William M. Barrett, Environmental Engineer in EPA's National Risk Management Research Laboratory

Land and Materials Management Division
Mailing Address

barrett.williamm@epa.gov

Areas of Expertise: Development of chemical process simulation-based tools for the evaluation of environmental impacts related to chemical manufacturing processes, including:

- Performance and cost of implementation and risk management issues related to the release and transport of asbestos from asbestos contaminated sites
- CAPE-OPEN Laboratories Network, which is responsible for developing and maintaining standard for component interoperation in chemical process simulators such as Aspen Plus and ChemCAD

Select Publications:

Smith, R., G. Ruiz-Mercado, D. Meyer, M. Gonzalez, J. Abraham, W. **Barrett**, and P. Randall. Coupling Computer-Aided Process Simulation and Estimations of Emissions and Land Use for Rapid Life Cycle Inventory Modeling. ACS Sustainable Chemistry & Engineering. American Chemical Society, Washington, DC, 5(5):3786-3794, 2017.

Mittal, V., S. Bailin, M. Gonzalez, D. Meyer, W. **Barrett**, and R. Smith. Toward Automated Inventory Modeling in Life Cycle Assessment: The Utility of Semantic Data Modeling to Predict Real-WorldChemical Production. ACS Sustainable Chemistry & Engineering. American Chemical Society, Washington, DC, 6:1961-1976, 2017.

Cashman, S., D. Meyer, W. Ingwersen, A. Edelen, J. Abraham, W. **Barrett**, M. Gonzalez, P. Randall, G. Ruiz-Mercado, and R. Smith. Mining Available Data from the United States Environmental Protection Agency to Support Rapid Life Cycle Inventory Modeling of Chemical Manufacturing. Environmental Science & Technology. American Chemical Society, Washington, DC, 50(17):9013-9025, 2016.

Barrett, W. M., J. Kominsky, J. Thornburg, and J. Konz. Releasable Asbestos Field Sampler (RAFS) Operation Manual. U.S. Environmental Protection Agency, Washington, DC, EPA/600/R-11/185, 2012.

Barrett, W. M. and J. van Baten. Evaluating Process Sustainability Using Flowsheet Monitoring. Chemical Engineering & Technology. Wiley-VCH Verlag GmbH & Co. KGaA, Weinheim, Germany, 35(8):1405-1411, 2012.

Kominsky, J. R., J. W. Thornburg, G. M. Shaul, **W. M. Barrett**, F. D. Hall, and J. Konz. Development of the Releasable Asbestos Field Sampler. Em: Air and Waste Management Association's Magazine For Environmental Managers. Air & Waste Management Association, Pittsburgh, PA, 60(3):294-301, 2010.

View more research publications by William M. Barrett

Education:

- PhD., University of South Florida, Tampa, FL; Environmental Engineering, 1998
- M.S.E., University of Central Florida, Orlando, FL; Environmental Engineering, 1989
- B.S.Ch.E., University of Florida, Gainesville, FL; Chemical; Engineering, 1987

Professional Experience:

Project Leads and Workgroups

- Methods and Tools Special Interest Group lead for the CAPE-OPEN Laboratories Network

Committees and Memberships

- Member, American Institute of Chemical Engineers

Awards and Honors

- 2010 - Regional Science Award, U.S. EPA
- 2001 - Postdoctoral Fellowship, U.S. EPA

Science Matters: Safer, More Sustainable Chemicals