



**Pre Conference Workshop FULL DAY
8:30 AM to 4:30 PM**

Know Your Pile: Measurements and methods to get the most from your composting process

Learn to read your pile's data and know which lever to pull!

In practice, there are many variations of the composting process and most of them can succeed in the appropriate application. What doesn't change from one method to the next are the fundamentals of composting science (biology, chemistry and physics) that determine the measurable performance of the process. The key to success is cost-effectively achieving the level of process performance that meets specific site requirements. Over-spending to optimize your facility is wasteful. On the other hand, if your process is underperforming you need to know what to measure and which specific metrics need to be improved to get out of trouble with regulators, neighbors and/or clients.

This class is intended to introduce attendees to science-based assessments of active and curing phase composting to allow them to optimize their processes to either reduce costs or improve performance. This approach is intended to minimize bias by relying on verifiable empirical data to test cause-and-effect relationships. This class will focus on the performance metrics that largely determine the length of time required for stability and the emissions of odors and regulated compounds (primarily VOCs and ammonia).

Instructor:

Tim O'Neill - President and Founder, Engineered Compost Systems

Baraka Poulin - Director of Business Development, Engineered Compost Systems

Charlie Krauter - Principal Engineer, Engineered Compost Systems

Fee: \$460.00 for USCC members, \$510.00 for nonmembers

Duration: 8:30 AM to 4:30 PM, with two breaks and one hour for lunch (on your own)

Date: February 1, 2027

CCOM™/CCP™ PDHs: 7

Agenda:

- Overview of Composting Science
- How to Take Field Measurements
- How Air Emissions are Measured
- The Levers Operators Have to Adjust the Level of Process Optimization
- Examples of Parameters Measured during Facility Audits and Solutions
- Problem Solving Workshop

About the Instructor

Tim O'Neill is president and founder of Engineered Compost Systems (ECS). He received his BS and MS in Mechanical Engineering at the University of Washington way back in the 1980's. He has worked as an engineer, researcher and entrepreneur in the composting industry since 1992 and currently serves on the Board of Trustees of the CREF. In recent years he has focused his efforts on leveraging peer-reviewed publications and science-based inquiries to better predict and explain the composting process in order to inform successful facility design, operations and permitting.

Baraka Poulin is Engineered Compost System's Director of Business Development. He joined ECS in 2019 and enjoys developing projects that make our planet a better place to live. Baraka worked in energy efficiency, pyrolysis, and gasification before happily landing in compost.

Charlie Krauter is a Principal engineer at ECS and lead developer of the CompTroller™, our automated compost process control system. He joined ECS in 2006 and divides his time among research, product development, engineering, and client support. Before ECS, he built tunnel boring machinery and worked as a software engineer — skills that now keep compost piles running smoothly instead of digging holes.