmental!

Brown Hosts Vermont Vapor Intrusion Updates Workshop

The Brown Research Translation Core hosted a Vapor Intrusion workshop with the [Northeast Waste Management Officials' Association \(NEWMOA\)](#) for the Vermont Department of Environmental Conservation and environmental consultants on May 13, 2014. There were 60 attendees, mostly from VT, as well as three EPA region-1 engineers. Brown SRP Investigator Eric Suuberg provided an overview of the VI issue and a detailed description of Brown's VI modeling efforts and data.

Nice Research Translation, Brown!

VIMS Grantees Inform Remediation Project in the Elizabeth River

[Virginia Institute of Marine Science \(VIMS\)](#) individual research project grantees led by Mike Unger met with some of the leading capping and dredging design engineers in the U.S. in early June to review field data from their SRP research. Their SRP project is developing an antibody-based biosensor to measure PAH concentrations in porewater to predict bioaccumulation in oysters from contaminated sediments. During their field studies, they documented PAH concentrations in sediment, porewater, and oysters at various sites in the Elizabeth River, Virginia. The meeting provided the design engineers with all their available data on PAH concentrations in the Elizabeth River to help guide the detailed design of a Phase 3 remediation at Money Point, Elizabeth River, Virginia. For more on the project, visit the SRP project summary.

Great work, VIMS!

Henry Presents at Battelle Meeting on SRP Remediation Research

SRP Program Administrator Heather Henry presented at the "Ninth International Conference on Remediation of Chlorinated and Recalcitrant Compounds" Battelle Meeting in Monterey, CA on May 19, 2014. In her talk titled "Advances in Emerging and Recalcitrant Contaminant Detection, Remediation, and Exposures: Update on the NIEHS Superfund Research Program" she featured SRP research teams led by [Joseph Salanitro](#) (Microvi Biotechnologies), [Lisa Alvarez-Cohen](#) (UC Berkeley SRP), [Mark Christenson](#) (Airlift Environmental), [Kate Scow](#) (UC Davis), [Mark Weisner](#) and [Heather Stapleton](#), (Duke University), [Rolf Halden and Nancy Denslow](#) (Arizona State University and University of Florida), [Philippe Dekleva](#) (Advanced Microlabs), [Roger Giese](#) (Northeastern U). The emerging contaminants in the overview were 1,4-dioxane, perchlorate, perfluorooctonic acid (PFOA), polybrominated flame retardants, triclocarban and triclosan.

TRAINEE SPOTLIGHT

Ashwini Phadnis-Moghe, Ph.D., Michigan State University SRP

Ashwini Phadnis-Moghe, an MSU SRP trainee with investigator Norbert Kaminski, successfully defended her dissertation this semester! You may have seen Phadnis-Moghe at the 2013 SRP Annual meeting last fall where she was invited to speak on her research on the role of B-cell Lymphoma-6 (BCL-6) in TCDD-mediated impaired human B-cell activation.

Phadnis-Moghe's research involves studying the immunotoxic effects of TCDD in human cells. Her research has shown that TCDD-treatment of activated human peripheral blood B cells leads to suppression of B cell activation. The mechanism responsible for suppressed B cell activation and ultimately impairment of B cell differentiation into antibody secreting cells, involves, at least in part, the transcriptional repressor BCL-6. Specifically, her studies showed that TCDD treatment of B cells resulted in sustained high levels of BCL-6. Dysregulation of BCL-6, which leads to high level expression, often through mutation of BCL-6, is well established to be involved in Non-Hodgkin's Lymphoma. Epidemiological studies performed in areas of dioxin exposure have established an association between exposure to dioxin-like compounds and increased incidence of Non-hodgkin's lymphoma thus providing additional support to the role of BCL-6 in altered immune function.

