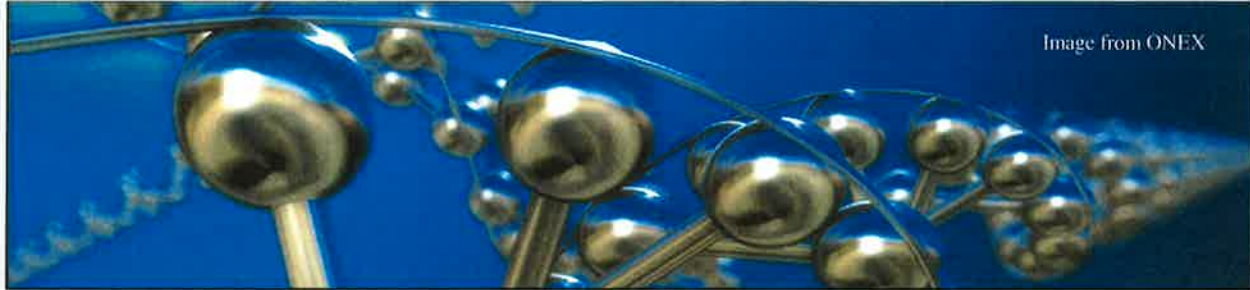


Thursday, October 6th at 5:30 PM
Engineer's Society of Western Pennsylvania
337 Fourth Avenue, Pittsburgh, PA 15222
Cost: Members \$20; Non-members \$25; Students \$10
1.0 PDH Certificate Upon Attendance

Implications of Engineered Nanomaterials on Drinking Water Sources

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Nanotechnology is a wide-reaching and rapidly expanding field that is producing materials at ten thousandth of a meter or less in size. Such growth has led to advances in science and engineering and to releases of these engineered nanomaterials (ENMs) to the environment, including drinking water sources. The potential health and safety risks of nanotechnology pose a concern for drinking water utilities because of their responsibility to protect public health by providing safe drinking water.

On Thursday October 6th, 2016 at 5:30 PM, Jeanne M. VanBriesen, Ph.D., P.E. from Carnegie Mellon University will present the latest findings from a study conducted at CMU reviewing the state of knowledge of ENM production and release, environmental fate and transport, detection in aquatic environments, and removal in drinking water treatment. The presence of sub-micron particles (e.g., viruses, colloids, clays) in natural waters is well-known, and drinking water treatment processes are designed to remove these particles. However, the increasing use of engineered nanomaterials which are designed and tailored for specific applications using novel shapes, configurations, and properties, has led to concerns about whether the unique characteristics that make ENMs appealing for novel applications also have implications for their presence in source waters and their persistence in drinking water treatment. The study's findings and the future engineering implications from the results of these studies will be discussed.

Join the Pittsburgh Section of the American Society of Civil Engineers and the Pittsburgh Chapter of the Environmental and Water Resources Institute for this important and timely seminar.



Jeanne M. VanBriesen, Ph.D., P.E., Carnegie Mellon University

Dr. Jeanne M. VanBriesen is the Duquesne Light Company Professor of Civil and Environmental Engineering at Carnegie Mellon University. Dr. VanBriesen holds a B.S. in Education and a M.S. and Ph.D. in Civil Engineering from Northwestern University. She is a licensed professional engineer in the state of Delaware. Her research is in environmental systems, including detection of biological agents in water systems, speciation-driven biogeochemistry of chelating agents and disinfection by-products, and impacts of energy extraction. Dr. VanBriesen has served on the board of the Association for Environmental Engineering and Science Professors, and she is currently serving on the U.S.EPA Science Advisory Board.

Program Schedule:

5:30-6:30 PM – Social, Cash Bar

6:30-7:30 PM – Buffet Dinner

7:30-8:30 PM – Presentation followed by Q&A

Register at <http://www.asce-pgh.org/> ** or email Timothy.Brett@xyleminc.com

**On-Line member registration for ASCE Members only. All other member organizations register via email.