

SG Advanced Composting™ Technology



Sustainable Generation® stands at the forefront of composting innovation, dedicated to driving down costs, streamlining processes, and upholding rigorous environmental standards. Our innovative SG Advanced Composting™ technology accelerates composting time lines while ensuring regulatory compliance through seamless tracking and reporting mechanisms. Harnessing the power of our robust platform, clients achieve consistent, predictable, and reproducible results, mitigating regulatory risks and freeing up resources for other critical priorities.

Our experienced team of developers, application engineers, compost owner operators, and business development experts boasts over 200 years of collective expertise. Leveraging a dependable global network of supply partners and technical consultants, we ensure tailored solutions and regulatory compliance for projects of any scale and location.

Collaborating closely with your team, we customize solutions to precisely fit your unique requirements. From initial facility design and construction to ongoing management, our expert teams ensure that your composting system not only maximizes efficiency and effectiveness but also guarantees long-term viability.

SG BUNKER™ SYSTEM



For those that require the highest level of process control, consider the SG BUNKER® System with GORE® Cover. This SG Advanced Composting™ System achieves in-vessel performance and the highest level of process control, at a fraction of the cost of in-vessel, in-building with a biofilter, or tunnel systems.

The Sustainable Generation (SG) team fully supports your team through the entire process of setup, configuration, operational support, and technical training resulting in a quality compost product that meets all regulations, with a report to prove it. There is no need to invest in costly infrastructure or find end markets without assistance. With SG's expertise and guidance, the whole process is simple, fast, economical, and efficient – and we can help you scale up if that is what is intended to come next for you.

KEY FEATURES

LOW ENERGY CONSUMPTION

- SG's covered, aerated static pile design has lower energy consumption compared to negative, reverse, and timed positive ventilation systems
- A proprietary remote oxygen and temperature control system technology provides the highest level of process control and the most cost-efficient processing
- SG Advanced Composting™ Technology eliminates the need for costly, high-energy bio-filters

SIMPLE TO OPERATE

- Remotely monitor each pile with the SG Compost Control™ System via a browser based web interface.
- Few moving parts and maintenance required, typically only one operator required for every 10,000 tons processed annually

EFFECTIVE IN ALL CLIMATES

- SG and GORE® Cover technology are not influenced by weather or climate and do not need an enclosed building
- From the arid heat of the Mohave Desert to Finland's subzero snowy climate, SG's solution is a proven winner in any climate, be it hot, wet, dry, or freezing

VARIED INPUTS

- Treated wastewater sludge / biosolids, pulp and paper, manures and bedding, animal and chicken waste, fish waste, anaerobic digestates

MOISTURE MANAGEMENT

- Once the proper 55% - 65% moisture content is achieved on the initial mix recipe, our solution manages the moisture throughout the entire process with little or no need to add additional water

CONSISTENT HIGH COMPOST QUALITY

- Achieves the highest quality product in an 8 week process, matching your ROI goals
- Agricultural grade compost produced in as little as 4 weeks
- Fully hygienized stable output in as little as 3 weeks

TREATMENT COSTS PER TON

- Low energy consumption, few moving parts, and high level of process control results in low operational costs
- Clear separation of storm water from leachate eliminates the creation of contact/process water.
- Other ASP technology would need a roof over the compost pad resulting in higher capital costs
- Solar Power (Off-Grid) Options Available



COMPLIANCE FACTS

- Odor reduction >95-99% (Odor emission study)
- VOC emission: US/Cal: > 95% thus California Compliant for 80% (acc. to Rule 1133.3, Rule 4565, Rule 4566 & BACT)
- United States: Meets PFRP, VAR, Hygiene and ABPR EPA 503: Alt 5: Use of PFRP [503.32(a)(7) and (B)(1) of Appendix B]
- Lowest possible emission rate of methane (using CO2 equivalent) compared to all other technologies
- Waterproof and breathable GORE® Cover provides clear separation of storm water and leachate
- Protection from surface and groundwater contamination
- Bacterial and fungal retention > 99%
- Dust and Particulate Matter (PM) retention also exceeds 99% (based on Dr. Kuhner's Thesis Emission Study)