Phadnis-Moghe's studies showed an increase in the proportion of BCL-6 expressing cells (BCL-6hi) in the presence of TCDD. Likewise, a decrease in the expression of activation markers CD80 and CD69 was seen in the BCL-6hi cells, which was blocked by with a small molecule inhibitor of BCL-6. Moreover, the research also highlights the role



University of California, Davis SRP
June 24-26, 2014
Davis, California

[Website](#)

Health Perspectives Study in the Marcellus Shale

Co-Hosted by the Harvard School of Public Health SRP
Date: June 26, 2014, 12:00-1:30 p.m. ET
Location: Boston, Massachusetts

[Website](#)

Biomedical and Engineering Entrepreneurship Academy

Grantee event: Co-sponsored by the University of California, Davis SRP
July 9-11, 2014
Davis, California

[Website](#)

Latin American Conference on Compatible Mining: Protecting Vulnerable Populations and the Surrounding Environment

Co-Hosted by the University of Arizona SRP
Date: September 8-10, 2014
Location: San Luis Potosí, Mexico

[Website](#)

The Eight International PCB Workshop: Exposure Effects, Remediation, and Regulation Co-Hosted by the University of Iowa SRP and the Boston University SRP

Date: October 5-9, 2014
Location: Woods Hole, Massachusetts

[Website](#)

Fourth Conference of Prenatal Programming and Toxicity (PPTOX IV)

Date: October 26-29, 2014
Location: Boston, Massachusetts

SRP Annual Meeting (Save the dates!)

Date: November 12-14, 2014
Location: San Jose, California

14th International Congress on Combustion By-Products and their Health Effects

Co-Sponsored by the Louisiana State University SRP
Date: June 14-17, 2015
Location: Umeå, Sweden

[Website](#)

OTHER CONFERENCES OF INTEREST

SETAC Asia Pacific and Australasia Conference

Date: September 14-17, 2014
Location: Adelaide, South Australia

[Website](#)

UPDATES FROM OTHER

of BCL-6 in repressing activation marker CD80 by binding to an enhancer region within the CD80 promoter in presence of TCDD thereby suggesting regulation of CD80 by BCL-6. Collectively, Phadnis-Moghe's studies suggest that TCDD treatment leads to an dysregulation of BCL-6 that impairs B cell activation and differentiation.

She has received awards from the Society of Toxicology for her research including the Harihara Mehendale best abstract award from the Association of Scientists of Indian Origin at SOT and another award from the Immunotoxicology Specialty Section for her work on TCDD-mediated suppression of B cell activation.

Phadnis-Moghe will be continuing in Dr. Kaminski's lab at Michigan State University for her postdoctoral research. As a part of her postdoctoral work, she will be characterizing a triple knockout rat model of inflammation and will study the role of TCDD in liver carcinogenesis using this model.

When Phadnis-Moghe gets time off of research, she likes to travel as much as possible. She loves trekking and visiting national parks. Last spring, she hiked up Angel's Landing trail at Zion National park! She also loves spending time cooking up new recipes in the kitchen.

HOT PUBLICATION

History and Impact of RDP: A Legacy from Carl Woese to Microbiology

MSU SRP grantees James Cole and James Tiedje published a [review](#) this year in the journal RNA Biology highlighting the history and impact of the Ribosomal Database Project (RDP). The RDP grew out of Carl Woese's vision of how rRNA comparative methods could transform biology. In the years since Woese started the RDP, publications describing the database and related tools have been cited more than 11,000 times in journals spanning a wide range of disciplines, while the RDP website is accessed by 10,000 researchers each month. This [article](#) describes the history of RDP's development over the last two decades, including the beginning days of RDP and the further development of the project at MSU.

AWARD WINNERS

Trainee Thomas Bruton Awarded Prize in Geosyntec Student Paper Competition

UC Berkeley SRP Trainee and PhD candidate Thomas Bruton was awarded a third place prize in the 2014 Geosyntec Student Paper Competition. Geosyntec Consultants is a consulting and engineering firm that works with private and public sector clients to address new ventures and complex problems involving our environment, natural resources, and civil infrastructure. Geosyntec sponsors the national competition and invites graduate students to submit research-based papers for the competition.

Congratulations, Thomas!

Sherr Wins Award for Breast Cancer Research

Not only did David Sherr become the new Boston University SRP Director on June 1, he was also just awarded, with David Seldin, a \$300,000 grant from the Avon Foundation to study the role of environmental chemicals in breast cancer stem cell development. This money is part of the \$3.9 million generated by Avon by their 2 day walk for breast cancer.

Congratulations, David!

Trainee James Watt wins Dean's Award at BU Scholars Day

Boston University SRP trainee James Watt won the School of Public Health Dean's Award at the Annual Boston University Scholars Day. The event celebrates research conducted by graduate students at the University. Watt was awarded a prize for his poster entitled "Emerging Toxicants Induce Adipogenesis and Suppress Osteogenesis in Mouse Mesenchymal Stromal Cells". Read more [online](#).

Congratulations James!

Training Core's Kristin Hicks receives NUCOE Outstanding Staff Award

Kristin Hicks, Executive Director of the PROTECT Training Core, received the 2014 Northeastern University College of Engineering Outstanding Staff Award. Kristin works closely with the training core team and the PROTECT leadership to provide an enhanced level of research and professional training for program trainees to become scientist-citizens. She coordinates professional development activities for the trainees and planning of education and outreach initiatives. She was instrumental in the development and execution of the [PROTECT Academy](#), a

SRP CENTERS

The e-Posted isn't the only way you can find out about news and events from the SRP Centers. The [SRP Grantee Newsletters and Pages website](#) has links to SRP Center electronic newsletters and Facebook pages and the [SRP News Page](#) has recent grantee news. Check them out to see the latest SRP news!

JOIN THE @SRP_NIEHS KNOWLEDGE NETWORK ON TWITTER

NIEHS uses Twitter, an increasingly popular social media tool, for information sharing. A "microblogging" service, Twitter allows users to distribute substantive content through messages called Tweets. SRP has escalated its Twitter posts and hope that you will join us as a follower. You will get routine Program updates and announcements.

Several SRP Centers are leading the way, and it would be great if all participated! Follow us: [@SRP_NIEHS](#) to instantly hear about news around the Program, key publications, events, and job opportunities for trainees.

CONTACT INFORMATION

Information on NIEHS SRP Program Contacts can be found here: [NIEHS SRP Program Staff and Contacts](#).

series of informative seminars that define and describe specific environmental health disciplines such that students, researchers and faculty who are not expert in those disciplines can meaningfully understand the disciplines' underlying concepts.

Congratulations Kristin!

Trainee Megan Creighton Wins Poster Award

Brown University trainee Megan Creighton received the prize for best poster among all of the attendees at the Annual Student Poster day at [Cabot Corporation](#) in Billerica, MA. The event included several technical talks from engineers within the company, a tour of the Cabot Business and Technology Center, and a poster competition for the students. Megan Creighton's award-winning poster was entitled "Two-Dimensional Materials as Emulsion Stabilizers: Interfacial Thermodynamics and Molecular Barrier Properties." The research investigates unique barrier properties in 2D nanomaterials, like graphene oxide, which can potentially be exploited for protective functions and in future safety applications.

Nice work, Megan!

CALL FOR ABSTRACTS

The Eighth International PCB Workshop: PCBs in Schools, Exposures, Effects, Remediation and Regulation

A primary objective of the PCB Workshops is to provide a unique, single forum for the world experts on issues of analysis, fate and transport, exposure assessment, metabolism and disposition, toxicity, and public health policy to come together and learn from each other. The Eighth International PCB Workshop in 2014 will include presentations on basic aspects of PCB chemistry, biology and toxicology, as well as a new emphasis on specific sites that are highly contaminated, including New Bedford Harbor, Indiana Harbor, and the issue of PCBs in schools. There will be broad input from scientists both within and outside of the Superfund Research Program.

The Workshop will take place in Woods Hole, MA. **October 5-9, 2014**. Abstract submissions close on **July 25, 2014**. Visit the [PCB Workshop website](#) for more information and to register.

FUNDING OPPORTUNITIES

CDC Soliciting New Grantees for Environmental Public Health Tracking Network

CDC just released a Funding Opportunity Announcement, "Implementation of the Environmental Public Health Tracking Network," with the intention of adding new grantees to the National Environmental Public Health Tracking Program. This is the first time new grantees have been solicited for the Tracking Program since 2009. Please note the short deadline: applications are due by June 24, 2014. CDC's Environmental Health Tracking Branch will host a call on **June 10 from 1:30 to 2:30 p.m. ET** to answer questions (Call-in number: 1-866-673-8322; Passcode: 2093678). Follow the instructions below to access the announcement and application package:

1. Go to: www.grants.gov
2. Select: "Applicants"
3. Select: "Apply for Grants"
4. Select: "Download a Grant Application Package"
5. Type in the Funding Opportunity Number, formatted as:
CDC-RFA-EH14-1405 (must type "CDC-RFA-")

WEBINARS

Catch of the Day: Healthy Fish, Healthy Humans

The health benefits of fish have been well documented. However, fish are vulnerable to contamination from toxic chemicals, including mercury and polychlorinated biphenyls (PCBs). This Collaborative on Health and the Environment call will feature SRP grantees Mark Hahn (Boston SRP) and Amy Kyle (UC Berkeley SRP). They will address issues such as how fish become contaminated, how they are tested for contaminants, the ecological impacts of water contamination, and the science behind fish consumption advisories.

The call is on **Tuesday June 10 at 1 pm EST**. Visit the [CHE website](#) for more about the call and to RSVP.

PEPH Webinar: Environmental Health Literacy

Environmental health literacy (EHL) bridges shared concepts from the fields of risk communication, environmental health science, behavioral science, evaluation, communications, public health, and the social sciences. As a new field, approaches and methods to raise EHL are evolving; therefore, attention to the evaluation of these approaches and validation of their effectiveness is needed. In this webinar, we will hear from two recognized experts in health literacy and environmental health communication who will set the context for EHL by highlighting the relation between health literacy and improved health outcomes, as well as how other fields contribute to EHL research.

The webinar will be held **June 24, 2014, 1:00-2:00 p.m. ET**. [Register online](#).

INTERAGENCY NEWS

IRIS Public Science Meeting (June 2014)

EPA has released the preliminary materials associated with the IRIS assessments of inorganic arsenic (iAs) and hexavalent chromium (Cr(VI)) for public comment and discussion. The scientific issues to be discussed at the meeting have been posted under meeting materials on the [EPA IRIS website](#) and meeting registration is now open. EPA will hold the June IRIS Public Science Meeting in **Arlington, VA on June 25-27, 2014. The meeting will also be available by webinar/ teleconference.**

The preliminary materials include information about: the uses and occurrence of iAs and Cr(VI) in the environment; why EPA is developing the assessments; the approaches for selecting primary studies to be included in the evidence tables; and the approach for evaluating methodological features of studies that will be important for the subsequent development of the draft IRIS assessments. In addition, the IRIS Program is using a new meeting format intended to promote public discussion. This format is designed to explore varying scientific perspectives from a diverse set of stakeholders on key science issues for the assessments in question. Stakeholders may also suggest additional key science issues to discuss at the meeting.

For more information and to view the meeting materials, visit the [EPA IRIS website](#).

EPA Seeking Public Comment on Enhancing Transparency for Chemicals and Mixtures Used in Hydraulic Fracturing

EPA is seeking public comment on which information could be reported and disclosed for hydraulic fracturing chemicals and mixtures and the approaches for obtaining this information. This Advance Notice of Proposed Rulemaking (ANPR) will help inform EPA's efforts to promote the transparency and safety of unconventional oil and gas activities while strengthening protection of our air, water, land and communities. This is an important step in increasing the public's access to information on chemicals used in hydraulic fracturing activities. Review the [ANPR](#), which includes a list of questions for stakeholders and the public to consider as they develop comments.